Extending lives
Trial shows positive results for prostate cancer patients

In our blood
Why liquid biopsies could be the way forward

Public opinion
How patients and the public inform our work

Radiotherapy revolution
Partnering with industry on the UK’s first MR Linac

From bench to bedside
How our BRC supports pioneering translational research
The BRC in numbers

A snapshot of the work of the Biomedical Research Centre at The Royal Marsden and The Institute of Cancer Research, London

£62m

in funding was awarded to the BRC by the National Institute for Health Research in 2011

300

patients are treated on Phase I drug trials every year in the Drug Development Unit at The Royal Marsden and the ICR

30%

of all consultant medical oncologists in the UK have training from The Royal Marsden or the ICR at registrar, doctoral or postdoctoral level, making the BRC the UK’s largest training centre for oncology

10,400+

patients were recruited to studies the BRC led or participated in during 2013/14

50,000

patients are treated every year at The Royal Marsden, which – together with the ICR – is one of the world’s top four cancer centres

282

peer-reviewed publications were generated (original research and review articles) through BRC-funded research during 2013/14
Welcome
to the first edition of Advance, the magazine that highlights the world-
leading work carried out at the National Institute for Health Research
Biomedical Research Centre at The Royal Marsden and The Institute of
Cancer Research, London.

The Royal Marsden and The Institute of Cancer Research (ICR) are together
ranked in the top four centres for cancer research and treatment worldwide.
Our BRC is the only one in the UK dedicated to cancer. Our aim is to
drive pioneering research into prevention, diagnosis and treatment, and
translate research into patient benefits. We are making a significant impact
on improving patient outcomes through precision treatment.

We were awarded BRC status in 2006, and it was reawarded in 2011
for a further five years. We are proud to be a world leader, using National
Institute for Health Research (NIHR) funding to drive progress in cancer
treatment. Our work is split, broadly, into two key areas: cancer therapeutics
and the molecular classification of disease. Our activities are diverse and
include areas such as drug development and health services research.

In this issue, we’ll focus on the world-class facilities the BRC has at its
disposal and how they drive our research. We also look at patient and public
involvement, Dr Nicholas Turner’s work into liquid biopsies and Professor
Johann de Bono’s research into prostate cancer.

I hope you enjoy reading the first edition of our magazine.

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Cover photograph: Professor David Cunningham, Director of the Biomedical Research Centre

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DIRECTOR’S NOTES
The pioneering drug abiraterone significantly extends the lives of men with advanced prostate cancer if administered before chemotherapy, results from a major Phase III clinical trial have shown.

The findings, published in The Lancet Oncology, showed that men with advanced, aggressive prostate cancer lived an average of more than four months longer if they received abiraterone before chemotherapy than if they did not.

The study compared the average survival of 354 men who were given abiraterone before moving on to chemotherapy with 387 men who received a placebo. Men who took abiraterone lived an average of 34.7 months, compared with 30.3 months for those who did not.

The trial was led by Professor Johann de Bono of The Institute of Cancer Research, London, and The Royal Marsden, and funded by abiraterone manufacturer Janssen. A second analysis of data from the same trial, published in Clinical Cancer Research, showed that a subset of men benefited from the drug more than the overall group.

Men in this subset had pronounced mutations in the ERG gene, which is often associated with faster cancer progression, and responded particularly well to abiraterone. This group lived for 22 months without their disease progressing, compared with 5.4 months for men with the same ERG status who received a placebo.

Abiraterone, which was discovered at The Institute of Cancer Research (ICR), is already an option on the NHS for men with advanced cancer who have previously received chemotherapy.

“We’ve shown that abiraterone extends life if taken before chemotherapy”

Professor Johann de Bono, Head of Drug Development at the ICR and The Royal Marsden

The new findings suggest it could benefit men earlier in treatment, sparing them the side effects of chemotherapy.

Professor Johann de Bono, Head of Drug Development at the ICR and The Royal Marsden, said: “These studies represent very important advances. In the overall analysis, we’ve shown that abiraterone extends life if taken before chemotherapy.

“The second study shows men with a certain type of mutation in their tumour responding particularly well to abiraterone, and could help provide a rationale for using abiraterone as early as possible in men with these mutations.”

Further reading: www.ncbi.nlm.nih.gov/pubmed/25601341
The Royal Marsden and the ICR will be the first organisations in the UK to gain access to the MR Linac, a state-of-the-art radiotherapy system, after entering into a pioneering research collaboration with manufacturer Elekta.

