YOU MAKE OUR PROGRESS POSSIBLE

A YEAR OF ACHIEVEMENTS 2017/18
The percentage of adults who smoke has dropped from 26% to 17%.

SIR HARPAL KUMAR SHARES...

15 YEARS OF PROGRESS

TRANSLATING LABORATORY INSIGHTS INTO PATIENT BENEFIT

What we know about cancer has advanced almost beyond recognition. These advances have fuelled big national and international studies, giving them the best possible chance of improving the lives of patients.

RENEWED FOCUS ON HARD-TO-TREAT CANCERS

When we put lung cancer high on the agenda in our 2009 research strategy, people thought it was going to be too tough a challenge. But just look at research into lung and brain cancers now; there’s so much high-quality science going on.

THE WAY PEOPLE TALK ABOUT CANCER

I’m continually struck by the way we now talk about cancer, especially at Race for Life events. The notices on people’s backs used to be universally in memory of people who’d died. When you go to a Race for Life today, they’re just as likely to be celebrating someone who’s survived.

THE CRICK

We raised £100 million in just four years to fund the Francis Crick Institute. The state-of-the-art facilities and world-class scientific minds are already improving the lives of patients across the world.

OUR GROWTH IN SIZE AND INFLUENCE

We fund so much more research. And we’re as much a ‘convener’ as a funder now. We bring others together and we set the research agenda.

£423m

In 2003, we invested around £130 million a year in research. This year, we raised enough to spend more than £423 million on cancer research.

SIR HARPAL KUMAR SHARES...

ACTION AGAINST TOBACCO

Making tobacco less attractive to kids has to be one of the biggest gifts we can give the next generation.

THE IMPORTANCE OF SPOTTING CANCER EARLY

We really put early diagnosis on the map. Back in 2003, almost nobody was talking about it. Now it’s right at the top of the political agenda.

IMPROVING THE UK’S CANCER SERVICES

We’ve pushed hard to make sure that governments across the UK have robust plans to keep cancer services focused on what’s important – transforming people’s experience of cancer care, as well as their chance of survival.

RADIOTherapy

We have an incredible track record in radiotherapy research, but also, more recently, in pushing to modernise the UK’s radiotherapy infrastructure.

IMMUNOTHERapy

The arrival of a new generation of drugs that target a patient’s immune system, rather than their cancer, is one of the most important developments in my career. We’re now accelerating progress in this field.

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We’re determined to bring forward the day when all cancers are cured. Right now 2 in 4 people diagnosed with cancer survive. Our ambition is to see 3 in 4 people surviving cancer by 2034.

Thanks to you... we’re able to continue our life-saving work.

CONTENTS
1 Harpal’s introduction
2 Preventing cancer
4 Spotting cancer earlier
6 Developing new treatments
8 Improving existing treatments
10 Trialling new technologies
12 Funding research into all types of cancer
13 How you’ve helped us this year

Sir Harpal Kumar reflects on how our knowledge of cancer has evolved over the past 15 years, transforming our understanding and treatment of the disease. Turn over to see what we’ve achieved together.

“I feel proud to have led an organisation that’s saved millions of lives.”

It’s the end of an era at Cancer Research UK: our former Chief Executive, Sir Harpal Kumar, has stepped down.

“After 11 years as Chief Executive, and 15 years in total at the Charity, this is my final year with Cancer Research UK. It’s been an incredible experience, and I would like to thank everyone who’s supported us.

When I try to think of a moment that sums up just how much progress we’ve made over the years, I keep coming back to April 2014, and being able to make the announcement that, for the first time in history, as many people now survived cancer long-term as died from it. That’s an incredible thing to be able to announce, a phenomenal achievement. Will I ever get to make a more profound announcement in my life? I doubt it.

The Charity’s work is far from done – cancer is still a disease that places a terrible burden on our society – but I feel proud to have led an organisation that has saved millions of lives, and will save millions more, and to be leaving the Charity in prime shape to continue to progress towards our vision of beating cancer.”
WITH YOUR HELP
WE’RE PREVENTING CANCER

This year our research confirmed that 4 in 10 cases of cancer are preventable through things like not smoking, keeping a healthy weight, enjoying the sun safely and cutting back on alcohol.

We need to continue to prevent cancer and we need the Government to continue to act, particularly against the two most important preventable causes of cancer: smoking and obesity.

SMOKING

Last year saw both the full UK roll-out of plain, standardised tobacco packaging and the 10th anniversary of the UK going smokefree – two issues we campaigned strongly for.

Despite one of the largest drops in smoking rates in recent years, there’s much more to do: around 17% of the UK adult population still smoke.

