ICR The Institute of Cancer Research

search

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Professor Louis Chesler

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Our mission is to make the discoveries that defeat cancer.

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Editorial

These past months have been hugely challenging for all of us, but the coronavirus pandemic has taken a particularly heavy toll on cancer patients and their loved ones. Coronavirus has caused delays in diagnosis, and disruption to surgery and other aspects of care – as well as pausing vital research into new treatments.

The ICR's own modelling has shown that these delays could potentially lead to thousands of additional cancer deaths. This is why it's more important than ever that we get our research back up-and-running again – and I am pleased to be able to tell you that our labs have now fully reopened.

In this edition of Search, we wanted to share with you the progress we are making against cancer, despite the recent setbacks. On pages 14-15 we look at how Professor Louis Chesler is bringing precision medicine to children with cancer. And on pages 12-13 we introduce several of our recently recruited researchers, who bring with them new promise and hope for cancer patients.

I also want to thank you, our supporters, for your continued loyalty and generosity. Over these difficult months, we have been very touched by the huge number of kind messages and donations we have received. Our kick-start appeal has had a fantastic response, which will help us make up for time lost to the pandemic – you can read more on page 6.

Reopening our labs and restarting our research is a significant moment for us and the communities we serve. We are more determined than ever to push forward to make the discoveries that defeat cancer, and I look forward to sharing more positive news with you in the coming months. Thank you again for your support.

Lara Jukes
Director of Development
The Institute of Cancer Research

Lung cancer in non-smokers likely to respond differently to treatment

Research co-led by Professor Jyoti Choudhary has shown that lung cancer could be two distinct diseases in smokers and non-smokers that respond differently to treatment.

In the UK around 10-15% of people with lung cancer have never smoked, but much of our knowledge of the disease comes from studies in smokers.

In the largest ever study of non-smokers with lung cancer, researchers found a range of changes to genes and proteins which varied depending on a patient's age or sex.

These differences could affect the response to targeted drugs in smokers and non-smokers, as well as in men and women, and could help doctors identify patients more likely to respond to particular treatments.

Professor Jyoti Choudhary

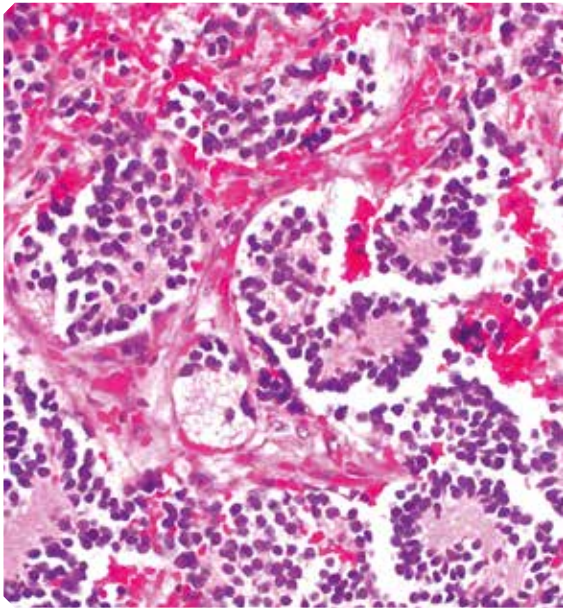
MRI scans for heart disease could also pick out aggressive cancers in children

Research led by Dr Yann Jamin suggests that a type of MRI scan used for people with heart disease could detect aggressive cancer in children and spot if treatment is working.

The MRI technique called 'T1-mapping' can measure muscle damage in the heart, but it could also pick out children with high-risk forms of the nerve tissue cancer neuroblastoma.

The team at the ICR scanned neuroblastoma cancers using T1-mapping, and revealed 'hotspots' of aggressive cancer cells that spread and grow faster.

Our researchers will assess the benefits of T1-mapping as part of a clinical study of children with neuroblastoma.



Neuroblastoma of the adrenal gland.
Credit: Ed Uthman. CC BY-NC 2.0

Did you know...?

