Thank you to everyone who features in this Annual Review.

Five-year-old Bella inspired others to Stand Up To Cancer, read her story on page 28.
We’ve made remarkable progress in the fight against cancer, thanks to the collective endeavour of our scientists, doctors, supporters and volunteers.

Joining forces with Channel 4 we launched ‘Stand Up To Cancer’, a fundraising initiative that included a live telethon. So far, it’s raised over £8 million to fund clinical trials, which will bring benefits to more people with cancer. We also refreshed our brand. Our strengthened identity will help us gain the support we need to save more lives.

Significant challenges lay ahead. The risk of being diagnosed with cancer is rising. By working together we will beat more cancers sooner.

Thank you for your support. Our work is only possible because of your generosity.
We are the world’s leading 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.

Thanks to our volunteers and supporters, our scientists, doctors and nurses are working to save more lives by preventing, controlling and curing cancer.

Together, we’re leading the world in discovering and developing newer, kinder treatments. As a result, we’ve helped double survival rates in just 40 years. This progress wouldn’t have been possible without your support.

Today, people with breast, bowel and ovarian cancers and non-Hodgkin lymphoma are twice as likely to survive for at least 10 years as those diagnosed in the early 1970s. And survival rates for leukaemia have quadrupled.

We can’t stop here. There’s so much more we need to do – particularly for patients with cancers that remain harder to treat, such as lung, pancreatic and oesophageal and brain tumours.

One day we will find cures for all cancers. Help us make it sooner.

4,000

We fund over 4,000 scientists, doctors and nurses across the UK.
Adel’s story
‘When I was diagnosed with breast cancer, I had to be treated straight away,’ says Adel Pinnock, 43, from Birmingham. ‘It was a very difficult time.

I had chemotherapy, breast surgery, radiotherapy, and I’ve taken Herceptin. It took a while, but I bounced back. Now, things are fantastic and I’m better than ever.

I’m enjoying spending time with my daughter and supporting others. My music is really important too – it became part of my therapy and helped me through the treatment.

I’m so grateful for the hard work that’s already been done by scientists – I’ve received the benefits. I’m living proof that research kills cancer.

No matter how big or small your contribution is to Cancer Research UK, it’s so significant. Everyone who gives their time or money is part of the bigger picture.’

The drug Adel was given, Herceptin, was developed following a key discovery made by scientists at our London Research Institute. It’s helped thousands of women.

‘I’m living proof that research kills cancer.’
Adel Pinnock
ON FRIDAYS
CHAPTER 1:
IMPROVING TREATMENTS

I’M EATING CURRIES AGAIN!

Thanks to improved radiotherapy, Oliver is back doing what he enjoys. Read more on page 11.
KINDER WAYS TO TREAT CANCER

Every day our scientists search for kinder cancer treatments. They are developing new approaches that, while still powerful, are less invasive with fewer side effects – giving people a better quality of life during and after their treatment.

Wendy’s life-changing decision
After going through all the options with her doctor, Wendy Powell made a decision that could have saved her life.

“When I was told I had bladder cancer, it was a big shock,” says Wendy, 50, from Birmingham. “They said the tumour was the size of a lemon. The doctors mentioned there was a trial to test a new treatment, so I decided to give it a try. I was keen to get rid of the tumour.”

Wendy took part in an innovative trial that we funded to investigate whether low doses of chemotherapy during radiotherapy – chemoradiotherapy – can help improve outcomes for people receiving treatment for bladder cancer.

A common way to treat bladder cancer that has spread is to remove the bladder – this is radical surgery that has life-long effects. Until recently, the only alternative has been radiotherapy. But for around a third of people treated with radiotherapy, their cancer eventually comes back and they need to have their bladder removed anyway.

Our trial showed that people treated with chemoradiotherapy are nearly 50% less likely to see their cancer return compared to those given radiotherapy alone. The combined treatment works better because the chemotherapy makes the tumour more sensitive to radiotherapy.

Over 10,000 people are diagnosed with bladder cancer every year in the UK. ‘This practice-changing trial provides a lifeline for those too old or weak for surgery,’ says Professor Nick James from the University of Birmingham, co-leader of the trial. ‘The results mean that, in future, fewer patients will need to have their bladder removed.’

Amy: surviving thyroid cancer
‘When the nurses came in to give me a meal, I’d have to stay in the far corner of my room and wait for them to leave before I could pick it up. The radioactive drug I’d taken meant I couldn’t go near anyone. It was difficult being isolated from my family, but thankfully it was brief – I was home in less than 24 hours.’

Amy Horton (pictured right) from Scarborough is describing her treatment for thyroid cancer. She was diagnosed when she was 21.