Successful collaboration with industry is critical to the work of the BRC at The Royal Marsden and the ICR, and we have links with more than 100 commercial organisations, including pharmaceutical and technology companies.

The association with Elekta, a health technology company based in Sweden, and Philips, the healthcare technology and consumer electronics company, will enable the development of the MR Linac in the UK. This provides the potential to combine two advanced technologies: magnetic resonance imaging (MRI) and a linear accelerator.

The ICR and The Royal Marsden will be part of an international consortium of leading research organisations, including the University of Texas MD Anderson Cancer Center, that is aiming to exploit the excellent soft-tissue contrast of MR images to improve the accuracy and effectiveness of high-precision radiotherapy.

Radiation fields can be adapted to a patient’s anatomy during treatment for a range of cancers that are challenging to image effectively and target with radiation. Combined with on-board adaptive treatment planning, the new technology aims to ensure that each patient receives an optimal treatment – balancing the benefits of tumour control and the risk of side effects.

Professor Kevin Harrington, Joint Head of the Division of Radiotherapy and Imaging at the ICR and Consultant Clinical Oncologist at The Royal Marsden, said: “We are delighted to join this pioneering research partnership to develop the MR Linac, which represents the very latest in radiotherapy technology.

“It’s hugely exciting to be at the forefront of research into new approaches to radiotherapy, with the potential to directly benefit patients at our hospital and across the NHS.”

The technology and its installation at The Royal Marsden’s Sutton site will be funded through a £10-million grant from the Medical Research Council. Scientists at the ICR will develop the technology in a preclinical phase of research, before clinicians at both organisations begin treating the first patients within three years – initially through clinical trials at the new facility.

Clinicians commended for industry engagement

Four Royal Marsden consultants have been recognised by Professor Dame Sally Davies and the NIHR for their efforts to engage with the pharmaceutical industry. Dr James Larkin, Consultant Medical Oncologist in melanoma and renal tumours; Dr Sanjay Popat, Consultant Medical Oncologist in lung cancer; Dr Julia Chisholm, Consultant Paediatric Oncologist in sarcoma; and Dr Donna Lancaster, Consultant Paediatric Oncologist in childhood leukaemia/lymphoma, were commended at an event held by the NIHR Clinical Research Network.
 OUR FUTURE LEADERS

The BRC is training the next generation of leaders in translational and clinical research, including specialists who are driving advances in robotic surgery, biomarker discoveries and state-of-the-art clinical trials.

Shahnawaz Rasheed
Mr Shahnawaz Rasheed is a Consultant Colorectal Surgeon at The Royal Marsden and a Senior Lecturer for the BRC and Imperial College London who specialises in complex, locally advanced and recurrent colorectal cancer. His research focuses on developing new surgical techniques, particularly using the da Vinci Xi robotic surgical system. He and colleague Professor Paris Tekkis were the first surgeons in England to carry out colorectal surgery using the new robot.

Mr Rasheed said: “Operating with the da Vinci Xi reduces the pain and blood loss often caused by open surgery, and minimises the patient’s hospital stay and recovery time. My research involves investigating how different techniques can be used in open, minimally invasive and robotic surgery. I am also examining these techniques from an academic perspective by investigating how they will affect the patient’s quality of life, as well as the clinical effectiveness. “Without an operation, advanced colorectal cancer patients are not expected to survive. This is the best option to extend their life. These patients are often people who have come to us having seen several other consultants in other hospitals – we are their last hope. These operations are extremely extensive and require a multidisciplinary team. The BRC enables me to carry out valuable research, which is directly benefiting patient outcomes.”

Dr Timothy Yap
Dr Timothy Yap is a BRC Clinician Scientist at the ICR and Consultant Medical Oncologist at The Royal Marsden. He is primarily involved in translational cancer research, and the design and conduct of first-in-human, early-phase, biomarker-driven clinical trials, with a special interest in lung cancers.

Dr Yap said: “As a translational clinician scientist, I bridge the gap between laboratory and clinic. I have the responsibility of bringing new scientific research and novel anti-cancer drugs quickly from the lab to clinical trials, and taking the patient experience back to the lab to shape the direction of my research.”

