Cancer Research UK’s strategy 2009–2014

Cancer Research UK’s aim is to reduce the number of deaths from cancer. Our future plans are ambitious, but they are in line with the challenge and the responsibility we face.
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Huge progress has been made in beating cancer over the last five years. Cancer Research UK has funded a substantial programme of activities covering research, information and influencing public policy. Together with our partners, we have had a significant impact which has helped to reduce the number of cancer deaths.

This progress has created an unprecedented level of optimism, momentum and opportunity within Cancer Research UK and for all those involved in tackling this devastating disease.

It is therefore a good time to think carefully about our priorities. Cancer Research UK must continue to evolve, both in the way we work and in response to the changing roles played by our partners in government, industry and the charity sector.

The Charity’s Executive Board and Trustees have defined a compelling vision, ambitious goals and clear purpose statements for Cancer Research UK that have shaped the strategy we present here.

Our strategy for the next five years is directed at reducing cancer mortality further. It will guide our decision-making, our investment and funding plans and our annual operations. It will provide our people, the public, our partners and the scientific community with a description of the impact we wish to have and how we will go about achieving it. We hope it will inspire our supporters to continue to fund our vision to beat cancer.

As the population ages and more people are diagnosed with cancer, it is imperative that we accelerate our progress in tackling this terrible disease. Our future aims are ambitious, but they are in line with the challenge and the responsibility we face.

I believe this new strategy will help us come closer to our vision of beating cancer.

Harpal S Kumar
Chief Executive Officer
Cancer Research UK’s aim is to reduce the number of deaths from cancer. Around 300,000 people are diagnosed with cancer in the UK every year. Every two minutes someone is told they have the disease. And every year more than 150,000 people die from the disease. Cancer remains people's greatest health fear. It is difficult to overstate the scale of the cancer problem and the impact it has on the lives of hundreds of thousands of people every year.

We have made huge steps forward in improving survival and in preventing thousands of new cases of the disease, both in the UK and across the world. Cancer Research UK has been at the heart of this progress thanks to the sustained support and generosity of the UK public.

The average ten-year survival rate for the disease has doubled over the past 30 years. Half the people diagnosed with cancer today will still be alive in five years’ time. And more than 40% will still be alive in ten years’ time. There are now more than two million people alive in the UK who are living with or have previously had cancer.

The outlook for cancer has never been more promising. This optimism is fuelled by the ever-increasing knowledge and understanding of the disease that research provides and in which Cancer Research UK is leading, both in this country and internationally.

There is clearly much more we need to do. Cancer is still responsible for one in four of all deaths in the UK, and our progress has been faster against some cancer types than others. Over 80% of people with testicular cancer, melanoma or Hodgkin’s disease can expect to live for at least ten years. But less than 5% of those suffering from pancreatic or lung cancer will survive for this long.

People from more deprived backgrounds often fare less well than the more affluent. And deprivation is also associated with higher incidence rates of several cancers, particularly those linked with tobacco, alcohol and obesity.
Cancer Research UK has created ten ambitious goals which, together with our partners, we aim to achieve by the year 2020. This document sets out our role in achieving these goals and describes the direction of our work from 2009–2014.

We plan to spend around £300 million a year during this period to beat cancer. We will fund world-class research to gain a better understanding of the disease, improve prevention and screening, diagnose cancer earlier and develop better treatments. Through this work we will improve cancer outcomes and enhance the accessibility of information. We will also continue to use our influence with the Government to help us achieve our goals.

Although this is a five year strategy, our goals represent longer-term ambitions. So, as part of this plan, we will make investments that will help us not only over the next five years, but also into the future.

We believe that we can make the greatest impact in our fight against cancer by working with a wide range of partners. We need to focus our own efforts intensely in areas that will help us realise our goals. This document describes how we plan to achieve this.
Cancer Research UK has made a huge number of very important discoveries which have fundamentally changed the way we prevent, diagnose and treat cancer.

The ten year survival rate for cancer is now 42%, double the figure of 30 years ago. Five year survival has increased to 50%. Survival rates have improved for almost all of the common cancers and in many cancers the progress has been dramatic. Testicular cancer; melanoma and Hodgkin’s disease now all have ten year survival rates of over 80%. Breast cancer now has over 70% ten year survival rate, up from 46% in the 1970s. Our work has been at the heart of this progress and has saved the lives of hundreds of thousands of people in the UK and many millions more around the world.

Understanding cancer
We have made many significant breakthroughs in understanding how cancer starts and develops and helped characterise many aspects of the disease. We have led groundbreaking work on understanding the cell cycle, how DNA damage leads to cancer; mechanisms of cellular DNA repair; immune system and inflammatory responses to cancer; invasion and metastasis and genetic pre-disposition to cancer. Scientists at Cancer Research UK and across the world are building on these discoveries to develop new treatment approaches.