While e-cigarettes are now the most popular method of quitting smoking, many people still believe they’re just as harmful. This year we published findings which helped put these fears to rest: a world first, and the most convincing evidence to date that e-cigarettes are much less harmful than smoking.

OBESITY

Obesity is the second biggest preventable cause of cancer in the UK. With overweight children being 5 times more likely to be overweight as adults, cutting childhood obesity could have a big impact on cancer rates in the future.

We’ve been increasing awareness of the link between cancer and obesity and campaigning for the UK Government to do more for a long time. But in the past year we’ve really stepped up our activities and the Government has listened. In an updated plan they laid out proposals to halve childhood obesity by 2030 – recommendations include banning junk food adverts before the 9pm watershed and restricting promotions for foods high in fat, salt or sugar in stores.

THE FUTURE OF CERVICAL CANCER PREVENTION

It’s a decade since girls were first offered the HPV vaccine. It’s been effective in protecting against the main types of HPV which cause most cervical cancers. But as these girls reach screening age, the NHS programmes will need to adapt.

This year, our researchers predicted that vaccinated women may only need to be screened 3 times in their lifetimes, rather than the 12 which is standard for all women today.

While we don’t yet know how the NHS programmes will adapt, these findings are great news for women. They also point towards potential benefits for the NHS, as resources could be saved through less screening.

BECAUSE OF YOU...

THE UK’S CERVICAL SCREENING PROGRAMME SAVES AT LEAST

2,000 LIVES FROM CANCER EVERY YEAR

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COULD ASPIRIN REDUCE CANCER RISK?

Aspirin’s anti-cancer properties have been known for more than a decade, but several questions remain before we’ll know if this cheap, widely available drug could be routinely used to help prevent the disease.

This year, through our Catalyst Award, we gave £5 million to an international team who will answer those final questions, taking us one step closer to a new way to prevent cancer.

FIND OUT MORE

Find out more about aspirin and cancer at cruk.org/aspirin.

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Steve Jones, 44, has been a Cancer Research UK Facilitator for the past 3 years as part of the Greater Manchester team. He says “I’m helping GPs to diagnose cancer sooner by identifying gaps in the detection process and making it less likely that patients will slip through the net. What I’m doing is having an impact on lives right now. Recently I met a woman undergoing treatment for cancer who had a speedier diagnosis as a result of my work. It’s incredibly motivating!”

We’re helping 2,000 health professionals a month spot cancer earlier.

WE’RE WORKING CLOSELY WITH GPs ON EARLY DIAGNOSIS

GPs play a vital role in detecting and diagnosing cancers early by recognising the signs and referring people for tests. To help GPs diagnose cancer early, when people have a better chance of surviving, we have a team of 88 Facilitators providing training and support to around 2,000 professionals every month. They provide practical, locally tailored support, ensuring that GPs and other healthcare professionals across the UK know about the latest tools, advice and guidelines available for preventing and spotting cancer early.

Steve Jones
Cancer Research UK Facilitator

5,000 extra staff announced by the NHS

We’re campaigning for more NHS staff

Our campaign, highlighting the shortage of diagnostic staff in the NHS in England, led to 6,000 people writing to the Health Secretary. As a result, Health Education England has set out plans for an extra 5,000 staff over the next 2 to 3 years. Over the next few months we’ll also be raising staff shortages with the Welsh and Scottish Governments.

Developing the Cytosponge

My team at the Cancer Research UK Cambridge Institute are seeking out better ways to identify cases of Barrett’s oesophagus that may lead to oesophageal cancer. Right now, we’re undertaking large-scale tests of a device called a Cytosponge – a new diagnostic test developed by our lab.

It’s simply a sponge which is covered in gelatine and attached to a string. The sponge is swallowed and pulled up and out of your mouth, collecting cells from the lining of your oesophagus, to be studied in the laboratory. The Cytosponge is far less invasive than current diagnostic tests and our results so far have shown that it’s an effective tool for diagnosing Barrett’s oesophagus. We’re currently trialling the Cytosponge in GP surgeries across the country, in the hope that it could become standard practice in the NHS within the next few years.”

Professor Rebecca Fitzgerald, Cancer Research UK scientist

Meet Amanda...

Amanda, 45, was diagnosed with bowel cancer in 2012. She lives in Essex with her husband Ahmet and their two children, Aaliyah, 15, and Summer, 12.