Treating thyroid cancer involves surgery to remove the entire thyroid gland, followed by a dose of radioactive iodine which destroys any remaining cancer cells. Due to the effects, patients usually have to spend at least two days in hospital in complete isolation.

Amy took part in a trial run by our scientists to improve and speed up this treatment. They found that thanks partly to improvements in surgery, thyroid cancer can be treated just as effectively using lower doses of radioactive iodine.
‘The experience inspired me to follow my dream to become a doctor.’

Amy Horton

‘This means people spend less time in hospital away from the support of their family and friends,’ explains Dr Ujjal Mallick, based at the Freeman Hospital, Newcastle, who led the national trial. ‘The other great advantage is that because a smaller dose of radiation is used, there’s a lower risk of side effects. This leads to a better quality of life, which is very good news for patients.’

The trial also showed that with a simple injection people can continue taking thyroxine during treatment. Thyroxine replaces hormones that would have been produced by the thyroid gland and helps avoid side effects such as exhaustion and weight gain. So, overall, treatment and recovery are quicker.

‘I feel privileged and lucky that I had the treatment I did,’ says Amy. ‘If I’d had the higher dose and stopped taking my thyroxine, the impact on my life would have been much worse. I may not have been able to finish my year at university – so I don’t think I’d be where I am today.’

Following her time in hospital, Amy, now 25, made a big decision. ‘When I was given the all clear, it was time to start living my life again,’ she says. ‘The experience inspired me to follow my dream to become a doctor. I am happier than I ever thought possible and living the life I always wanted.

When you have thyroid cancer, the treatment is the worst part of it. It’s the thing that makes you feel the most ill. Anything that can be done to improve it – be that reducing the duration or the side effects – is hugely important.

More than 2,500 people are diagnosed with thyroid cancer in the UK every year. It’s one of the most common types of cancer in females under the age of 24.
What hasn’t changed is that surgery is still the main treatment. But it can be traumatic and may not always remove the entire tumour. To cure more people, we need to find ways to make it even better.

We’re funding Dion and his team at Birmingham University to do exactly that. They’re carrying out a trial to find out whether giving some people with bowel cancer chemotherapy before surgery can significantly shrink their tumours, making them easier to remove. This would radically change the way the disease is treated and, most importantly, reduce the chance of the cancer coming back.

Giving chemotherapy before surgery is already standard practice for many cancers of the digestive system. But until now, doctors thought it was too risky to use this approach for bowel cancer.

This is because if people didn’t respond to the treatment, the tumour could continue growing until it blocked the bowel.

‘We’re using advanced techniques to take images that help us select patients who would benefit from receiving chemotherapy before surgery,’ says Dion. ‘It’s a great example of different specialists working together.’

**Finding the most effective treatment**

Early results from the trial show that pre-surgery chemotherapy could be a life-saving option for some people with bowel cancer.

Alan Sugden, 64 (pictured), who lives in Kidderminster, took part in the trial. He was diagnosed with bowel cancer after visiting his GP with suspected haemorrhoids.

Having three courses of chemotherapy before surgery helped shrink Alan’s tumour, making it safer for his surgeon to remove.

‘After the operation, the surgeon came out and said “we’ve got it all”. I was so relieved,’ says Alan, who recently became a granddad and enjoys golf. ‘The more research that can be done to find the most effective treatment, the better for everyone.’

Next, Dion and his team will look at genetic testing of tumours to personalise chemotherapy drugs for individual patients. ‘This could make a huge difference to the way we treat bowel cancer within five years.’

‘We’ve seen enormous improvements in bowel cancer treatment since I started my career researching the disease 25 years ago,’ says Professor Dion Morton. ‘Then, around three out of 10 people with the disease survived. Now, it’s more than half.’
‘My cancer was treatable and that’s thanks to the work of organisations like Cancer Research UK. Trials like this give us all a fighting chance.’

Alan Sugden
A FORGOTTEN HERO

Radiotherapy has undergone a major revolution in the last decade – and you’re helping us give this treatment the attention it deserves. ‘It’s the forgotten hero of cancer therapy,’ says Professor Tim Maughan, who’s based at our Gray Institute in Oxford. ‘Radiotherapy is highly effective and helps cure the disease. In fact, four in 10 people who beat cancer receive radiotherapy as part of their treatment.’

We fund the research of radiotherapy experts like Tim (pictured left) to make this vital treatment more effective and kinder for people with cancer. We also campaign to make the latest techniques available to as many people as possible.

Over 36,000 supporters signed up to our ‘Voice for Radiotherapy’ campaign, asking the Government to improve radiotherapy services. And in 2012, thanks to your support, a new £23 million Radiotherapy Innovation fund was made available in England so that thousands more people can benefit from the latest types of radiotherapy. This includes techniques such as intensity modulated radiotherapy (IMRT), which targets tumours more precisely, minimising damage to healthy tissue.