Dr Irene Chong
Dr Irene Chong is a BRC Clinician Scientist at the ICR and a Consultant Clinical Oncologist at The Royal Marsden. Her aim is to discover new therapeutic targets and biomarkers for oesophageal and rectal cancers through DNA sequencing of cancer cells.

Dr Chong said: “As a female clinician, I feel very supported by the ICR, The Royal Marsden and the BRC. It is a unique set-up where I can analyse samples in the lab in a timely manner and use this data to make discoveries, which can then be taken into clinical trials for real patient benefit.”

“The BRC enables me to carry out valuable research that directly benefits patients”

Mr Shahnawaz Rasheed, Consultant Colorectal Surgeon at The Royal Marsden and Senior Lecturer for the BRC
Liquid biopsies have the potential to transform cancer treatment by providing a cheaper, less invasive way of evaluating the genetics of a tumour than a biopsy or expensive scan. Our researchers have been looking at circulating tumour cells – cancer cells shed into the bloodstream – to see how well a tumour is responding to treatment. They then use these cells, instead of a biopsy, to analyse what’s causing it to grow.

The ICR and The Royal Marsden are now taking this further by looking at circulating tumour DNA. This is free DNA in the blood that has been released from cancer cells and can be detected in a blood test. We believe this could transform how we treat cancer patients.

For example, we can get a genetic profile of the cancer, non-invasively, and discover which mutations are driving it. We can then use this information to identify the right course of treatment for that patient at that time. As tumours can change as they go through treatment, and taking multiple, repeated biopsies can be difficult, a simple blood test may be a much better way of directing treatment.

The Royal Marsden and the ICR already have clinicians and researchers working with circulating biomarkers in prostate, breast, lung and gastrointestinal cancers, and more recently head and neck cancers and paediatrics. Some of our studies have already yielded exciting results. One major study in prostate cancer found that by monitoring tumour DNA, it was possible to predict which patients would respond to the drug abiraterone, which could allow doctors to switch unresponsive patients to an alternative drug.

Another exciting development at our BRC is the use of circulating tumour DNA to assess patients who have had surgery to predict those who could relapse years later. Early research suggests that highly sensitive tests could help pick out those patients who aren’t cured by their surgery and will need further treatment to increase their chances of a cure.

At the moment, circulating biomarkers remain a research tool, and we need further studies to validate their use in patients before they can become part of routine care. But research here at the BRC is driving the development of these tests and their use in clinic shouldn’t be far away. It’s still early days, but circulating biomarkers have an exciting future in cancer treatment.

**Dr Nicholas Turner**, Consultant Medical Oncologist at the ICR and The Royal Marsden, discusses how assessing biomarkers circulating in the bloodstream could improve the way we treat cancer.
Our researchers are striving towards a future where every cancer patient receives a combination of therapies tailored for their individual tumour. In order to achieve this goal, the NIHR Biomedical Research Centre at The Royal Marsden and the ICR is putting in place essential core resources including a wealth of tumour samples, diagnostic facilities and analytical techniques. We also provide central support for clinical trials, delivering an innovative programme of biomarker-driven and adaptive trials to take new treatments to patients.

Cancer Biobank
A major strand of our BRC’s strategy is the molecular profiling of cancers, which enables researchers to identify the genes that could be biomarkers of treatment response or prognosis, or targets for the next generation of cancer treatments. But a significant barrier to this research is access to tumour tissue. This is a particular problem for researchers working on rare cancers such as childhood tumours or sarcomas.

To solve this problem, our BRC has launched a Cancer Biobank, which will collect blood and tumour samples and make them available to researchers. The Biobank has space for more than 900,000 frozen samples and will include one of the world’s largest collections of sarcoma samples, made possible due to The Royal Marsden’s status as one of the two main national referral centres for the disease.

Samples are now collected from every clinical trial run at The Royal Marsden and can be linked to the clinical data that is collected from each patient. The samples are stored within the NIHR Centre for Molecular Pathology (CMP) in Sutton, in facilities that are compliant with Human Tissue Authority regulations.

Molecular diagnostics
We aim to treat patients based on the most up-to-date knowledge of their genotype and phenotype.

The CMP brings together world experts in molecular diagnostics, bioinformatics and translational research in state-of-the-art laboratories and an innovative environment that encourages collaboration. Our researchers are identifying biomarkers of disease prognosis and treatment response or resistance, and searching for new molecular targets for cancer drugs in a range of tumour types, including gastrointestinal, paediatric and breast cancers. We have recently expanded our molecular diagnostics facility to bring these new discoveries into the clinic, ultimately embedding precision medicine into routine care.

