I n early November 2013, the BT Convention Centre in Liverpool hosted the four-day NCRI Cancer Conference, which is now celebrating its ninth successful year.

Consistently recognised as the leading cancer research gathering in the UK, the conference plays a key role in uniting researchers across the country and internationally. The jam-packed programme for 2013 did not disappoint, showcasing the work, knowledge and ideas of over 150 participating experts in the form of workshops, plenary lectures, symposia and parallel sessions, to name a few.

Playing various key roles in the field, the speakers offered their insights into a multidisciplinary approach to wide-ranging topics within cancer research – spanning basic science to clinical studies, translational science and end-of-life care – piquing the interest of over 1,700 attendees.

Following up from the conference, International Innovation presents exclusive interviews with four of today’s most established experts in the field.
PROFESSOR SIR BRUCE PONDER
First Director of the Cancer Research UK Cambridge Institute

INSTINCT FOR SUCCESS

Winner of the prestigious Cancer Research UK Lifetime Achievement in Cancer Research Prize, Professor Sir Bruce Ponder is the first Director of the Cancer Research UK Cambridge Institute. He is also Professor of Oncology at the University of Cambridge. In a candid discussion, he reminisces about his career – revealing his bravery in stepping off the ‘conventional career escalator’ – and shares his thoughts on his seminal contributions to cancer research.
Firstly, congratulations on having been awarded the 2013 Cancer Research UK Lifetime Achievement in Cancer Research Prize. What does this accolade mean to you and what were your secrets to successfully establishing the Cambridge Institute as a world leader in cancer research?

The citation for the prize gives particular mention to the success of the new Institute in Cambridge. I am delighted that not just my own contribution, but also the important contribution of my colleagues in building the Institute has been recognised in this way.

The key to success is to recruit the right people. Once you have recruited them, you should let them follow their own scientific instincts and listen to what they have to say.

Did acting as the first Director of the Institute necessitate a novel approach? What were your key aims and objectives upon appointment, and have you achieved all you had hoped?

I was helped by being near the end of my own scientific career, which meant I was not tempted to build the Institute in my own image.

New ideas often arise at the intersection of different disciplines, so I deliberately recruited across the spectrum of physical and biological science, and (unusually for the UK) was able to attract several clinicians who were both active in treating patients and running international-class laboratory programmes. We risked being spread too thin, but gained depth through interaction with the range of science elsewhere in Cambridge.

During the recruitment process we put huge effort into looking not just for excellence, but for willingness to share; and I think that proved really important. There is more to achieve, and I look forward to seeing that happen under the direction of Simon Tavaré.

Cancer is a fundamental problem in biology – it is an example of what can happen when the rules that govern development and tissue organisation break down.

What key challenges did you encounter in bringing the science of Cambridge to bear on the practical problems of cancer?

There was no difficulty in bringing excellent science to bear on the practical problems of cancer within the Institute. The challenge outside the Institute was to persuade scientists, who are highly individual and focused on their own projects, that the Cancer Centre had any real meaning for them. Experience at many other Centres around the world has shown that this takes time. People will work together if they realise that in doing so they can achieve more than they could alone. However, it is difficult to get people to risk distraction from their own successful research, unless there is the prospect that resources are available to develop the proposed new interactions. Put another way, the easiest way to herd cats is to put down a plate of food. Not to make the cats sleepy and content; but to strengthen them to hunt even better. I hope that the new strategic programmes that Cancer Research UK (CRUK) intends to open for competition in the next year or two will address this.

Since it opened in 2007, how has the Institute evolved, and, on a broader scale, has the cancer research landscape changed tangibly during this time?

I recruited Group Leaders across a range of disciplines because I hoped that they would interact productively and new ideas would evolve. I think this has happened, and has been a major part of our success: but not all of the interactions were the ones that I had expected! Some failed to develop, but others that I had not thought of turned out to be outstanding successes. The lesson I take is that strategic plans and deliverables are less important than getting the right mix of people and creating a supportive environment.

The major change in the cancer research arena since we opened has been the increasing understanding of the genomic and gene regulatory landscape of cancer development; and in parallel, the development of novel ways of monitoring the tumour by molecular imaging and by sampling of circulating tumour DNA. The Institute is strong in these areas and is well placed to make distinctive contributions.

Following the philosophy that you did not want to find in 2016 the scientific cores you had set up in 2006, how do you remain one step ahead, at the cutting edge of your field?