The Government asked us to help distribute the fund to hospitals that need it most, to make a real difference for patients.

Curing more people
Tim hopes the fund will also help raise awareness that today’s radiotherapy is kinder than ever before. ‘Modern radiotherapy has fewer side effects and could be the best option for even more people in the future,’ he says.

At the same time as launching the fund, the Prime Minister made a pledge. He said that from April 2013, anyone with cancer in England will have access to the most up-to-date types of radiotherapy, no matter where they live, if their doctors say they need them.

With your support, we’ll continue to campaign for better radiotherapy services to make this pledge a reality. And we need to make sure this commitment is also in place across the rest of the UK too. We want everyone who would benefit from this treatment to get access to it.

‘The more options we have to accurately treat cancer, the more people we can cure,’ says Tim.

Oliver’s story
‘I was diagnosed with tonsil cancer in 2009,’ says Oliver, 49, from London. ‘I didn’t know a lot about radiotherapy before my treatment, but I’ve learnt it’s something of an unsung hero.

I had a treatment called IMRT as part of a trial funded by Cancer Research UK, which investigated whether this newer type of radiotherapy was less damaging to the tissue surrounding the cancer. This means fewer side effects – like a very dry mouth and soreness that can stop you being able to cope with strong tastes or spicy food.

I suffered with a dry mouth when I had radiotherapy because I had a cold, and I found the sensation very uncomfortable. Fortunately that was only short term, and my mouth is producing saliva again now. I can’t imagine what it would be like living with that full time. I can even eat what I want now, and enjoy my favourite curry again.

I’m lucky that because my treatment was so precise, I can now lead a regular life. Radiotherapy helps treat so many people – it deserves recognition.’
CHAPTER 2: CHALLENGES WE FACE

I’m alive because of research.

Survival rates remain far too low for some cancers, such as pancreatic and oesophageal. We’re making this research an urgent priority; find out more on page 18.
CREATING MORE TOMORROWS

Boys born in 2015 will be almost three times more likely to be diagnosed with prostate cancer at some point in their lives than those born in 1990. It’s why we’re funding research to better detect, treat and cure this disease.

Malcolm’s view
We’re developing a new test to detect prostate cancer. Here, Professor Malcolm Mason, our prostate cancer expert, based at Velindre Hospital in Cardiff, talks about this pioneering research.

‘We know that the number of men diagnosed with prostate cancer will increase in the future. This is because we have an ageing population — and doctors are testing for it more.

Most prostate cancers are slow-growing tumours that aren’t likely to do harm in a man’s lifetime. But a minority are more aggressive and need urgent treatment.

The current test we use to help diagnose prostate cancer measures the amount of a protein called PSA in the blood. This detects prostate cancers that will never be life-threatening as well as aggressive forms of the disease. But because it cannot distinguish between the two, the test can lead to men receiving treatment they may not have needed.

Our scientists are developing a new test. It reads genetic changes in the blood, like a scanner deciphers a barcode, to predict how fast-growing a man’s prostate cancer is likely to be. It could be used alongside the PSA test, allowing doctors to tailor treatment.

This would mean that men at high risk of developing aggressive prostate cancer will receive urgent treatment, while men with slow-growing tumours can be carefully monitored instead and may never need treatment.

In the next 10 years, I think tests to identify men at high risk of aggressive prostate cancer will become a reality, and as treatments are improving, we’ll also have the tools to cure them. Things have come a long way. We’re poised to meet the challenges ahead.’

In 1938 our researchers developed the first hormone treatment for prostate cancer, paving the way for the treatments used today.

Our research continues to make a difference...

1994
BRCA2 gene. Our researchers discovered BRCA2. Faults in this gene can significantly increase a man’s risk of developing prostate cancer.

2000
Targeted radiotherapy. Around eight out of 10 men with prostate cancer could benefit from intensity modulated radiotherapy treatment, a more precise technique that we pioneered.

2009
PSA testing. We produced information packs to help GPs explain the benefits and limitations of this test, which measures the amount of PSA protein in the blood.
Abiraterone. We were delighted when this drug was made available on the NHS after we pushed for more men with aggressive prostate cancer to receive it. We helped to discover abiraterone, which helps men live longer, giving them valuable extra time with their families. Our researchers are now testing whether men with this disease would benefit from being given this drug earlier in their treatment.

And we’re looking at new drug combinations, aiming to make treatments even more effective.

2012

John’s story
‘My prostate cancer is aggressive,’ says John Ebbs, 74 (pictured), who lives in Wirral. ‘Current treatments help me for a while, but then they stop working and I need something else.