• We have discovered crucial genes that protect us against cancer – the tumour suppressor genes. We co-discovered the p53 tumour suppressor protein which normally plays a central role in preventing cancer and is altered or inactivated in the vast majority of cases of the disease.

• We were the first to discover the breast cancer susceptibility gene BRCA2 and show that it is also associated with increased risks of prostate and ovarian cancer. Our research on the links with BRCA paved the way for the development of the genetic tests available today and potential new advances in treatment.

• We have led the world in identifying common genetic variants that increase the risk of breast, bowel, prostate and lung cancer. These genome-wide studies identify people who are at increased inherited risk of developing the disease through combined effects of multiple common gene variants, known as polymorphisms.

• Our scientists were the first to discover a virus which causes cancer in humans in 1963 when they observed “virus-like particles” in the tumour cells of a child with Burkitt’s lymphoma. The Epstein-Barr virus (EBV) also causes cancer of the nasal cavity, some Hodgkin’s lymphomas and lymphomas in people who are immunosuppressed, for example transplant patients. Our scientists have played a leading role in EBV research, pioneering work on therapeutic vaccines and developing successful immunotherapy for EBV lymphoma in transplant patients.
Causes and prevention

Our researchers have been at the forefront of finding ways to prevent the disease. We have shown that up to 50% of cancers could be prevented by changes in lifestyle and have conducted world-leading research on these factors, as well as medical interventions such as tamoxifen chemoprevention. Our work has underpinned fundamental changes in Government health policy and the development of national and international prevention programmes.

- We have supported influential long-term studies into the hazards of smoking tobacco and the benefits of giving up. Our research has shown that half of all regular smokers will eventually die of their habit. This body of evidence has played a leading role in the reduction in smoking rates from over 80% of men in 1950 to 23% today. The UK has experienced the most rapid decrease in the world in premature death from tobacco over the past few years.

- Cancer Research UK is part of the European Prospective Investigation into Cancer (EPIC), the largest-ever study of the links between diet and health. Important discoveries, such as the link between excessive red meat consumption and cancer, continue to flow from this work and will inform cancer prevention strategies that will save lives in the future.

- We discovered that current or recent use of HRT increases a woman’s risk of breast cancer. Use of HRT by UK women aged 50-64 in the past decade has led to about 20,000 extra breast cancer cases. These risks are informing HRT prescribing practice worldwide.

- We launched the International Breast Cancer Intervention Study (IBIS I) which showed that tamoxifen reduces breast cancer rates by around a third in women who are otherwise at increased risk of the disease. We are now supporting the IBIS II trial to test the effectiveness of anastrozole, a newer drug that may have fewer side effects than tamoxifen.

Screening

We have contributed to the development of all three national screening programmes for breast, bowel and cervical cancer, which have saved tens of thousands of lives.

- In the 1960s we first tested mammography as a way of diagnosing early breast cancer. More recently, we found that two X-rays were better than one, detecting more cancers and reducing recall rates. Two-view mammography is now used by all the national screening centres.

- In the 1950s we undertook some of the earliest studies of cervical screening. Since then our work has helped to improve the UK’s cervical cancer screening programme. The death rate from cervical cancer for women aged 55–64 dropped by nearly 80% in the second half of the twentieth century, largely due to the screening programme. More recently, our scientists pioneered a new screening technique that could be used alongside cervical smears.

Relative survival

This graph shows the increase in ten year relative survival rates from the 1970s to the present for the most common cancers.
Treating cancer

Hundreds of thousands of people have beaten the disease thanks to new treatments developed by Cancer Research UK. Our scientists have contributed to the discovery or early clinical development of 5-10% of all major cancer treatments currently in clinical use around the world and we have taken over 100 novel drugs into clinical trials since 1982. We now lead the world in terms of the proportion of patients entering clinical trials to test new treatments, many of which have been practice-changing and have led to substantial improvements in survival.

Breast cancer

- Modern treatment of breast cancer has been revolutionised by the work of Cancer Research UK, contributing to the 70% ten year survival rate. We demonstrated the benefit of using tamoxifen to prevent recurrence after surgery and defined the role of newer treatments such as the aromatase inhibitors which have more potent effects on tumour cells. Our scientists showed that giving the drug tamoxifen to all breast cancer patients who needed it, whatever their age, could save an extra 20,000 lives each year worldwide. Our trials have shown that anthracyline drugs improve the results of adjuvant chemotherapy and that taxane drugs further improve the results. Through our clinical trials units, we helped to show that Herceptin can save additional lives among patients whose breast cancer has extra copies of the Her-2 gene. We have shown that radiotherapy to the breast can reduce the chances of regrowth of the tumour after the primary is removed, and that giving fewer but stronger radiation doses is just as effective. Looking forward, we are working on more targeted drug and radiotherapy treatments.