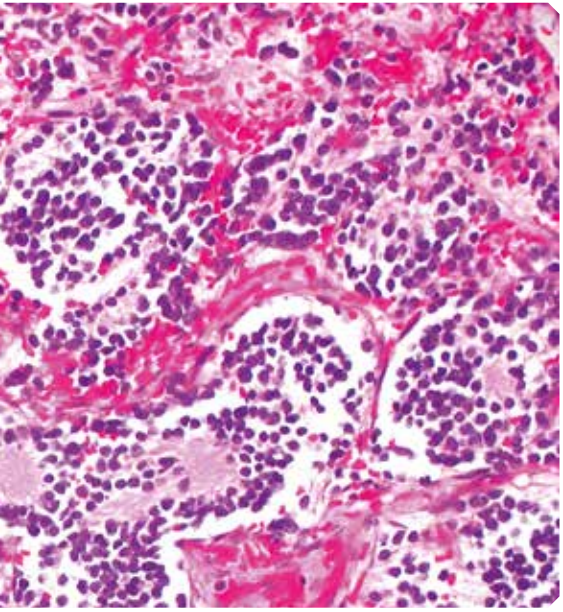
One large dose of radiation each week is just as safe overall as daily radiotherapy

Weekly radiotherapy for breast cancer as safe as daily treatment

Treating patients with larger doses of radiotherapy once a week following breast cancer surgery is as safe as daily, lower-dose radiotherapy over the same five-week period, a long-term study led by our researchers has shown.

The findings have already supported a change in clinical practice to cut hospital visits for women with breast cancer, relieving pressures on the NHS and more recently helping to keep patients safe during the coronavirus pandemic.

The 10-year results of the FAST trial, led by the ICR's Professor Judith Bliss and Professor John Yarnold, showed that treatment with one large dose each week and less radiation overall is just as safe in the long-term as daily radiotherapy, with side effects remaining low a decade later.



New drug discovered could treat multiple cancer types

Our researchers have discovered a new drug that could be used to treat a range of cancer types, including some blood cancers and solid tumours.

The drug, called fadraciclib, was jointly discovered by a team led by Professor Paul Workman, Chief Executive of the ICR, in collaboration with the company Cyclacel.

Fadraciclib is already being tested in early clinical trials targeting blood cancers like leukaemia. The drug targets two cancer-driving proteins from a family called CDK, which help cancer cells to survive and develop drug resistance.

Fadraciclib is one of 20 drug candidates discovered by our scientists since 2005, of which 10 have entered clinical trials – making us the world's most successful academic centre at cancer drug discovery.

ICR's new world-class drug discovery research centre completed

We are delighted to announce that construction of our new Centre for Cancer Drug Discovery on our Sutton campus is now complete. Our scientists will be moving in this autumn to commence work on the world's first 'Darwinian' drug discovery programme.

Nearly 300 researchers will work in the centre, dedicated to improving our understanding of how cancer evolves to resist treatment and to designing new treatment strategies, so that more patients can live longer, better lives and even be cured.

We would like to thank everyone who has so generously contributed to our capital appeal and helped us to bring this £75m project to fruition. This includes the thousands of you who kindly supported our 2019 Christmas appeal. We look forward to keeping you updated on the discoveries that our scientists will be able to make in this wonderful new facility.

The new Centre for Cancer Drug Discovery at our Sutton site.

Kick-start appeal receives incredible support

We have been overwhelmed by the response to our kick-start fundraising appeal and are hugely grateful to everyone who has donated and shared our message online.

In July, we launched the kick-start appeal to help us make up for the time we lost during the coronavirus lockdown – and to accelerate our research as our scientists began to return to their laboratories.

So far more than 5,000 people have contributed more than £180,000, and the appeal is on track to be one of our most successful ever.