I was diagnosed in 2000; it felt like I’d been hit with a sledgehammer. I had surgery within six weeks. Then, four years later, it came back and I was put on Zoladex, a hormone therapy, and had 10 courses of chemotherapy.

The disease advanced two years ago and I agreed to take part in a trial testing abiraterone. It seemed to be effective and, luckily, I didn’t have any side effects.

I’m trying another new treatment now and feel fine, but I have problems with my leg and scans show the tumour has developed around my hip. I want to live for as long as I can to watch my grandchildren grow up.

Trials testing new drugs and research to find better ways to detect and treat this disease are important because they will help future generations – maybe even my sons.’

2013

Genetic markers.
Our scientists discovered 23 genetic markers linked to an increased risk of prostate cancer. We hope to use this information to develop a salvia test, for men at high risk of developing the disease.
COULD A BLOOD TEST CHANGE CANCER TREATMENT?

Our scientists have developed a blood test with the potential to be a game-changer in the way cancer is treated in the future. They discovered that DNA in the blood could reveal essential information about how a tumour develops. This could help doctors monitor any changes as they happen.

‘One of the biggest challenges we face when treating cancer is the fact that tumours are constantly evolving,’ says our researcher, Dr Nitzan Rosenfeld (pictured right). ‘This allows cancer to become resistant to many of the drugs we currently give to patients.’

At the moment, the only way to track how someone’s cancer is changing is through regular biopsies, where doctors take a sample of the tumour. In most cases this involves surgery; in others it may not be possible to reach the cancer. But a biopsy only gives part of the story. It does not always capture information about all the changes in a tumour or what is happening when cancer spreads.

By bringing together scientists – from clinicians to data experts – Nitzan and the team at our Cambridge Institute have shown that a blood test can be used to analyse DNA from a tumour. Because dying cancer cells throughout the body shed DNA into the bloodstream, the test gives a fuller picture of how the disease is developing.

Choosing the best treatments
‘From this blood sample, we can learn what parts of the cancer’s genetic code are changing, making it resistant to chemotherapy or other treatments,’ says Nitzan.

‘One day this blood test could provide doctors with a quick and simple way to identify whether treatment is working. If it’s not, the information can help doctors decide on the next course of action that will hopefully have a better outcome. It could even help select patients for trials of new treatments that target their specific cancer.’
Yasmin Kidwai’s dad Shaukat had always loved his food. When he began to lose his appetite and started losing lots of weight, she knew something was wrong.

‘Dad was diagnosed with pancreatic cancer in 2006,’ says Yasmin, 40, from London. ‘He was quickly given chemotherapy and responded well at first. But the symptoms returned and scans showed the tumour had grown.’

‘He died 18 months later. We miss him and talk about him every day. We’re lucky to have the medical care we have in the UK. But breakthroughs are needed – and this will only happen with more research. My dad had no more options.’

Pancreatic cancer remains challenging. But we’re working hard to change this, funding research that’s looking at new ways of treating the disease.

‘We desperately need better treatments,’ says Professor Duncan Jodrell, our pancreatic cancer expert from the University of Cambridge. ‘Many people are diagnosed when their cancer has spread, making it very difficult to treat. Unlike other cancers, this disease doesn’t respond well to standard chemotherapy.

Early results from lab research are promising. They show that combining chemotherapy with an experimental drug sets off a chain of events that ultimately kills pancreatic cancer cells.’

Duncan is already running a clinical trial to see if this approach works in patients. ‘We have more work to do, but we’re hopeful that this research might lead to a new treatment for pancreatic cancer.’
A different approach for oesophageal cancer

We need better treatments for people with advanced oesophageal cancer, who are often diagnosed at a late stage when few options are available. To combat this we’re funding a trial of a new combination of drugs that could save more lives.

We’ve launched this trial as part of an exciting collaboration between industry and cancer researchers, giving more people the chance to take part in trials of potential treatments.

Pharmaceutical companies provide details of new drugs they are developing, allowing our researchers to test how they might work with existing cancer treatments. It means these drugs can be tested in more types of cancer, and in different combinations, than would otherwise be possible. We hope this will lead to more options for people like Laurel Johnson (pictured left), who was diagnosed with oesophageal cancer in 2006.

‘I had a sore throat and was choking a lot while eating and drinking. When I was told I had cancer, I felt like my head went into orbit,’ says Laurel, 56, who lives in London. ‘It didn’t sink in until my final consultation, just before my radiotherapy and chemotherapy.’

Laurel couldn’t have surgery because of the position of her tumour and how quickly it was growing. ‘Treatment was a long haul, I couldn’t eat for months. I spent a lot of time in hospital,’ she says. ‘It’s thanks to research that I’m here today. It would be great to see treatments improve further for other people with oesophageal cancer.’