Lung cancer

- We continue to advance and perfect radiation techniques. We have developed a new approach to radiotherapy, CHART, which improves survival in patients with the most common type of lung cancer.

Bowel cancer

- In bowel cancer, our trials have shown that giving chemotherapy can increase the chances of cure for patients with disease that has spread to the liver, but which may be removed at surgery. We have also shown that chemotherapy can increase survival rates for patients having radiotherapy for cancer of the anus, and have defined the best drug treatment for the many older patients.

Prostate cancer

- In prostate cancer, our research has shown that higher doses of radiotherapy can be given safely to tumours using computerised targeting, and we are conducting several trials to compare different approaches such as radical surgery, radiotherapy or other types of treatment for primary tumours.

Cisplatin and carboplatin

- Cancer Research UK helped demonstrate the strong anticancer activity of cisplatin, and we discovered and developed carboplatin. Cisplatin and carboplatin have been two of the most successful anti-cancer agents ever developed, and are currently used to treat ovarian, lung and testicular cancers. Testicular cancer now has a 98% cure rate.
Clinical trials
Cancer Research UK has played an increasingly important role in funding and organising all types of clinical cancer trials. Our 250 treatment trials since 1995 have involved more than 100,000 patients. We have rapidly increased our work in this field, with the number of new trials started rising from seven in 2000 to 49 in 2007, reflecting the gathering pace of scientific discovery and its application in the clinic. More widely, by March 2009, we expect there to be more than 50 new drugs in clinical development worldwide where the initial discovery or the first Phase I trial was carried out by Cancer Research UK. Of these, between six and nine will be in Phase III development, including a number of potential treatments for lung cancer.

Lymphoma
• In lymphoma, our trials have helped to determine the best treatment for Hodgkin’s disease, combining high cure rates of 70-80% with as few side effects as possible. We have carried out the largest trials in the world on Burkitt lymphoma, using molecular diagnosis to target patients and showing cure rates of 60-70% can be achieved with intensive chemotherapy.

Brain cancer
• Our researchers first discovered temozolomide and demonstrated its effectiveness in clinical trials. Since then temozolomide plus radiotherapy has become the international standard of care for the brain cancer glioblastoma, leading to a pronounced increase in survival.

Children’s cancers
• We have been the main funder of clinical trials co-ordinated by the Children’s Cancer and Leukaemia Group, which have significantly boosted the cure rates for many childhood cancers. Three-quarters of children and adolescents with cancer are now successfully treated.

Pancreatic cancer
• In pancreatic cancer we have shown that chemotherapy after an operation can raise the chance of a cure for some, and further, that using the newer drug gemcitabine can improve the results for patients with tumours that are too advanced for surgery.

Informing and influencing
We communicate our messages to the widest possible audience and work hard to influence public policy.

• We were a key player in the effort to secure a ban on tobacco advertising. We successfully lobbied the Government to introduce smokefree legislation throughout the UK, protecting workers from second-hand smoke and precipitating a sharp fall in smoking rates.

• We give information on cancer and on clinical trials to around one million people every month through our award winning website.

For more information on our impact and achievements, please see www.cancerresearchuk.org/achievements
Our vision is to beat cancer. Our purpose outlines what we will do to fulfil that ambition. Our goals specify how much we want to achieve by 2020. Together, they frame our five year strategy.

Our vision
Together we will beat cancer

Our purpose
• We carry out world-class research to improve our understanding of cancer and find out how to prevent, diagnose and treat different kinds of cancer

• We ensure that our findings are used to improve the lives of all cancer patients

• We help people to understand cancer, the progress we are making and the choices each person can make

• We work in partnership with others to achieve the greatest impact in the global fight against cancer
Our goals
In early 2007 Cancer Research UK created ten goals that, together with our partners, we aim to accomplish by the year 2020:

- **People will know how to reduce their risk of cancer**
  Three-quarters of the UK public will be aware of the main lifestyle choices they can make to reduce their risk of getting cancer

- **The number of smokers will fall dramatically**
  Four million fewer adults will be smokers, preventing thousands of new cases of cancer every year

- **People under 75 will be less likely to get cancer**
  The chances of a person developing cancer up to the age of 75 will fall from more than one in four to one in five

- **Cancer will be diagnosed earlier**
  Two-thirds of all cancer cases will be diagnosed at a stage when the cancer can be successfully treated