Dr Rob van Montfort, a scientist featured in the appeal who works on how new drugs bind to their targets, says: "On behalf of my colleagues, I want to let you know how heartened we are by your support during these difficult times. It is incredibly motivating to know that you are behind us, willing us to succeed in our work. We won't let you down."

There is still time to donate to the appeal, and you can do so at icr.ac.uk/kickstart

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So far, you have helped us raise:

£180,000

Virtual Terry Fox Run launches in the UK to support the ICR

In September, runners across the UK joined a virtual, global 'Marathon of Hope' to raise money for cancer research charities including the ICR, in memory of Canadian hero Terry Fox.

Terry lost his leg to osteogenic sarcoma, a rare bone cancer. He made headlines 40 years ago when he ran 3,339 miles over 143 days on one leg to raise awareness and money for cancer research.

His dream to run across Canada was cut short after his cancer spread to his lungs and he died aged 22. Today, Terry's Marathon of Hope continues to inspire people all over the world to raise money for cancer research.

Neil Johnson, Chairman of the UK Terry Fox Association, said: "We are excited to have partnered with the ICR. Together we join forces to inspire and educate everyone in the UK about Terry Fox's legacy and mission to raise money for cancer research."

The fundraisers helping us finish cancer

Sports events around the world have been put on hold because of the coronavirus crisis. Despite this, #teamICR have come together to support each other, adapt their training and focus on what really matters to them.

They've even gone for a run together – virtually. Sticking to their own locales, many of them went out pounding the pavement solo in their ICR vests, sharing updates and encouraging each other online afterwards with pictures from their run. Thank you #teamICR!

David Griffiths is the ICR head coach. He supports the ICR runners every step of the way, and motivates the team to stay positive and dedicated, no matter what their ability.

"I ran 10 marathons and a 72-mile ultra-marathon across the country in 2017 for the ICR, as my wife was fighting cancer. I wanted to raise as much money as possible and doing something that extreme raised around £9,000. The ICR backed me all the way and I vowed I would run a 100-mile race in their honour – so my next challenge will be to keep a promise made to the greatest charity in the world."

Penguins Against Cancer: The Fergus Scholefield Cancer Research Fund

Dr Sally George receives the 2019 Fergus Fund Research Bursary for her childhood cancer research.

Earlier this year, the charity Penguins Against Cancer awarded their Fergus Fund research bursary to Dr Sally George, for her research into the childhood cancer neuroblastoma.

The Penguins Against Cancer Fergus Fund for Cancer Research was set up in 2016, in memory of Fergus Scholefield who died of a brain tumour aged two. It provides bursaries to support researchers in childhood cancer to keep pushing the boundaries, so that Fergus' short life continues to inspire people for many years to come.

Dr George is a Clinical Research Fellow in our Paediatric Tumour Biology Team and a Consultant Paediatric Oncologist at The Royal Marsden. Her research is identifying new ways to target certain gene mutations that cause neuroblastoma – one of the most common solid tumours affecting babies and young children, which remains very difficult to treat.

Penguins Against Cancer was set up in 2013 simply to combat cancer, and it has been supporting our childhood cancer research since 2018. The founders were drawn from Guy's Hospital Penguins, the oldest team in the oldest rugby club in the world. But now its members come from a wide range of ages, backgrounds and professions.

The charity has so far raised and distributed more than £170,000 in grants to support cancer research, treatment and hospices, and thanks to the altruism of its volunteer members has zero running costs – so every pound raised goes towards fighting cancer. To find out more, visit www.penguinsagainstcancer.org.uk.

Fergus Scholefield (right) with his brother, Chester.

> "Children deserve the very best cancer treatments, so they can live as long as possible and as well as possible. We desperately need better, more intelligently designed treatments which can give children longer with their families with fewer side effects."
> **Dr Sally George**

Events – Your Way

The coronavirus pandemic has led to many major fundraising events across the country being cancelled, and there are very few events yet confirmed for 2021.