Thanks to your support, we’ve been able to set up collaborations and develop new approaches to tackle cancers that are hard to treat. This progress is saving the lives of people like Laurel and giving hope to families like Yasmin’s.

‘It’s thanks to research that I’m here today. It would be great to see treatments improve further for other people with oesophageal cancer.’

Laurel Johnson
CHAPTER 3: ADAPTING CURRENT TREATMENTS

WE HAVE WITH OUR SON IS PRECIOUS

‘One minute he was splashing around in the bath, the next we’re in hospital’.
Read four-year-old Hamish’s story on page 24.
‘In 2002 we showed that a molecule called BRAF is faulty in more than half of melanomas. That discovery led to a new treatment – vemurafenib – that homes in on faulty BRAF in cancer cells.

Vemurafenib is one of the first new melanoma treatments in over 30 years. Sadly after initial success this drug often stops working, and people are left with limited treatment options. My team has been working out how to prevent this happening.

We’ve discovered a second molecule that protects melanoma. It fuels the cancer, allowing it to continue growing when vemurafenib fails. However, we know a lot about this molecule because it’s involved in lung cancer, which means we already have drugs that work against it.

Our idea was to see if these lung cancer drugs would kill melanoma cells that had stopped responding to vemurafenib. Our research in the lab has been successful, and shows that the lung cancer drugs stop some melanoma cells from growing.

This is a vital step towards treating the disease more effectively. Now we’re planning to combine the treatments and run trials to confirm this works in patients. We hope our research will speed up progress and help more people survive melanoma for longer.

There are huge advantages to this approach. If a drug is already being used to treat patients, we know it’s safe because it’s already gone through many years of testing. So getting these drugs to patients is much faster than developing new drugs from scratch.’

Professor Richard Marais and his team at our Paterson Institute in Manchester have made an exciting discovery. Here, he explains how adding a lung cancer drug to an existing treatment could provide new options for people with malignant melanoma, the most dangerous form of skin cancer.

Nearly 13,000 people in the UK are diagnosed with melanoma each year.
‘We hope our research will speed up progress and help more people survive melanoma for longer.’

Professor Richard Marais
This year we’ve funded exciting research to beat rhabdomyosarcoma, a rare cancer that starts in the muscle. Over 70% of people survive the disease but only around one in three responds to treatment if their cancer returns.

Our scientists are leading pioneering trials to find out whether a chemotherapy drug called temozolomide could give people a better chance of beating rhabdomyosarcoma if it does come back. We developed this drug over 30 years ago for brain tumours. This work shows how new uses can be found for drugs originally developed for one type of cancer.

‘Existing drugs might benefit a whole new group of patients by controlling the disease, reducing side effects of treatment or getting rid of their cancer altogether,’ says Dr Julia Chisholm, at The Royal Marsden, who is leading the research.

‘We hope that this research will give us a much better treatment for people whose rhabdomyosarcoma has returned – offering patients a better chance of beating the disease.’

Thanks to your support, we’re building on our knowledge to find better treatments for children and adults affected by rare cancers.
The Heys’ story
It started as a Saturday night like any other for the Hey family (pictured above). They’d spent the day together at home in Nairn, Scotland, and dad Sam was bathing two-year-old Hamish before bedtime. When Sam noticed a lump above his son’s left knee, the family’s life changed in a moment.

‘One minute Hamish was splashing around in the bath, the next, we’re in hospital being told the most awful news,’ says mum Susan. ‘He was diagnosed with an aggressive form of rhabdomyosarcoma, and we feared it would kill him.’

The Heys temporarily moved to be closer to Hamish at Glasgow’s Yorkhill Royal Hospital for Sick Children as he started 14 months of treatment, including chemotherapy and radiotherapy. ‘He had to go through so much and had a really hard time with the treatment,’ says Susan.

Hamish is now four and his condition is stable. He had radical surgery to remove the tumour and now has an artificial leg, which he calls his ‘special leg’. ‘Hamish is a determined, happy little boy,’ says Susan. ‘It’s thanks to research into rare cancers that he’s here today.’

Susan welcomes the news of new treatment options for people affected by rhabdomyosarcoma. ‘It’s fantastic,’ she says. ‘We need better treatments and more of them. Every day we have with Hamish is precious. Cancer Research UK is doing amazing work to help more people beat cancer.’
CHAPTER 4:
COLLABORATION AND ENGAGEMENT

WE SPOTTED
ROGUE
CELLS

You could help find cures for cancer without leaving home. Read about our pioneering citizen science project on page 31.
Five-year-old Bella Phillips loves performing. She stood up to cancer so she could fulfil her dream of being a ballerina.