Under the leadership of Dr David González de Castro, a study by researchers at the ICR used tumour samples collected at The Royal Marsden to shed new light on the development of testicular cancer. It uncovered several new genetic mutations that could drive the disease and identified a gene that may contribute to tumours becoming resistant to current treatments. The study was the first of its kind to use advanced sequencing technology for testicular germ-cell tumours, and could lead to ways of detecting the disease earlier, or identifying men who need more intensive treatment.

CASE STUDY
UNDERSTANDING TESTICULAR CANCER
The purpose-built Centre for Molecular Pathology opened in 2012 and was part-funded by the NIHR.
patients in this way increases the likelihood that they will benefit from the intervention and brings us closer to the vision of fully personalised medicine.

The West Wing Clinical Research Centre, which opened in March 2014, is designed to enable daycare patients on early- and late-phase complex interventional clinical trials to be treated in a dedicated research facility. In addition to treatment bays and consulting rooms, it includes a dedicated on-site laboratory and a research biopsy service to support the additional diagnostic tests required in many of our clinical trials.

Professor David Cunningham, Director of the BRC, says: “The aims are to test preclinical theories relating to targeted drugs in a clinical setting, and to refine patient selection strategies for the drugs based on their biomarker status. Through our trials, we are working out how to implement this approach in the clinic.”

The recently expanded Clinical Trials Unit co-ordinates all the new trials that are sponsored by The Royal Marsden, ensuring an integrated approach across all clinical studies. It provides specialist input on all aspects of trial design, co-ordination, conduct and analysis.

Many of the trials supported by BRC infrastructure have gone on to change clinical practice in the UK and worldwide. For example, the START trials have resulted in tens of thousands of breast cancer patients every year needing fewer radiotherapy sessions.

The Drug Development Unit, supported by the BRC, is one of the largest centres in the world for Phase I clinical trials into cancer. Researchers at the ICR and The Royal Marsden have tracked the unique genetic paths used by childhood brain tumours when they relapse. Their study showed that taking an extra tumour sample from children with medulloblastoma at recurrence, when there are no effective therapies, could identify subsets that may be treatable with existing drugs that target the genetic faults.

Clinical trials
The BRC has invested heavily in the infrastructure required to support wide-ranging and pioneering clinical trials. Many of these are designed to take molecularly targeted agents discovered at the ICR into the clinic for the first time, and are heavily supported by the molecular diagnostics facilities in the CMP.

The Drug Development Unit is a joint unit of The Royal Marsden and the ICR, and is partly supported by a core grant from the BRC. It aims to drive two-way communication between laboratory and clinical teams, and integrates preclinical drug discovery, proof-of-principle Phase I trials and tumour-specific evaluation of novel agents.

The unit looks after almost 300 patients a year on more than 30 Phase I clinical trials, making it one of the largest facilities of its kind in the world.

Researchers can molecularly profile patients by detecting mutations in tumours and in the blood. Those with specific tumour mutations are recruited onto trials that target the mutation of interest. Selecting
Liquid biopsy facility

One of the most exciting developments in cancer research today is the liquid biopsy – testing for tumour cells and free DNA that circulate in the bloodstream. Blood tests should be much cheaper and less invasive than taking repeated samples of tumours with needle biopsies.

The ICR and The Royal Marsden are at the forefront of research that aims to take circulating tumour DNA tests into the clinic, and the BRC is now developing a new core facility to support those efforts.

Professor Johann de Bono, Professor of Experimental Cancer Therapeutics at the ICR and Honorary Consultant at The Royal Marsden, says: “A blood test is much less invasive to a patient than a biopsy and may provide a more reliable result. Our understanding of the genetic complexity of cancer has grown and, with this knowledge, we are starting to change the way we treat cancer patients.”

Read more about our work in liquid biopsies and circulating tumour DNA on page 7.

Together, The Royal Marsden and the ICR are driving world-class research studies and spectacular advances in cancer treatment. The state-of-the-art research facilities funded through the BRC should help to ensure that groundbreaking discoveries keep on coming and continue to deliver benefits for patients.