Our core resources have been outstanding, and a major reason for the success of the Institute. Once the delivery of the essential core technologies is secure, we encourage the core resource staff to interact with the scientists to understand the bottlenecks in their research and to help find technical ways to solve them. We encourage the senior core staff to attend conferences and meetings, visit other institutes, interact with industry, and to bring back and develop new ideas, always with the proviso that they are not ideas for their own sake, but rather relevant to the needs of Institute research.
Is your time at the Institute associated with a particularly fond memory you would like to share? To what have you turned your attention since you stepped down as Director?

My fondest memory of the Institute is of the friendship and support of my colleagues, and of the ‘buzz’ that one felt walking through the door. The achievements, from Group Leaders to students, in winning prizes, elections to learned societies, and simply publishing outstanding research, have given me enormous pleasure.

Although I stepped down as Director in 2013, I remain Head of the University Department of Oncology and Director of the Cancer Centre. So I do not exactly have time on my hands! While I was Director, I ran my lab down to one postdoc, one student and a couple of technicians, but I am starting to build it again. Some years ago, my group published the first cancer genome-wide association study, and I am hoping to use a gene expression network approach to better understand the mechanisms by which polygenic susceptibility leads to cancer.

As an eminent cancer scientist, would you say you have set an example to, and played an instrumental role in nourishing the development of, the next generation of scientists in your field?

You will have to ask others whether I have set an example or nourished the development of scientists or clinicians in oncology! I think I have been a rather unusual medical oncologist in that from the start of my career 35 years ago, my platform as a cancer clinician has always been cancer biology, whereas in the early days it was more usual for it to be based around pharmacology and the rather empirical design of regimes of chemotherapy. I would rather we had departments of cancer medicine, than departments of oncology. If my example has encouraged a few younger clinicians to take a broader biology-based approach, I would be happy.

Can you give an insight into your main motivations throughout your career?

My guiding principle throughout has been to follow my own instincts as to what I think is important and interesting, and not simply follow the mainstream. I have probably been lucky to get away with it! I have certainly been lucky to have a family who have supported me in sustaining the focus (and taking the risks) that are needed. My approach to cancer has always been to understand the disease better. It seems to me that cancer is a fundamental problem in biology – it is an example of what can happen when the rules that govern development and tissue organisation break down. It’s likely I need another lifetime or two to see the end of this, but I do see the first signs that my two main interests – genetics and the effect of disordered genetics on clonal organisation of tissues – are beginning to converge.

Do you think breakthroughs in medical research are becoming increasingly difficult with the austere funding landscape of many fields?

I don’t like the word ‘breakthrough’. With very unusual exceptions, progress is incremental. A lot of cancer research has become ‘big science’, requiring genome-wide analysis of large numbers of patients, the generation of vast amounts of data, and the computational resources to deal with it. I think it may be difficult for individuals to make their mark in this team science environment. There may also be a danger that we neglect the lone, original scientist whomesses around for 20 years with frog eggs or worms etc., and comes up with really original insights. I think the funding landscape is not so much challenging because of lack of funds, but because funding committees are becoming increasingly risk averse and guided by targets and goals. I think this is a huge mistake. We don’t have the answers yet, and we need every new insight we can get.

Have you encountered any difficulties associated with securing funding, particularly having made the transition from clinical to laboratory work?

I don’t think I have experienced any different difficulties from anyone else in securing funding. Although I was a clinician, my research was very biology-based from the start (in 1980, I won a five-year award from the then Cancer Research Campaign (CRC) to develop methods...
of visualising the mosaic tissue patterns in chimeric mice). In those days, the committees were prepared to make a bet on an individual they thought had promise and let them get on with it. So I think I had a much easier time in my clinical-to-science transition than clinical fellows nowadays, who are subject to much more scrutiny, probably to the detriment of their science. During my career, the main difficulty I had with funding was to get the resources firstly for sample collection for my genetic studies, and then, when we were starting to develop the Cambridge Cancer Centre, for the infrastructure to bridge between the laboratory and the clinic. Funding committees in the past seemed to think sample collection unimportant – whereas it is the limiting factor for most molecular genetic studies in humankind; and until recently, neither the funders nor the Health Service seemed to want to take responsibility for the no man’s land between the lab and the clinic. I think all of this is now changing for the good.

How do you balance bottom-up approaches with the need to maintain focus and structure?