‘When Bella (pictured right) was in hospital three years ago having treatment for her kidney tumour, she loved to keep her visitors entertained,’ says mum Sian. ‘She did not cry or moan through her nine months of chemotherapy and three operations. In fact, she cheered people up who came to see her by telling jokes and playing games.’

Inspired by stories like Bella’s, you helped raise over £8 million through this year’s ‘Stand Up To Cancer’ campaign, the UK’s first-ever live telethon for cancer research.

In October 2012, millions of people across the UK united behind the cause in an unforgettable night of fundraising live on Channel 4. Over 400,000 donations were made on the night, more than 80,000 people visited the Stand Up To Cancer website and there were 1,000 tweets every minute the campaign was on air.

Hosted by presenter Davina McCall, comedian Alan Carr and TV doctor Dr Christian Jessen, the show saw stars from film, TV and music come together to make their stand against cancer. The money you raised has now been allocated to 12 clinical trials across the UK, which aim to have an impact on the lives of people with cancer within a few years. This will ensure that new life-saving tests or treatments get to patients faster.

‘We watched Stand Up To Cancer together and it helped us talk about what happened to Bella,’ says Sian. ‘She’s been in remission for two years and is doing absolutely fantastically. It’s crucial that we have events like this to raise much-needed funds for research and awareness of how cancer affects people’s lives.’

Making cancer powerless
We’re thrilled that we’ll be continuing to work with Channel 4 on Stand Up To Cancer. Together we will unite the UK to raise money that speeds up groundbreaking research and brings forward the day when all cancers are cured.

‘I know from personal experience how important it is to continue to make progress in beating cancer,’ says Lawrence Dallaglio, who took part in the campaign in memory of his mum Eileen. ‘Stand Up To Cancer is helping raise vital funds and ultimately saving more lives.’
Imagine the collective force of thousands of ordinary people finding cures for cancer, with just a few clicks of their mouse. It may sound like a vision of the future, but it’s already happening – thanks to our pioneering citizen science project. A world first, this work could change cancer research forever.

Every day our scientists analyse huge amounts of data that could hold vital clues to the cancer treatments of the future. But they simply can’t get through it fast enough.

That’s where Cell Slider comes in. Our unique interactive website means you no longer need to be a scientist to get involved in cancer research. In fact anyone, anywhere in the world, can help speed up scientific breakthroughs.

The site holds data from an important international breast cancer trial. Together, our citizen scientists are helping to classify these samples, to unlock precious information about why some women respond to treatment and others don’t.

‘The clues to why some treatments work for different people are held in data which could be most accurately analysed by the human eye – taking years,’ says Professor Diana Eccles, who helped set up the project. ‘By harnessing the collective power of citizen scientists we may speed up the pace of research leading to more personalised treatments for cancer.’

Bringing us closer to breakthroughs

After a quick tutorial, anyone can start analysing the data on Cell Slider. They match up images of tumour samples, a bit like a game of snap. Several people will look at the same image so mistakes can be discounted.

By using the power of the public eye, our 1,000,000th tumour sample was matched in April 2013. In just three months, citizen scientists had helped to analyse data that would normally take our researchers 18 months.

We won’t stop there. We’re already planning our next projects, which include a game people can play on their mobile phones that will help analyse even more data. Our experts joined forces with technology gurus from Amazon, Facebook and Google for a weekend ‘game jam’ in spring 2013 to develop this next innovation.

We know there are cures for cancers buried in our data. With a few minutes of your time, you could help find them. Start today at cellslider.net
WE’RE COMING AT CANCER FROM ALL ANGLES

If we’re going to beat cancer, we need to get people talking about it. The earlier the disease is diagnosed, the greater the chance of treating it successfully. So, we’re working on a range of ways to arm the public, and health professionals, with the information they need to understand cancer and spot signs and symptoms.

Bringing cancer information to the high street
London’s empty shops are being transformed into pop-up cancer information centres as part of the ‘Get to Know Cancer’ campaign, a partnership between the NHS and London’s boroughs.

In high streets and shopping centres across the capital, the shops are staffed by specialist cancer nurses and a team of volunteers. They help people understand that cancer can be beaten, how to recognise signs and symptoms and encourage them to visit their GP with any concerns.

We’re supporting the campaign by providing cancer information and recruiting and training volunteer ‘cancer activists’ to work in the shops alongside specialist cancer nurses.

So far, there have been pop-up shops in Croydon and Edmonton, with five more planned, the first two of which will be in Islington and in Haringey.

Helping GPs diagnose skin cancer earlier
Over the last 30 years, rates of skin cancers in Britain have risen faster than any of the other most common cancers.

It’s why we’ve been working with the British Association of Dermatologists to create a skin cancer recognition toolkit for GPs.