- **We will understand how cancer starts and develops**
  We will have a detailed understanding of the causes and changes in the body in two-thirds of all cases of cancer

- **There will be better treatments with fewer side effects**
  Treatments that accurately target the cancer and have few serious side effects will be available for at least half of all patients

- **More people will survive cancer**
  Survival rates for all common cancers will increase, with more than two-thirds of newly diagnosed patients living for at least five years

- **We will especially tackle cancer in low income communities**
  The differences in the risk of dying from cancer between the most affluent and the least affluent will be reduced by half

- **People with cancer will get the information they need**
  At least nine out of ten patients will be able to access the information they need at the time of diagnosis and during treatment

- **We will continue to fight cancer beyond 2020**
  Sufficient scientists, doctors, nurses and infrastructure will be in place to ensure continued rapid progress in the fight against cancer beyond 2020
Our core strategies

Our programme for the next five years is ambitious but is in line with the challenge we have set through our goals. We have reviewed the whole spectrum of our work, the impact we have had on cancer and other partner organisations’ roles in beating cancer. Going forward, our strategy is to focus our work on the areas which will have the greatest impact on reducing cancer mortality.
We have broken down our core work into three broad areas – research, information and influencing public policy. Research remains our primary focus, complemented with public-facing information and influencing public policy. Within each of these areas a portfolio of work will be targeted at the basic understanding of cancer, primary prevention, risk stratification, symptom awareness, diagnosis and screening, treatment strategies and treatment management. All of these are aimed at reducing cancer incidence and increasing cancer survival.

Our strategy to reduce cancer mortality means there are other very important areas of cancer in which we will not be able to operate. We will not be involved in the later stages of the cancer journey of survivorship and end of life care. Nor will we change our approach to offer routine service delivery or patient support, critical areas which other organisations are better placed to deliver.

We believe that we can have the greatest impact in the fight against cancer by working with a wide range of partners, including the NHS, Departments of Health, the National Cancer Research Institute (NCRI), universities, academia, industry, other charities and the international research community. Articulating our strategy through this document will help us to build stronger partnerships, as others are clearer about our role and our approach.
We live in an unprecedented time for cancer research. The sequencing of the human genome and other major advances in our understanding of biology at a molecular level has led to a transformation in the science and medicine relating to cancer.

Technological breakthroughs have played a key role and continue to accelerate the pace at which discoveries can be made. We are now in an era where the large investments made in basic biology over the last several decades have led to an array of discoveries that can be translated into clinical practice to benefit the public. As a result, the way cancer is managed is increasingly tailored to the individual.

Over the next five years, we believe that we can make the greatest impact on cancer by ensuring that research discoveries are translated into advances in prevention, detection and treatment for cancer. Our strategy will lead us into important new areas such as early detection, while building on our current strengths in epidemiology, basic science, drug discovery and clinical research. We also aim to address key areas of unmet medical and research needs.

By developing an overarching research strategy for our five Institutes, together with more strategic and coordinated research funding in universities and hospitals through our Cancer Research UK Centres, we will be in a position to take on tougher scientific challenges and to develop world-class cancer researchers for the future.

Our research strategy has three themes: focusing our research on scientific quality and clinical impact, creating the right environment for research and providing the right people for research.
Focusing our research – scientific quality and clinical impact

One of Cancer Research UK’s great strengths is in understanding cancer biology. But we also need to take the lead in areas that are less well explored. We will enhance our programmes in early detection, screening and prevention as few other research organisations, at least in the UK, are playing a substantial role in this area.

The UK already has considerable strengths in the area of basic science. We have a responsibility to ensure that the highest quality basic research in this country continues to provide the foundation for advances in the prevention, detection and treatment of cancer.

Surgery, radiotherapy and chemotherapy continue to be the most important approaches to treatment. The discovery and development of cancer drugs is a traditional strength for Cancer Research UK, which we will develop further. In contrast, research into radiotherapy and surgery has declined significantly in the UK in recent years. Over the next five years we will take steps to correct this. We will also invest more in areas with the highest levels of medical need, such as lung, oesophageal and pancreatic cancers, high incidence cancer types where patients have the poorest outcomes.

Cancer Research UK has been the leading funder of large-scale clinical trials over the last five years, working closely with the NHS to drive the UK to a world-leading position in the scope of and accrual to cancer clinical trials.