Discover more about the BRC’s world-class research infrastructure online at www.cancerbrc.org/our-facilities

CASE STUDY
A DRUG TO BLOCK CANCER GROWTH

Pictilisib, an experimental cancer drug discovered at the ICR, has been shown to block an important driver for the survival, growth and spread of a variety of cancers including breast, bowel and ovarian tumours. The trial, led by researchers at the ICR and The Royal Marsden with support from the BRC, used pioneering molecular techniques to track the activity of the drug against its target protein molecules. The study has cleared the way for pictilisib to move to larger-scale clinical trials, which are now under way.

The research facilities at the ICR and The Royal Marsden support the development of fully personalised medicine.
IN THE PUBLIC DOMAIN

Patient and public involvement in BRC-funded cancer research is vital to ensure the quality and relevance of our work.

The Royal Marsden, together with its academic partner the ICR, is among the world’s top four centres for cancer research and treatment. Crucial to our work is threading the ethos of patient benefit through all elements of research, ensuring the patient is at the heart of the process.

As the country’s only BRC dedicated specifically to cancer, we believe good patient and public involvement (PPI) is about empowering individuals and communities so they can play a greater role in shaping healthcare research. We have recently developed a new PPI strategy, with active involvement from our patient representatives on a patient and carer research review panel.

Dr Rowena Sharpe, Assistant Director of the BRC, says: “We aim to place our BRC at the forefront of patient and public involvement in cancer research, and ensure that the direction of the BRC is underpinned by guidance from targeted patient and public involvement.”

PPI is vital to BRC-funded research, as it brings together patients, members of the public and research teams to improve the quality and relevance of our work. The aim is to involve patients and the public at every stage of the research cycle, ensuring we carry out research that reflects the issues considered important by them and is relevant to those potentially affected by it.

Our strategy consists of six themes (see right), all of which we believe are essential in ensuring meaningful PPI occurs for BRC-funded research. Many of these areas include strands of work that have been previously established, but that will be expanded upon and improved.

Set up in 2011, the review panel is made up of 30 patients and lay members of the public, who meet four times a year and undertake virtual reviews throughout the year. It has given our researchers valuable feedback for designing their trials, as well as on how to explain research in leaflets designed for the patients taking part.

The panel has already been influential in deciding what research clinicians should be prioritising. Dr Natalie Pattison, Lead for PPI at The Royal Marsden, says: “Input from the patient and carer research review panel really helps shape and influence research so that we focus on what is important to our patients.”

Martin Lee, a Royal Marsden patient and member of the panel, says: “It’s very important that patients are involved with research, because it is us who will benefit from the results in the long run. I feel the PPI panel has offered patients a voice in shaping the way research is carried out for the benefit of future patients.”

Find out more about PPI at the BRC at www.cancerbrc.org/public-patient-involvement and watch our video at vimeo.com/95406167
Patient and public involvement

Prioritisation and input into research ideas to ensure that patients, carers and the public have a voice in prioritising which BRC research should be carried out.

Input into study design to involve and consult with patients, carers and the public within every research project at appropriate points in the research cycle.

Training researchers, trainees and support staff to ensure that they understand how to involve patients and that best practice is shared; and to ensure that all researchers are trained in the need for PPI, and receive support from the PPI manager and BRC team.

Training patient involvement representatives to maintain and update the development programme for patient representatives and members of the patient and carer research review panel; to ensure that patient representatives have clear expectations, the confidence to contribute fully to discussions, and adequate scientific and clinical training to ensure that concepts are fully understood; and to develop Patient Leaders/Champions in the main themes of research in the BRC programmes.

Information outlets to keep patients, carers and the public informed of our research and involvement opportunities through a variety of channels; and to ensure wide understanding and appreciation of research outputs of the BRC that affect patient wellbeing.

Events to link with the wider patient and carer community, both to stimulate thinking about the work of the BRC and to promote wider understanding of its value.

“The PPI panel’s advice really helps the BRC focus on what is important to our patients”

Dr Natalie Pattison, Lead for Patient and Public Involvement at The Royal Marsden
State-of-the-art sequencing techniques are identifying driver mutations in cancers and allowing drugs to be targeted against them rather than performing one test for one drug at a time.

We have started using exome sequencing to gain even more genetic information from tumour samples. This technique sequences all the protein-coding genes – about 25,000 – in a genome.