Hosted online by Doctors.net.uk, the toolkit helps support GPs to refer people with suspected skin cancer as early and accurately as possible.

It includes a library of images collected by dermatologists, which helps GPs recognise and categorise skin lesions according to how urgently they need treating.

Almost 10,000 doctors have used the toolkit, with around a third returning to it for more information.

GPs who used it told us they were more confident in knowing how to refer patients appropriately.

People who are referred and are treated early have the best chance of successful treatment.

This is part of our ongoing work with Doctors.net.uk to provide information that supports GPs to diagnose cancer as early as possible.
A day in the life of a cancer activist
Lindsay Brown, 23, volunteered at the pop-up shop in Edmonton Green Shopping Centre in February 2013.

9.30am: I arrive at the shop and have a cup of tea with the other volunteers and cancer nurses. We make sure all the information booklets and leaflets are stocked up, before heading out onto the street to hand out flyers and encourage people to come in for a chat. It’s quite a shocking topic to bring up with people while they’re shopping. But everyone has a connection to cancer. At the shop people can talk about anything – not just symptoms but bereavement and how to reduce the risk of cancer, such as giving up smoking.

12pm: A gentleman stops and takes a flyer. I can tell he’s worried and wants to talk more, so I encourage him to come and have a cup of tea with me. Afterwards he has a long talk with the nurse, who books him an appointment with a drop-in centre. He’d had symptoms for a long time but didn’t feel comfortable seeing his GP. He felt safe with the nurse and opened up about his concerns.

3pm: I chat to some more visitors and introduce people to the nurses. A man I told about a no smoking service last week drops in again to tell us how he’s doing. He was on 30 a day when I met him. Today he smoked five, and is really positive about giving up completely.

6pm: We shut up shop. It’s been so rewarding providing an environment where people feel comfortable talking about cancer. I know we’re making a difference.

‘Cancer doesn’t have to mean the end, it wasn’t for me. That’s why I’m supporting the pop-up shops. I want to encourage everyone to talk about cancer. If you think you may have a problem, it’s so important to get it checked out as soon as possible, and let the experts look after you.’

Dennis, 78, from Wandsworth, was diagnosed with bowel cancer in 2010
I'M SPENDING TODAY
CHAPTER 5:
THANK YOU

WITH MY TWO LITTLE MIRACLES

‘Without research our grandchildren might not be with us’.
Read Gillian’s story on page 39.
£351m
Our annual research activity – 2012/13*

£128m
Research that underpins all types of cancer

£41m
Breast

£32m
Includes cervical,...#

£27m
Bowel

£19m
Prostate

£18m
Leukaemia

£18m
Skin

£12m
Ovarian

£7m
Lung

£6m
Oesophageal

£6m
Brain

£6m
Bladder

£6m
Non-Hodgkin lymphoma

£6m
Pancreatic

£5m

* Includes £13 million for the transfer of our Cambridge Research Institute to the University of Cambridge.

# ...kidney, stomach, testicular and over 100 other cancers.
YOUR MONEY IS SAVING LIVES

Research is cancer’s ultimate enemy. With your support we continue to improve the way we prevent, detect and treat the disease.

We fund more than 4,000 world-class scientists, doctors and nurses across the UK. Their work deepens our understanding of cancer and highlights new ways to treat it.

In 2012/13, we spent £351 million on research in institutes, hospitals and universities across the UK. We also spent £17 million on providing information to people affected by cancer, raising awareness of cancer risks and symptoms, and influencing health policies.

We receive no Government funding for our research. Our life-saving work relies on the money you give us. Put simply, we’re powerless without our supporters. More than a third of what we do is made possible because people remember us in their wills. These legacies, along with monthly donations, help us to plan vital research into the future.

Every single pound raised really does count. Nine out of 10 of the donations we receive are for £10 or less, proving that small amounts make a big difference. Whatever the size of your donation, we will put your money to the best possible use in our fight against cancer.

Our fundraising income
Our supporters raised a staggering £460 million.

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legacies</td>
<td>£143m</td>
</tr>
<tr>
<td>Direct giving</td>
<td>£109m</td>
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<tr>
<td>Events</td>
<td>£75m</td>
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<tr>
<td>Shop income</td>
<td>£73m</td>
</tr>
<tr>
<td>Partnerships and volunteer fundraising</td>
<td>£40m</td>
</tr>
<tr>
<td>Major giving and appeals</td>
<td>£19m</td>
</tr>
<tr>
<td>Other income</td>
<td>£1m</td>
</tr>
</tbody>
</table>

For every £1 donated, over 80p was available to spend on beating cancer. The rest was used to raise funds for the future.
THANK YOU FOR MY MIRACLE GRANDCHILDREN

‘We’re like any other family when we get together – noisy,’ says Gillian Foreman from Cambridge. ‘Sometimes I stop and think about the past, all the worry we went through and how, without Cancer Research UK, our grandchildren might not be with us.’