It all started when I began experiencing strange symptoms in 2011. I’d felt unwell – with stomach pain, fatigue and weight loss. I had an inkling something wasn’t right, so I made an appointment with my GP. My GP took time to listen to and understand my symptoms. I was then referred for further tests which identified that I had a cancerous tumour in my large colon. When I found out, I felt like I’d been hit with a sledgehammer and my instant response was “how do I tell my children?” I had surgery to remove the right side of my colon, followed by three months of chemotherapy.

Six years on, there’s no evidence of the disease. Now, I live for the moment.

I can’t stress how important it is to spot cancer early. If I had left it any longer to act, I wouldn’t be here now. Early diagnosis really does save lives.”

My advice for others is to listen to your body and if you feel that something’s not quite right, speak to a medical professional. Of course, it’s scary but it’s better to act than to worry about the unknown. The good news is that cancer is no longer the death sentence it once was. I’m now six years post cancer so I’m testament that life really can go on.”

Amanda, 45, was diagnosed with bowel cancer in 2012. She lives in Essex with her husband Ahmet and their two children, Aaliyah, 15, and Summer, 12.

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£98m spent on research into four hard-to-treat cancers: brain, lung, pancreatic and oesophageal.

£104m on research into understanding cancer biology.

To achieve our goal of 3 in 4 people surviving cancer by 2034, we need to develop new, more effective treatments.

IMMUNOTHERAPY – THE NEXT GENERATION

Drugs that target the immune system, known as immunotherapies, are transforming the way certain forms of cancer are treated. But they’re not effective for all patients.

That’s why we’ve launched a new funding scheme worth £7.5 million, to encourage the UK’s thriving community of immunologists to focus sharply on improving cancer immunotherapy.

BRAIN TUMOUR FUNDING BOOST

We’ve announced an extra £25 million investment into brain tumour research over the next five years, matched by £20 million from the Government. That’s on top of the £13 million a year we already spend.

This year we launched two Brain Tumour Centres of Excellence in the UK.

MEET JASPER…

Jasper Lilley, 6, finished treatment for a type of brain tumour called medulloblastoma in October 2017, and is now doing well. But his treatment caused him serious side effects. His parents, Alice and Darren, share his story.

Jasper was diagnosed when he was just 5 years old after experiencing really terrible headaches that would literally stop him in his tracks. A CT scan confirmed that he had a tumour and we were told he would need surgery, radiotherapy and chemotherapy.

When he started to have radiotherapy, it was every day from Monday to Friday. It made him so sick and unwell sometimes. And we were heartbroken about his hair falling out. He’s always had loads of hair so he hated the idea of losing it.

He then had to have eight cycles of chemotherapy which was horrendous. After the first round he completely stopped eating and drinking. He was so poorly.

Thankfully, after that difficult year, he’s finished treatment now and things don’t really stop him too much. Even throughout the treatment, he was still funny, still himself. Now he’s back to doing classes and his swimming lessons – Jasper really missed swimming throughout his treatment so he was desperate to get back in the water!”

We want to develop new, better and kinder treatments for children’s brain tumours that help more children survive.

This year we opened the Cancer Research UK Children’s Brain Tumour Centre of Excellence, to bring together world-leading experts to discover and develop new treatments to tackle brain tumours in children.

YOUR GENEROSITY MEANS WE’RE DEVELOPING NEW TREATMENTS

To achieve our goal of 3 in 4 people surviving cancer by 2034, we need to develop new, more effective treatments.

The drug is an immunotherapy – it targets a patient’s immune system, rather than the cancer. Jolene now gets this treatment every three weeks.

Jolene says “There’s a lot of hospital, and a lot of waiting around, when you want to be getting on with your life. But before I started taking it, I was told I had 18 months to live, it was quite black and white.

Now I feel like I’ve been given a lifeline – I’ve been on it for two years, and without it I literally wouldn’t be here.”

Cancer Research UK-funded scientist Dr Alison Taylor is working to find out if they could eventually create a pill-based replacement for pembrolizumab. There’s a long road ahead but she’s aiming to get these experimental drugs into patient trials.

Jolene says “It’d be such a positive thing, being able to take it as a tablet, at home. It is so difficult having that never-ending cycle of hospital visits.”

Dr Alison Taylor says “The funding scheme was ideal, as it allowed us to move into completely new territory. We were just doing lab research on viruses, and now we’ve got the possibility of making better cancer treatments.

Thank you to everyone who supports Cancer Research UK. Without you this wouldn’t be possible. You’re funding something so worthwhile.”

Find out more at cruk.org/our-research.

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IT'S THANKS TO YOU THAT WE'RE IMPROVING TREATMENTS

Improving existing cancer treatments to make them more effective and reduce harsh side effects is just as important as developing new therapies.