As part of the 100,000 Genomes Project, we are also carrying out whole-genome sequencing in several cancer types, including leukaemia and childhood brain cancer. This sequences the entire genome, containing all the DNA molecules in the cells, including parts that don’t contain genes. The aim is to analyse genetic alterations in unprecedented detail, to identify those that may influence patient outcomes but could not have been detected by any other method.

What challenges affect sequencing technologies?
Sequencing technology increases the amount of data generated from a single sample. We need to analyse and store this data, which requires computational infrastructure and robust analytical tools. There is also the challenge of applying the knowledge in clinic. As we identify more gene mutations, we need to create targeted therapies. The pharmaceutical industry, academia and the NHS must collaborate to design novel drugs and trials.

How is the BRC driving innovations in sequencing?
We’re investing in liquid biopsies, where circulating tumour DNA is extracted from a blood sample. Conventional sequencing requires relatively large amounts of tumour tissue, processed to preserve the DNA for analysis. Sometimes, a biopsy may not be large enough, and it is difficult to take multiple biopsies over time. But liquid biopsies may allow us to obtain genetic information from the blood.

Dr David González de Castro, Head of the Molecular Diagnostics department

Q&A

State-of-the-art sequencing techniques are identifying driver mutations in cancers and allowing drugs to be targeted against them
Professor Gina Brown leads the Colorectal Cancer Imaging Research Team at The Royal Marsden and is chief investigator on numerous national and international clinical trials. Her pioneering work in cancer imaging has led to the identification of risk factors that can be used to predict if patients with bowel cancer will develop more serious, metastatic disease.

The ICR and The Royal Marsden have together been world leaders for many years in cancer imaging and its use to target radiotherapy more effectively. The Colorectal Cancer Imaging Research Team works with the gastrointestinal, radiotherapy and surgery departments at The Royal Marsden not only to shape best practice in the use of imaging, but also to enhance the delivery of care for individual patients.

“We focus on ensuring that patients avoid needless surgery or overtreatment, and on finding new ways to identify high-risk patients earlier”

Professor Brown says: “Across a number of trials, we focus on ensuring that patients avoid needless surgery or overtreatment, and on discovering new ways to identify high-risk patients earlier in order to reduce the morbidity rate of colorectal cancer.

“The BRC funds our work on two levels. Firstly, in infrastructure, BRC funds pay for a full-time research fellow – releasing some of my clinical time to focus on research – and two trial co-ordinators, who ensure we follow protocol when setting up trials. Secondly, the BRC offers project grants in the form of seedcorn awards, one-year quick-win grants and large flagship and collaborative awards.”

Professor Brown was chief investigator of the MERCURY trial, which tested the use of magnetic resonance imaging (MRI) to identify what stage a patient’s cancer had reached. The results led to the widespread adoption of this technique in clinics in the UK and overseas. Using MRI to stage cancers means that radiotherapy is now used only to treat those patients who we know will benefit.

Small-grant BRC funding has proved particularly useful, enabling Professor Brown’s team to conduct studies off the ground, collate their findings, and use them as the basis for further research. The team can use initial findings to secure funding from other organisations for larger-scale studies, which could change global clinical practice.

Curriculum vitae

1998  Joined The Royal Marsden as Locum Consultant in breast, interventional and cross-sectional imaging
1999  Appointed Consultant Radiologist at The Royal Marsden as Gastrointestinal Cancer Imaging Lead
2002  Initiated a multicentre international multidisciplinary research group for clinical investigations in rectal cancer
2014  Awarded Chair in Gastrointestinal Cancer Imaging at Imperial College London
As the UK’s only Biomedical Research Centre dedicated to cancer, our mission is the rapid translation of advances in research to improve the outcomes for patients with cancer through precision treatment. This is our ‘bench to bedside’ approach.

Groundbreaking research
Across eight research themes, we translate our findings into advances in treatments for cancer patients.

World-class facilities
Including the Drug Development Unit, Centre for Molecular Pathology and West Wing Clinical Research Centre.

Training and development
We are the UK’s largest training centre for oncology, with a proud history of championing women in medical research.

Patient and public involvement
We incorporate and integrate the perspectives of patients, carers and the public into our research.

The Biomedical Research Centre is a partnership between The Royal Marsden and The Institute of Cancer Research, London. Together, we receive funding from the National Institute for Health Research.

Find out more: www.cancerbrc.org | www.royalmarsden.nhs.uk | www.icr.ac.uk | www.nihr.ac.uk