During the years 2009-2014, our strategy is to:

- **Enhance research programmes in early diagnosis, screening and prevention**
  - Continue to fund research into behavioural change relating to tobacco control and sun awareness
  - Increase our investment in symptom awareness and early diagnosis and lead the NCRI initiative in this area
  - Develop our activity in medical cancer prevention
  - Work in partnership with others through the National Prevention Research Initiative and UK Clinical Research Collaboration to develop and test effective ways of bringing about behavioural changes which may reduce the risk of cancer

- **Maintain and, where possible, strengthen a broad and balanced portfolio of world-class research in the UK, directed at understanding the biology and causes of cancer**
  - Maintain a strong portfolio of basic biology research as an essential part of Cancer Research UK’s remit and demonstrate the impact of this research by showing how it ultimately links to clinical practice
  - Continue to raise the quality of our basic research in our Institute and grant-funded research
  - Invest further and increase capacity in imaging research and in more sophisticated in silico and mouse models of disease
**Promote clinical and translational research which will maximise cancer survival**
- Continue to grow and reshape our drug-discovery and drug-development operations, maximising the opportunities for clinical uptake
- Revitalise radiobiology and radiotherapy research by supporting the new Institute in Oxford and strengthening activity in other places
- Reinvigorate surgical research through establishing a clear focus for this area in a few Cancer Research UK Centres
- Maintain a best-in-class technology transfer and commercialisation arm to ensure that patients benefit from publicly-funded cancer research
- Continue our investment in the highest quality clinical trials from first-in-man new drug studies to large randomised studies, including more sophisticated treatment combinations
- Through pre-clinical and clinical studies, develop biomarkers and practice-changing strategies for tailoring of treatment to the individual patient

**Promote research in areas with the highest levels of unmet medical need**
- Foster research in pancreatic cancer through our Cancer Research UK Centres initiative
- Fund at least one major new initiative in oesophageal cancer, preferably in partnership with others
- Consult the research community to develop strategic recommendations for further increasing our investment in lung cancer research

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**Creating the right environment for research**
We support more than 4,500 scientists, doctors and nurses throughout the UK. We fund research carried out in our own Institutes, as well as awarding grants to researchers based in universities and hospitals. We are also establishing up to 20 world-leading Cancer Research UK Centres across the country.

The Centres will bring proximity and relevance to patients by systematically linking our research activities with patient care and public engagement. This in turn will help to improve cancer outcomes, engage the broader public and increase the knowledge flow from laboratories to patients and vice versa. Each Centre will work with Cancer Research UK to develop its research strategy and all Centres will be encouraged to develop key areas of focus (e.g. tumour types, treatment modalities, research areas) in which they can be world-class. Each Centre will also provide a ‘shop-window’ for clinical research careers.

Our five Institutes in Cambridge, Glasgow, London, Manchester and Oxford play a key role by enabling us to tackle important problems through highly competitive, innovative and inter-disciplinary research. They provide a high-quality training ground for the scientists of the future and enable us to attract the very best scientists from around the world.
Our Cambridge Research Institute (CRI) and the Gray Institute for Radiation Oncology & Biology in Oxford are now up and running and already delivering significant outputs. We have also decided to relocate our London Research Institute (LRI) together with the MRC’s National Institute of Medical Research and research groups from University College London (UCL) and the Wellcome Trust into the UK Centre for Medical Research and Innovation (UK-CMRI) at St Pancras in central London.

The UK-CMRI provides a once-in-a-generation opportunity to advance the UK’s position as a world leader in scientific research and innovation. Detailed design of the new building has now begun and we expect to be able to move in by 2014.

The aim is for the UK-CMRI to be among the very best of the world’s biomedical research centres. It will carry out the highest quality multi-disciplinary research that will lead to a better understanding of life for the benefit of human health. It will provide training for the next generation of biomedical research scientists and serve a national role in supporting biomedical research throughout the UK.

During the years 2009-2014, our strategy is to:

- **Continue to maintain a balanced portfolio of research in different venues, including our five core-funded Institutes**
  - Ensure the development and implementation of well-defined strategies for each of our Institutes that will be distinct but coordinated with each other, particularly in terms of technologies and areas of world-class speciality
  - Develop Institutes that are basic and translational in focus, to complement the clinical focus provided through Centres
  - Work with the MRC, UCL and the Wellcome Trust to establish the UK-CMRI, incorporating our London Research Institute

- **Establish a UK-wide network of up to 20 Cancer Research UK Centres which will benefit from sustained infrastructure and training support in order to:**
  - Enhance the quality of research undertaken and build cross-disciplinary working
  - Ensure that cancer research feeds through to improved patient benefit and public health
  - Train the clinical and non-clinical research workforce of the future
  - Ensure a broad research coverage across the UK (geography, cancer types, radiotherapy, surgery, research areas)
  - Expand public engagement and information provision
  - Be the first port of call for new developments and strategic initiatives
  - Offer an opportunity to develop new partnerships, for example to work with disease-specific charities