Radiotherapy is the unsung hero in the fight against cancer, curing more patients than cancer drugs do. The UK is a world leader in research into new radiotherapy techniques and we’ve been at the heart of this progress.

WE'RE MAKING BREAST CANCER RADIOTHERAPY KINDER

Women with early, localised breast cancer are offered whole-breast radiotherapy after surgery, to make extra sure their cancer won’t come back. But this can cause both short and long-term side effects.

Marie de Marwicz, 66, had breast radiotherapy and struggled with the side effects.

"As the weeks wore on I became more fatigued and I had to regularly apply lotion to stop my skin peeling."

Our IMPORT-LOW trial tested a smaller volume radiotherapy area, targeting just the part of the breast near the original tumour, rather than the whole breast. The results showed it was just as good at preventing the cancer returning, but with fewer side effects.

Prostate cancer is the second most common cause of male deaths in the UK. Every day we’re working to improve treatments.

TACKLING PROSTATE CANCER

Our flagship STAMPEDE prostate cancer trial has produced results that have changed the way the disease is treated.

This year it made its most important finding yet: a drug called abiraterone. Given earlier, alongside hormone therapy, abiraterone can make a big difference in survival for men with prostate cancer that’s spread, improving survival by around 40%.

STAMPEDE trial leader Professor Nick James, says:

"Finding results like these is such an amazing feeling. It’s one of the biggest improvements in overall survival I’ve seen in any clinical trial for adult cancers."

John Hudson, 76, was diagnosed with prostate cancer and benefited from our STAMPEDE trial finding that hormone therapy given with a chemo drug called docetaxel improves survival.

"I’d been having some worrying symptoms. I was driving home from Manchester one night and I kept having to stop every 5 minutes, but when I got to the toilet, nothing came out. My GP referred me to the urologist and a few weeks later the diagnosis of prostate cancer was confirmed. It seemed unreal at first – it was a very hard time. When I started treatment, the team looking after me decided to put me on what they considered the ‘gold standard’ of treatment – hormone therapy together with docetaxel. I found the side effects, such as hair loss, having a swollen face and a low sex drive, very hard to deal with. But now I’m feeling as healthy and strong as I’ve ever done. I love being active and I’m still able to do everything I want to. The results of the STAMPEDE trial enabled me to get first-class treatment. I’m eternally grateful to everyone who’s taken part in clinical trials in the past, as they’re helping patients like me right now."

WE DISCOVERED A DRUG THAT IMPROVES PROSTATE CANCER SURVIVAL BY AROUND 40%
Right now, Cancer Research UK is co-funding my work to test its effectiveness at reducing the need for second surgeries, which are currently required for 1 in 5 patients who have surgery for early-stage breast cancer.

The impact of reoperation is not to be underestimated. It means a longer recovery time, extra days off work, anxiety. All this disruption is down to a lack of technology informing us about what tissues we are cutting. But it could all change thanks to the iKnife."

Daniel Leff, Breast cancer surgeon

**IMPROVING CANCERSURGERY WITH THE iKNIFE**

The iKnife is an exciting new surgical scalpel that can ‘sniff’ the tissue it’s cutting and, in real time, analyse whether it’s cancer or not from the chemical composition of the surgical smoke. It may help surgeons make sure every cancer cell is removed during surgery.

When I first heard about the iKnife from Professor Zoltan Takats, the inventor, I thought it was a genius invention.

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**HOW THE iKNIFE WORKS**

1. Electricity heats the tip of the iKnife.
2. The hot blade causes cells in the tissue to explode, releasing molecules in the smoke.
3. The smoke is sucked up into a tube.
4. ...and fed into a very accurate molecular weighing scale (mass spectrometer).
5. The mass spectrometer analyses the molecules and creates a ‘fingerprint’.
6. The fingerprint tells scientists the type of tissue being cut.

**USING ARTIFICIAL INTELLIGENCE TO HELP GPs SPOT CANCER EARLIER**

The GP’s surgery is often the first opportunity for healthcare professionals to spot the early signs of cancer, but many of the first symptoms are common across other conditions. Our Cancer Research UK funded team at Imperial College London would like to prompt GPs to think ‘cancer’ when a patient’s symptoms might indicate early signs of the disease.

Our prototype ‘diagnostic support system’ uses machine-learning technology to analyse thousands of electronic medical records and suggest a list of possible diagnoses based on the patient’s symptoms. At the same time, patients will also be consulted and their input fed into improving the system.

So far this approach has shown incredible promise in correctly predicting which patients might have cancer, so the next steps are to optimise and refine the system and take it a step closer to being rolled out in GP surgeries across the country."