‘When my son Neil was two, he was diagnosed with Wilms’ tumour, a type of kidney cancer. I remember it vividly. The chemotherapy made Neil lose all his baby curls. We thought he wouldn’t be able to have children when he was older because of the treatment. It was a tough time for all of us.

Then, on her 31st birthday, my daughter Anna was diagnosed with chronic myeloid leukaemia. We were all gutted, and it seemed to end Anna’s plans to have a child. She was put on a drug called Glivec, which kept her alive. I don’t think she’d be here today if she’d been diagnosed five years earlier when this drug wasn’t available.

Our first little miracle, Kian, Neil’s son, was born in 2007. He’s the spitting image of his dad. In 2011, Anna had gorgeous Ava, who’s two. We’re so proud of all of them.

Research saves lives
Our research helped improve treatments for Wilms’ tumour, reducing side effects and ensuring more children survive. Today more than eight out of 10 children survive this cancer compared to only six in 10 in the early 1970s.

Our scientists’ early lab work laid the foundations for the drug Glivec, an effective treatment against chronic myeloid leukaemia. Before Glivec, the only options for people with this type of cancer were debilitating hospital treatments such as stem cell transplants. Glivec can be taken once a day at home. Because the drug is targeted, the side effects are limited.

Then, on her 31st birthday, my daughter Anna was diagnosed with chronic myeloid leukaemia. We were all gutted, and it seemed to end Anna’s plans to have a child. She was put on a drug called Glivec, which kept her alive. I don’t think she’d be here today if she’d been diagnosed five years earlier when this drug wasn’t available.

Our first little miracle, Kian, Neil’s son, was born in 2007. He’s the spitting image of his dad. In 2011, Anna had gorgeous Ava, who’s two. We’re so proud of all of them.

We don’t want people to go through what we have, so Anna and I raise money through Race for Life – we want more cures. Just putting £1 in a collection tin helps.

Thank you to everyone who has helped keep my family together and for Kian and Ava, who wouldn’t be here today without research.’
Every step we make towards beating cancer relies on you. It’s been an incredible year...

35,000
By giving up alcohol for January
35,000 Dryathletes raised over £4 million.

600,000
More than 600,000 of you walked, ran, swam and cycled to raise vital funds.

40,000
Around 40,000 volunteers gave seven million hours of their time.

65,000
We helped over 65,000 visitors to our Roadshow make healthy lifestyle choices to reduce their risk of cancer.

1m
Over one million regular donors gave us a gift totalling more than £90 million, proving that small amounts add up.

10,000
Our specialist nurses answered over 10,000 queries about cancer.

£11.85m
Tesco staff, customers and suppliers raised a record-breaking £11.85 million.

35,000
Over 35,000 patients join our trials each year – helping us develop new treatments.

£8m
Millions of you united behind Stand Up To Cancer, raising £8 million to find cancer cures faster.

200
We’re fighting over 200 different types of cancer, including the one that matters most to you.

£32m
You’ve now pledged £32 million towards The Francis Crick Institute, where around 1,200 scientists will work to beat cancer and other major diseases.

10m
More than 10 million people visited our patient information website CancerHelp UK.
FOR YOU, BECAUSE OF YOU, THANKS TO YOU

We’re immensely grateful to everyone who has supported us over the past year. You make our life-saving work possible. Every pound raised 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.

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The Circle recognises those who have supported the charity in an extraordinarily generous way.

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Regular donations make a real difference. Please call 0800 917 1602

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Or call 08701 60 20 40

Share your story
Help us raise awareness, email mystory@cancer.org.uk
Or call us on 020 3469 8303

Get reliable information about cancer
For information about cancer, trials and research visit our CancerHelp UK website cru.k.org/cancer-help

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. Or email using the contact form on CancerHelp UK

Talk to others affected by cancer
Go to our online discussion forum cancerchat.org.uk

For more information
The best way to get to know about us and our work is through our website cru.k.org

Have a question or feedback?
Call 0300 123 1861 or send us a message through our website cru.k.org/contactus

We have committed to a series of social and environmental goals. You can find out more about these at aboutus.cancerresearchuk.org/sustainability

A great deal of cancer research is carried out without using animals, but in certain areas animal research remains essential if we are to understand, prevent and cure cancer. We only use animals when there is no alternative.

Cancer patients and their families are at the heart of everything we do. We believe that all our research is vital if we are to save the lives of more patients in the future.

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Scotland: SC041666
Isle of Man: 1103

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Isle of Man: 5713F

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