- **Create space for bold initiatives so that we have the flexibility to respond to exciting new developments in research whenever they happen**

- **Continuously review whether we have the right governance and funding streams to meet the needs of our research strategy, particularly in terms of encouraging autonomy and innovation and reducing bureaucracy**

- **Streamline our application process and award management systems**

- **Identify and provide access to new reagents, data, technologies and infrastructure that are needed to make the fastest progress in cancer research**
Providing the right people for research

To achieve our goals, we need the best biomedical scientists, the best clinical researchers and the best research leaders. Moreover, we must promote cross-disciplinary research with physicists, chemists, engineers and mathematicians who can provide new insights into our understanding of cancer at a systems level and enable us to develop novel approaches to treatment.

We must ensure that we are training the workforce we will need up to and beyond 2020. This means encouraging the best scientific researchers to focus on cancer research and also making strategic recruitments in areas where we have identified gaps. In addition, we need to recruit, mentor and develop the next generation of scientists. We need to develop excellent schemes for training and career development, particularly in new and emerging areas of research.

We have played a key role in training most of the medical oncologists practising in the UK. We will build on this to address the current deficit in clinician scientists working at the translational interface and in cancer surgery and pathology. Our Centres and Institutes will play a key role in this training, balancing the experience that accompanies stability with the fresh ideas brought about by the next generation of scientists.

With an increasing move towards large-scale science and ever more tailored treatments, it is more important than ever to invest in and foster collaborations in the UK and across the world. Partnerships will allow us to fund the type of science that would otherwise be beyond the scope of Cancer Research UK, or even the UK.

We will explore how we can develop further international relationships and evolve our existing relationships with organisations in the United States, Europe and around the world.

The pharmaceutical, biotechnology and medical diagnostics industries play a key role in the improvement of cancer care. We will continue to consider where there is greatest potential in working with industry and what the implications of such relationships might be for the Charity as a whole.

During the years 2009-2014, our strategy is to:

- **Increase the number of international leaders in cancer research working in the UK**
  - Attract world-class young people with potential, as well as established leaders in new fields of science to work in cancer research in the UK
  - Make strategic recruitments from overseas in specific science areas
  - Make strategic recruitments to drive clinical and translational research, to address the lack of suitably qualified clinical and translational academics in the UK

- **Continue to develop and maintain schemes for training and career development to ensure that the UK is developing a cancer research workforce for the future, pioneering the development and provision of relevant training in our Institutes and Centres and working in partnership where possible**
  - Maintain our current investment in training schemes while modifying the existing portfolio where necessary
  - Establish targeted fixed-term initiatives to stimulate specific research areas where there are gaps
  - Develop mechanisms for senior or retiring researchers to provide mentorship for junior group leaders in Institutes and Centres

- **Continue to invest in and foster national and international collaborations to deliver the best research**
  - Consider current and potential connections with the pharmaceutical and biotechnology industries and develop relationships as appropriate
  - Continue to invest in all collaborations that help us work towards our goals
  - Examine the potential for broader international partnerships, including securing funding from the EU Innovative Medicines Initiative
Local Engagement and Development
Our Local Engagement and Development initiative will foster relationships between Cancer Research UK, our Centres and local cancer communities – including patients, researchers, the NHS clinical groupings, universities and our supporters.

We want people to feel more closely connected to Cancer Research UK through knowing more about the work of their local Cancer Research UK Centre and by coming into contact with our health information and campaigning activities in a way that is relevant to them.

We will make it easier for people to see the relevance of Cancer Research UK to their lives and those affected by cancer; thereby hopefully engendering greater support for us to invest in research.
Cancer Research Technology

Cancer Research Technology (CRT), which is wholly owned by Cancer Research UK, will support us in our efforts to achieve our 2020 goals. Over the last 20 years, CRT has established itself as one of the most successful technology transfer organisations in the world and has, more recently, added early drug discovery capabilities to its core competencies.

CRT has been self-financing through drug royalties and returns from the many new biotech companies it has helped to spin out. It has generated considerable profits that have been passed back to Cancer Research UK for further investment in research. Over the next five years, as royalties from the drug temozolomide decline, CRT will be partially funded for its drug discovery work by Cancer Research UK.

Over the next five years, CRT will concentrate on increasing its pipeline of molecules for clinical development. It will complete the expansion of its Discovery Laboratories in order to maximise the chances of commercialising new opportunities via in-house development. It will consolidate its operations in the US and Australia and clarify the proportion of time dedicated to third party business (developing cancer opportunities derived from non-Cancer Research UK funding sources).