The balance between bottom-up and focus depends on what you are trying to achieve. It is an interesting question for an organisation like Cancer Research UK, where they should position themselves on the spectrum between blue skies discovery and application of what is already known. For the Institute, which I wanted to be as ‘bottom up’ as possible, I also recognised that some structure is necessary. My approach has been to set a framework of priorities, but having done that, and recruited appropriate researchers, to make it clear that they should follow their own best scientific instincts. There should be credit for tackling difficult and important problems in an intelligent way; and we should be prepared for people to fail.

Has the meaning of a career in science changed significantly over the years?

I have been very lucky: I have enjoyed both the clinical and the science parts of my career; in the end, it never seems that the impact has been all that much, but it has been fun. I have a sense from talking to younger clinical colleagues that I was lucky to have started my career at a time of relative freedom. Whether I would be able, or have the courage, to step off the conventional career escalator now in the way that I did in 1980, I am not sure. We have made a lot of progress in cancer in the past 25 years, but there is still plenty we can discover which will probably need us to step off the escalator to achieve it. I hope that the freedom I had is still available to my successors.
FOSTERING FRUITFUL DISCUSSION

A group leader at the Cancer Institute, and head of the Immune regulation and Tumour Immunotherapy group, Dr Sergio Quezada was the ideal candidate to host an enlightening session on cancer immunology and immunotherapy. *International Innovation* caught up with him to ask about developments, as well as his hopes for future research in the face of limitations.
In the context of the session you were invited to host at the NCRI cancer conference – ‘Cancer immunology and immunotherapy: Building on success’ – what recent advances in the field of immunology have boosted the fight against cancer?

Many! The field is buzzing with enthusiasm but, most importantly, there is a large amount of solid data supporting the relevance of approaches that aim at mobilising our own immune system to fight cancer. Some of the most striking advances are in the field of immune-modulatory antibodies. Since 2010, a series of high profile phase III, and also some more recent early trials, have shown the efficacy of antibodies targeting the immune-modulatory receptors CTLA4, PD-1 and PD-L1 against several cancer types including melanoma, lung cancer and renal cell carcinoma. Equally impressive and exciting is the data coming from the field of adoptive cellular therapies and chimeric antigen receptors, which have also shown impressive results against haematological malignancies.

Can you describe the work you are currently conducting?

For a number of years, we have been trying to understand how anti-CTLA-4 antibodies work in vivo and what factors in the tumour microenvironment determine response and resistance to therapy. In this context, we have focused on the impact of this antibody in the fate and function of tumour infiltrating CD4 effector and regulatory T cells. We are currently expanding our findings into other immune-modulatory antibodies targeting additional pathways relevant for anti-tumour immunity such as PD1, OX40 and 4-1BB.

What are some of the key themes to arise from the research presented by the fellow speakers at the NCRI cancer conference session?

While cancer vaccines, T cell therapy immune-modulatory agents such as anti-CTLA-4 monoclonal antibodies can expand effector lymphocytes in the periphery, these cells need to infiltrate, survive and function within an immunosuppressive tumour microenvironment.

IPILIMUMAB: AN EFFECTIVE IMMUNOTHERAPY

Ipilimumab is a treatment for advanced melanoma. It stimulates T cells, which help to fight cancer and disease, in the body’s immune system. CTLA-4, a molecule found on the surface of T cells, switches them off. Ipilimumab blocks CTLA-4, enabling the T cells to remain switched on and attack the cancer cells.

In this session, Professor Schumacher discussed his recent work on the impact of anti-CTLA-4 on tumour-reactive T cells in vivo and Professor Riddell shared his work on chimeric antigen receptor modified T cells, another promising form of immunotherapy. Finally, Professor Fearon offered an insight into key components of the tumour microenvironment limiting in vivo the activity of these new immune-therapeutic modalities.

How do you think success in this field needs to be built upon in order to achieve results that can be successfully applied to cancer treatments? Do you envisage any collaborative ventures arising from this session, for example?

Collaboration is the key to success in this field. It is the only way forward, not only between different types of immunologist, but between immune-biologist, cancer-biologist, clinical oncologists, etc.

Rational combinatorial approaches targeting the multilayered defence mechanism of tumours will only evolve from multidisciplinary collaborative approaches. I hope that this session will foster a fruitful discussion between experts in adoptive cell therapy, immune-modulation and tumour microenvironment.

What are the main types of cancer showing promise for immunology-based treatments?

So far, the focus has been on melanoma, but the field is rapidly expanding into lung cancer, prostate cancer and renal cell carcinoma, among many others.
Working in a niche field of cancer research, is funding ever an issue for you?