Professor Brendan Delaney, Cancer Research UK scientist at Imperial College London

**INTRODUCING THE CANCER BREATH TEST**

Early detection is so important to give patients the best chance of successful treatment. At Owlstone Medical, we’re developing a device that works like a breathalyser – you exhale into it and it detects molecules in your breath. In this case, we’re trying to detect particular molecules given off by a growing tumour, which evaporate from your blood into the lungs.

The thing that’s potentially exciting is that, the more you breathe out, the stronger the signal gets. You can’t do that with a blood test, so it could allow us to detect really early cancers.

We’re now working with Cancer Research UK researchers in Cambridge to test whether this spots differences between people with and without cancer, the first step on the road to routine use. It’s fantastic to have access to the Charity’s expertise – none of this would be happening without Cancer Research UK."

Billy Boyle, Engineer and co-founder of Owlstone Medical

**YOU’VE HELPED US TO TRIAL NEW TECHNOLOGIES**

Spotting cancer earlier and improving treatments is going to mean new devices, new technology and new ways of thinking.

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THANKS TO YOUR SUPPORT
WE’RE FUNDING RESEARCH INTO ALL TYPES OF CANCER

We’re the only charity fighting over 200 cancer types and we receive no government funding for our life-saving research.

This year we put £423 million towards research: £308 million on specific cancer types (see below), £104 million on research into the biology of cancer and £11 million was set aside for long-term projects.

For every £1 donated, 80p is used to beat cancer. The rest is used to raise funds for the future.

HERE’S HOW YOU’VE HELPED US THIS YEAR

12,000 patients
The 12,000 patients who took part in one of our clinical trials this year are helping us to develop better treatments.

£182m gifted
The incredible total gifted to us as a result of supporters leaving donations in their Will.

£84m spent
People purchased goods from one of our shops, helping raise £84 million.

217 campaigners
The number of campaign ambassadors who campaigned for us this year, saving lives by persuading politicians to support better cancer policies.

£107m donated
People who gave us a regular gift raised £107 million with an average monthly donation of £6.19.

500,000 participants
Nearly half a million people took part in events including Race for Life, Shine Night Walk and Winter Run.

40,000 volunteers
We rely on over 40,000 volunteers to donate millions of hours of time.

11,000 enquiries
Our nurses responded to over 11,000 enquiries by phone, email and through the “Ask the Nurse” section of our online forum Cancer Chat, helping people with information and support.

GOT CANCER QUESTIONS?

Speak to one of our friendly cancer nurses in confidence by calling 0808 800 4040 from Monday to Friday 9am to 5pm. Or find information about cancer, research and coping at cruk.org/about-cancer.

WE’VE UPDATED OUR PRIVACY POLICY

We’re committed to protecting your personal information and have updated our Privacy Policy to reflect changes in data protection law. Find out how and why we use your information at cruk.org/privacy-policy.

SHARE YOUR THOUGHTS

We want to keep improving the way we communicate with supporters. To tell us what you thought of this booklet please visit cruk.org/our-year-survey.

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People purchased goods from one of our shops, helping raise £84 million.

217 campaigners
The number of campaign ambassadors who campaigned for us this year, saving lives by persuading politicians to support better cancer policies.

£107m donated
People who gave us a regular gift raised £107 million with an average monthly donation of £6.19.

500,000 participants
Nearly half a million people took part in events including Race for Life, Shine Night Walk and Winter Run.

40,000 volunteers
We rely on over 40,000 volunteers to donate millions of hours of time.

11,000 enquiries
Our nurses responded to over 11,000 enquiries by phone, email and through the “Ask the Nurse” section of our online forum Cancer Chat, helping people with information and support.

GOT CANCER QUESTIONS?

Speak to one of our friendly cancer nurses in confidence by calling 0808 800 4040 from Monday to Friday 9am to 5pm. Or find information about cancer, research and coping at cruk.org/about-cancer.

WE’VE UPDATED OUR PRIVACY POLICY

We’re committed to protecting your personal information and have updated our Privacy Policy to reflect changes in data protection law. Find out how and why we use your information at cruk.org/privacy-policy.

SHARE YOUR THOUGHTS

We want to keep improving the way we communicate with supporters. To tell us what you thought of this booklet please visit cruk.org/our-year-survey.
BECAUSE OF YOUR SUPPORT...

IN THE 1970s
1 IN 4 SURVIVE

TODAY
2 IN 4 SURVIVE

BY 2034
3 IN 4 SURVIVE

TOGETHER WE WILL BEAT CANCER