CRT will become even better integrated into our strategy through the alignment of Institute-based business teams and by helping Cancer Research UK to determine its approach to biomarker development. CRT will also be at the centre of developing broader strategic alliances with industry.
We enable and encourage people to make informed choices that will reduce their risk of cancer, increase their chances of early detection, understand their cancer and make appropriate treatment decisions.

Information is an integral part of improving cancer services and outcomes, and forms a key part of our strategy.

Our patient information website, CancerHelp, is the most visited cancer site in the UK and regularly receives over one million visits per month.

Our CancerStats service is regarded as a leading source of statistical information on cancer in the UK, and is regularly quoted by the media, other charities and the Department of Health. Through our media and PR work we have established the Charity as the authoritative voice on cancer.

Prevention and early detection

Around half of all cancers could be prevented by changes in lifestyle. Tobacco is well known as a leading cause of cancer and will continue to be a major focus of our messages. Less well known are the links between cancer and obesity, diet, alcohol and inactivity, all of which increase the risk of developing cancer as well as other diseases.

We will continue to develop campaigns on tobacco and sun exposure, and aim to work with other organisations on alcohol, obesity, diet and inactivity campaigns. Our Cancer Awareness Roadshow will take our health messages to some of the UK’s most deprived communities, and we will explore opportunities to further engage local Primary Care Trusts with this work.
Many thousands of cancer deaths could be avoided each year if cancer was diagnosed earlier. This is probably the single biggest reason why UK cancer survival rates are lower than in many other countries in Europe.

We aim to make earlier diagnosis of cancer a major focus and to act as a catalyst for action. We are co-chairing the National Awareness and Early Diagnosis Initiative (NAEDI), which brings together a wide range of experts and organisations to understand what causes delay in diagnosis, establish the best ways of helping the public to recognise symptoms and to get them checked out by a doctor; and to understand the link between early diagnosis and survival. We have funded the development of an awareness measurement tool and will now facilitate its application across the UK.

**Treatment and trials**

Ensuring people with cancer have access to accurate information, at the right time and in the right way, is vital to helping them make appropriate decisions and understand their treatment.

We will continue to provide definitive information to people affected by cancer in the UK through our CancerHelp website and our nurse helpline. We will expand our information on all aspects of cancer and particularly our unique easily accessible database of all cancer clinical trials in the UK. We do not plan to expand our nurse helpline or fund information provision at a local level.

Our nurse enquiry team has daily contact with patients, giving us valuable insight into the concerns of people with cancer. We will ensure that these insights are used whenever appropriate to help inform our thinking.

We are working with Macmillan Cancer Support to deliver personalised information prescriptions within the NHS. We hope this will trigger a change in the way doctors and nurses give information directly to patients and will complement our other information services.
Explaining complexity and statistics
Our research work is often difficult for non-experts to understand, so we aim to translate the complexity of cancer into easily understandable and accessible information, both directly to the public and to our supporters through our fundraising channels.

Cancer is high on the media agenda and our challenge is to use this opportunity effectively and responsibly to increase people’s understanding of the disease. Increasingly we are using our website to make information easily accessible, using different formats, such as our science blog. We will increasingly use both video and audio content to help people find the information they want, delivered in the way they want it.

Our cancer statistics are constantly updated and available on the web. We will work in partnership with the newly formed National Cancer Intelligence Network (NCIN) to oversee the collection, analysis and publication of high-quality cancer outcome information and explore the many opportunities this rich data gives for enhancing patient choice and improving cancer services.

Our brand and reputation
The Cancer Research UK brand enjoys high levels of awareness, emotional support and trust. The advances we make set us apart and deliver a message of hope. But our weakness is that many people do not recognise the link between our research and the progress in cancer outcomes. Our future challenge is to demonstrate and communicate the link between Cancer Research UK, the research we do and the positive impact this has on people’s lives.

We will highlight the research that we do on specific cancers and the work we do in local areas. Our Centres will give new opportunities for people to engage with our brand over the next few years as they become established.
Influencing public policy

Our pre-eminence in cancer research, coupled with our huge public support, provides us with an authoritative and influential voice, which is growing in its capacity to effect change.

Through our consultations and our research we develop sound, evidence-based policy. From this we build strong and influential relationships with politicians, opinion leaders and decision makers, engaging our supporters and the general public in our campaigns for change.

Our Policy and Public Affairs team will continue to play a key role in monitoring legislative changes at national and EU level across the whole range of the Charity’s activities, and in responding to critical consultations which may affect our work.