Funding is always an issue. We are getting better at studying immune function in patient samples, but the amount of mechanistic information gathered from those studies is still limited. The best way forward in order to design better therapies and more effective combinatorial modalities is through fostering a smooth flow of information between pre-clinical mechanistic studies and clinical trials. Unfortunately, these types of studies are extremely expensive.

Do you feel that this is an area that does not receive enough attention as a viable source of cancer treatments? How widely accepted are immunological methods in the oncological community?

Immunotherapy had a bad reputation for many years. I would think, and hope, that the data generated in the last couple years will be enough to convince us all that immunotherapy is viable and effective against cancer and that more research is needed in this area.

How far away do you think this research is from being applied to humans? How important are animal models?

Immunotherapy is being successfully applied to humans and a big part of these approaches is based on data and experience from animal models. As an example, while CTLA-4 was initially identified in the 80s, it was thought for many years that this CD28 homolog was also a co-stimulatory molecule. Only in 1995, using mouse models of cancer, did Dr James Allison and co-workers demonstrate that antibodies blocking this pathway promoted tumour rejection. These experiments and many others have been instrumental in convincing us of the potential relevance of these pathways in cancer therapy, and promoting the development of effective immunotherapies already in the clinic such as Ipilimumab.

What other interrelated sessions particularly interested you during the conference?

Many! Some of them relate to intra-tumour heterogeneity, tumour microenvironment, mouse models of cancer and the activity of targeted agents against cancer.
What does your role as Science Communications Manager at Cancer Research UK involve?

I see myself as a translator – turning science into English. I translate scientific information about cancer and the achievements of our researchers into plain (but not dumb) language, so that patients, supporters and the general public can understand the challenges we face and the progress we’re making. This covers all kinds of communication, including writing for our website and blog, presenting and producing our monthly podcast, talking directly to supporters and appearing on radio and TV as a spokesperson.

How and when did your passion for science communication develop?

I’ve always loved telling tales. When I was little I used to write long stories, or create plays that my sisters and I would perform. As a teenager I got involved in writing community newsletters, which gave me a bug for reporting and communicating through writing. I have always loved science too, and benefited from some very inspiring teachers at school. The two finally came together during my degree and PhD at Cambridge, when I started writing about science for the university newspaper and became involved with the Naked Scientists radio show. Things just kept building from there, with more opportunities to write and present. After an unspectacular stint as a postdoctoral researcher, I finally left the lab to become a full-time science communicator with Cancer Research UK, and I’ve now been here for more than nine years.

In what way does your previous experience as a research scientist aid your current role?

Working as a research scientist taught me how to understand scientific papers, and the process of research, as well as exposing me to a whole
world of fascinating ideas, people and stories. Working with the media, we often have to make very quick decisions about whether a piece of research is interesting or solid, so being able to quickly grasp the nub of a scientific paper and figure out what it means is vital. And, of course, I like to be able to fully understand the science behind a story if I’m writing or speaking about it, so I can tell it as engagingly and accurately as I can.

How important is Cancer Research UK’s effective communication of research results to the media and general public and what benefits does this bring to the charity?

I’m proud to be part of an incredible communications department that Cancer Research UK has invested in and built up over the years in recognition of the importance of the work we do. We spend a lot of time talking about our researchers and their work in a clear and understandable way, telling stories that supporters and the public hopefully find engaging. And we’re lucky enough to be able to use exciting tools like video, animation, audio and social media to communicate our messages. The bottom line is that all of these actions raise awareness of Cancer Research UK and bring in donations, but I feel that we also do a lot to influence public understanding of cancer and the science behind it.

Can you briefly summarise the scale, distribution and breadth of the research supported by Cancer Research UK?

We’re the largest charitable funder of cancer research in the world – a fact that I still find amazing, given that we receive no government funding for our work. We fund more than 4,000 scientists, doctors and nurses in universities, hospitals and institutes up and down the UK, to the tune of more than £300 million every year. They’re covering all aspects of cancer research, from uncovering the fundamental ‘nuts and bolts’ of cancer cells in the lab, to developing better tests and treatments, to running clinical trials of new therapies, to carrying out large-scale population studies to understand cancer risks and causes. From a science communicator’s point of view, there’s always something exciting to be talking about!

How does the level of funding and quality of output of cancer research in the UK compare with that of other countries?