We will keep a watchful eye on developments regarding the general election and emerging party policies, but our priorities are likely to remain unchanged for the short to mid-term of this plan. Our public affairs team will work to press Government and others on the following priorities:

Preventing more cancers
Public ignorance of how people can reduce their risk of cancer is high, but there needs to be a balance between personal freedom and state intervention.

Any Government action in this area could have a major impact on the incidence of cancer. Our work will proactively target areas of policy that have the potential for the greatest impact on cancer outcomes, particularly tobacco and excessive sun exposure. We will also support Government efforts to tackle obesity, excessive alcohol consumption and sedentary lifestyles.

Detecting cancer earlier
Late diagnosis of cancer is a key factor in some UK cancer survival rates lagging behind those of the best performing countries in the world.

Our work will target three areas of Government policy to tackle the issue of earlier cancer detection. We will:

• Press for programmes to encourage greater awareness of the signs and symptoms of early cancer at an individual and GP level.
• Work to ensure Government provides people with rapid access to high-quality, modern diagnostic services.
• Ensure Government supports the national roll-out of new screening programmes when there is evidence to justify doing so, and promotes the uptake of cancer screening among the public.

Providing access to world-class cancer services and treatment
We will continue to constructively challenge the Government to develop policies, legislation and action plans to:

• Bring the UK’s cancer drug spend up to the average of comparable European countries.
• Ensure that new cancer therapies are appraised for use on the NHS quickly and effectively, addressing the continuing regional variations in access to new drugs in the absence of NICE decisions.
• Ensure local action plans are developed to reduce waiting times by increasing capacity in the radiotherapy workforce and equipment.
• Provide all patients with access to new surgical techniques by ensuring adequate investment in the training and accreditation of surgeons.
• Ensure full implementation of Improving Outcomes Guidance and other national treatment protocols for cancer, including for rare and less common cancers, as rapidly as possible.
• Identify those NHS Trusts failing to reach agreed cancer standards and help them to develop action plans for service improvement and development.
• Drive improvements in service quality across the country using data on service performance and outcomes from the NCIN.

Tackling cancer inequalities
A number of different groups in society experience unacceptable inequalities in cancer. The nature of these inequalities in cancer is complex, and we have only limited evidence in some areas. But we will push Government to do more to tackle cancer inequality where it can.

Protecting the UK’s position at the forefront of international biomedical research
In order to sustain long-term cancer research, it is essential that the UK’s position at the forefront of science is secured and enhanced. Researchers must be adequately funded and able to carry out their work in an environment that is supportive of research and its translation to public benefit and does not impose an unnecessary regulatory burden.

We will promote a range of measures that Government should adopt to achieve these aims, to support charity-funded research in universities and to continue developing a research-friendly NHS.
Partnerships
We believe that we can have the greatest impact by working in partnership. Many of our partners have clearly articulated what they will be focussing on in the future. This helps us determine the areas in which Cancer Research UK can contribute most effectively in the fight against cancer.

We have developed strong relationships over the years with universities, research councils, health departments, industry and the international research community and we will continue to collaborate to maximise our impact.

We have built a constructively critical relationship with Government. It is vital that we continue to build on these relationships as we face many challenges in our joint efforts to fight cancer.

The European Union (EU) increasingly influences how we work and provides scope for funding opportunities. We will engage with the appropriate EU bodies to seek funding where it will help us to achieve our goals.

The National Cancer Research Institute (NCRI), a virtual organisation representing a partnership of more than 20 major UK funders of cancer research, also helps to frame our work. We are major financial and strategic contributors to the NCRI and particularly welcome its efforts to ensure that discoveries in basic science should benefit cancer patients as rapidly as possible.

World leading scientists
Through their ingenuity and achievements, a number of our scientists have gone on to become some of the most authoritative voices in cancer worldwide. Many have won major prizes, including the Nobel Prize, and have helped to position the UK at the forefront of biomedical research worldwide. In addition, Cancer Research UK has helped to train the vast majority of medical oncologists now practising in the UK, as well as a number of specialist cancer nurses.

Our staff and supporters
People are at the heart of Cancer Research UK. It is thanks to the partnership between our supporters, our staff, our scientists and patients that such progress has been made in beating cancer. We simply could not do our work without them all.

Millions of people support Cancer Research UK in many different ways. Their committed and long-term financial support enables us to plan ahead and fund valuable work unparalleled in the charity sector. We are committed to spending our supporters’ money carefully and ensuring that every penny possible goes towards our programme of work.

We are extremely grateful to everyone who has made our work and achievements possible. As we launch this five year strategy we hope that everyone will be inspired to support and fund our future ambitions.
Over the next five years we will see further dramatic progress in the prevention, diagnosis and treatment of cancer. Cancer Research UK will be at the heart of this progress.
Our Executive Board

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