It has long been known that the UK punches well above its weight when it comes to science, and we fund some of the brightest and best cancer researchers in the world. It’s quite telling that the ‘brain drain’ from the UK to the US isn’t as pronounced as it used to be, with many people now coming the other way. But we can only keep it that way if the UK Government continues to support a strong environment for science and technology, and maintains an open door for smart and talented researchers to come and work here.

Are there any particularly significant recent discoveries that have arisen from research funded by your charity that you would like to mention?

I’ve just been involved in making a documentary looking back on 50 years of fighting cancer – it’s called The Enemy Within and you can watch it for free on Vimeo: http://vimeo.com/54898062. I’m amazed by how far we’ve come in terms of understanding, diagnosing and treating cancer, and how often Cancer Research UK’s work played a key role. It’s hard to pick just a few examples of our recent progress. In the past few years we’ve made important advances in understanding how tumours evolve in the body and how we might be able to track their growth with a simple blood test. We’ve discovered important gene variations that increase the risk of cancer starting in the first place, and have mapped the underlying genetic ‘signatures’ of tumours. Our work also underpinned the development of new drugs like abiraterone (Zytiga), vemurafenib (Zelboraf) and vismodegib (Erivedge), among others.

What are the charity’s current funding priorities? Are there particular themes within the broad scope of cancer research on which your resources are focused?

We have two major projects on the go at the moment – first, our Create the Change campaign, which is fundraising for our share of the new Francis Crick Institute in London. When it opens in 2015, the Crick will be the biggest biomedical research facility in Europe under one roof, bringing together scientists across many disciplines and diseases to come up with breakthroughs for human health. Second, our More Tomorrows campaign is raising money for the new Manchester Cancer Research Centre (MCRC), which will help to bring the discoveries made by our scientists directly to cancer patients as quickly as possible. More broadly, our research strategy focuses on hard-to-treat cancers, such as lung, pancreatic and oesophageal, as well as diagnosing cancer earlier, and using genetic data to improve treatment.
Do you work with any international partners? How does this collaboration help advance the global fight against cancer?

We have several major international partnerships – charitable, academic and commercial – as well as the smaller collaborations that spring up between individuals, labs and institutes around the world. We’re part of the International Cancer Genome Consortium (ICGC), which is mapping the faulty genes in thousands of tumours from 50 different cancer types. This enormous project is divided up among 65 teams in 15 countries, and we’re funding the prostate and oesophageal cancer projects. Additionally, we set up the International Rare Cancers Initiative, which aims to recruit patients from across Europe to take part in clinical trials, as it’s impossible to get meaningful numbers in one country alone.

As a research organisation, what steps do you take to ensure the rapid and effective application of your research results from bench to bedside?

Translating research discoveries into benefits for patients is at the heart of what we do, and we fund research along the whole journey from bench to bedside. We have a long tradition of supporting some of the very best fundamental lab research, but it’s very important to support translational lab research – developing promising therapies into treatments that can be given to patients – and funding first-in-man clinical trials of new agents. Much of the credit for this goes to our Drug Development Office, which has taken over 100 new drugs into early-stage clinical trials.

Looking forward, how does Cancer Research UK plan to adapt to the current funding climate to maintain and maximise the effectiveness of its cancer research funding?

Fundraising during a global recession is tough, but we’re grateful that so many of our supporters are continuing to donate to our lifesaving work. We’re currently putting together our new five-year research strategy, which will launch in 2014. We’re looking at different ways to fund research, in order to encourage innovation and support early-career scientists, as well as investing in major, large-scale projects that could make a significant impact in the future. But all of this will be underpinned by our usual stringent funding processes, which make sure we only fund the very best research that will make a difference to patients and help bring forward the day when cancers are cured.

International Cancer Genome Consortium

Launched in 2008, the goal of the International Cancer Genome Consortium (ICGC) is to coordinate large-scale cancer genome studies in tumours from 50 cancer types and/or subtypes that are of the greatest importance worldwide.

A voluntary scientific organisation, ICGC provides a forum for collaboration among the world’s leading cancer and genomic researchers.

International Rare Cancers Initiative

Endorsed by Professor Dame Sally Davies (Chief Medical Officer for England, Director General of Research and Development, and Chief Scientific Adviser for the Department of Health and NHS) to support the development of international clinical trials for rare cancers, the International Rare Cancers Initiative (IRCI) is a strategic collaboration between Cancer Research UK, the UK National Institute for Health Research Cancer Research Network (NCRN), the US National Cancer Institute (NCI), the European Organisation for Research and Treatment of Cancer (EORTC) and the French National Institute of Cancer (INCa).
OVERCOMING CHALLENGES

In an enlightening talk at the NCRI cancer conference, plenary speaker Professor Nazneen Rahman discussed genetic predisposition to cancer. Here, in an exclusive interview, she emphasises the equal importance she accords to research and clinical work, shares her thoughts on the necessity of making genome-related data accessible and reveals some of her team’s most exciting studies underway in the quest to improve the clinical cancer landscape.
How did you come to occupy the dual positions of Head of the Cancer Genetics Service at the Royal Marsden Hospital and Head of the Division of Genetics and Epidemiology at the Institute of Cancer Research (ICR)?

I qualified in Medicine and trained as Medical Geneticist at Oxford, London and Cardiff. I took some time out from the clinic to do my PhD with Mike Stratton when he was at the ICR, just as he was discovering BRCA2 and was smitten by cancer genetics, particularly how the research and clinical aspects are so closely aligned.

Research and clinical work have, for me, always been two equally important parts of my professional life. When I meet with patients, my research knowledge helps me to provide information that is based on the best and most up-to-date scientific knowledge. When I am undertaking research, I always keep in mind the need to deliver impact for patient care, which greatly influences our research strategies.

Have you made any significant recent discoveries that you can mention through your two research foci, breast cancer genetics and childhood cancer genetics? Why did you choose these two themes initially?

We have recently identified two new genes that cause childhood cancers. We are currently completing those studies and hope to publish the results within the next few months.

It was chance that led me to these areas; when I started my PhD there were projects available in these areas that I started working on. In fact, though I wasn’t aware of it at the time, there are a lot of links between them. One of the first cancer predisposition genes that I identified when I set up my own team, PALB2, causes both breast cancer and childhood cancer. We made the discoveries largely separately and ended up with two back-to-back papers in Nature Genetics.

At what stage are you in completing breast cancer exome analyses in 3,000 participants – the largest experiment of its kind in breast cancer?

We are a few weeks away from completing the exome sequencing, which includes 2,000 individuals with breast cancer and 1,000 controls, and are performing analyses of the data.

THE THREE MAIN AREAS OF THE MCG:

- Development of a test that rapidly and cost-effectively sequences cancer predisposition genes at high throughput and large volume
- Development of processes that analyse and interpret the sequencing data to provide clinical information to guide the management of patients and their relatives
- Development of a flexible, practical, robust patient-centred system that allows increased capacity and equity of access to genetic testing

We will be updating on progress of the project next year, hopefully with some positive findings!

Could you also offer a glimpse into another of your avenues of investigation, the Mainstreaming Cancer Genetics (MCG) programme, which seeks to translate germline genetic testing of cancer genes into routine cancer patient care?

The MCG programme aspires to develop the necessary lab, analytical and clinical infrastructure that will allow cancer predisposition gene testing to be available to anyone who might benefit.

Next-generation sequencing and genome-wide association studies have already transformed health and medical research. How do you foresee these technologies shaping clinical practice in the future?

These technologies deliver new insights into cancer predisposition mechanisms that give an explanation for why individuals develop cancer, can be used to optimise cancer treatment and identify individuals before they get cancer so that screening and preventative measures can be implemented.

In the future I anticipate that this type of information will be routinely integrated into clinical trials and clinical practice. There are challenges, particularly in relation to correctly interpreting and integrating the information, and it will be important that the data generated is shared and accessible for research.

Is it becoming increasingly important for medical researchers to work in closer collaboration with computer scientists,
THE MAINSTREAMING CANCER GENETICS PROGRAMME

USING NOVEL TECHNOLOGIES to develop a single test able to more rapidly and inexpensively analyse all genetic information relevant to cancer, the Programme’s ultimate goal is to incorporate genetic testing into routine cancer patient care.

It is led by the Institute of Cancer Research in partnership with the Royal Marsden NHS Foundation Trust and is funded by the Wellcome Trust. It will run for three years: 2013-16.

WWW.ICR.AC.UK

PROFESSOR RAHMAN gave a keynote lecture at the conference on cancer predisposition genes (CPGs). In addition to discussing her team’s current search for predisposition genes in families affected by multiple cases of breast and ovarian cancer, Rahman discussed the potential benefits CPGs could bring to the future treatment of breast cancer, such as improved risk prediction and diagnosis as well as bespoke therapies.

When I am undertaking research, I always keep in mind the need to deliver impact for patient care, which greatly influences our research strategies.