In the meantime, why not organise your own fundraising event – in a socially-distanced way of course! You could put those new lockdown hobbies to use, and organise a bake or craft sale. If you are looking for a more active challenge, take inspiration from ICR fundraiser Frankie Simpkins, who cycled her own 'Wiltshire 100' – 100 miles around Wiltshire – on 16 August, the day the Prudential RideLondon was meant to happen.

Rosetrees Trust supports our research for more than 20 years

Cancer research is a long-term endeavour. We are very grateful to the Rosetrees Trust for supporting multiple projects at the ICR for more than 20 years.

Rosetrees Trust was created by Nat and Teresa Rosenbaum, and its evolution has been guided over the years by their son Richard. The Trust has always supported cutting-edge medical research in many disease types. It has often provided 'pump-priming' funding, which allows researchers to conduct a smaller research project to see whether an area of research is worth pursuing, opening the door to larger, further-reaching projects. More recently the Trust has shifted its focus to support more translational projects, closer to the clinic.

Rosetrees funding has contributed to a range of our research projects in more than 10 different cancer types, using a wide variety of research approaches and technologies. The Trust is currently supporting – or about to support – seven ICR team leaders.

Its support over so many years has contributed to advances in our knowledge of cancer. Over the last 10 years, Professor Kevin Harrington, who leads our Targeted Therapy team, has benefitted from Rosetrees funding for multiple long-term projects. Professor Harrington studies the use of biologically targeted agents, such as viruses, antibodies and small molecules, in combination with treatments such as radiotherapy and chemotherapy, to target cancer cells selectively. Rosetrees funding is helping Professor Harrington and his team to make advances in new viral immunotherapies for head and neck cancer and melanoma, and allowing them to investigate new drugs that make tumours more sensitive to radiotherapy.

> “Rosetrees Trust has made great contributions to numerous advances in my labs, many of which have been translated directly to the clinic. Their continued support over the years has had a hugely positive impact on my team's research. Their shared commitment to investing in the next generation of cancer researchers has also helped to boost the careers of many students and young scientists in my team.
>
> **Professor Kevin Harrington**

Rosetrees is now supporting a new project in prostate cancer, led by Professor Ros Eeles. The funding will help Professor Eeles and her team to devise a new test that identifies genetic changes in men at high risk of developing prostate cancer. The test could also be used in men with prostate cancer that is not responding to treatment, to help identify other treatments that might work for them.

Alternatively, if you are celebrating a birthday, wedding, anniversary or retirement, you could ask for donations to the ICR instead of gifts – which is a wonderful way to celebrate your special occasion while helping to improve the lives of cancer patients across the world.

If you'd like to discuss a fundraising idea, or request materials for your event, please get in touch with us at sports@icr.ac.uk.

Dr Alejandra Bruna

Dr Alejandra Bruna recently joined us as Team Leader in Preclinical Modelling of Paediatric Cancer Evolution. In her new role, she aims to understand how cancer adapts to its environment and evolves resistance to treatment. Her research focuses on taking samples of a patient's cancer to accurately recreate a model of the tumour in the lab, opening up new opportunities for individualised, precision medicine in children's cancers.

Joined the ICR
2020

Specialist subject
Using models that mimic the way cancer behaves in patients to understand how cancer evolves and responds to treatment.

Interests
Dr Bruna taught contemporary dance for many years. She is also a keen rock climber and alpine mountaineer.

> "By improving our understanding of the biology of aggressive children's cancers and combining this with our knowledge of genomics and evolution, we aim to create kinder, smarter treatments.

Children who die from cancer often do so because their disease has evolved to become resistant to treatment. Despite encouragingly high overall survival rates for children with cancer, tumours that come back are typically difficult to treat.

Dr Bruna aims to improve our knowledge of cancer evolution, in order to overcome this major barrier to being able to cure more patients. Her team uses complex samples grown in the laboratory that closely resemble the originating tumour in a patient, to better understand the biology of the disease. These improved laboratory tools are at the frontline of personalised cancer medicine and can be used as 'avatars' to test drug responses and evolutionary trajectories in a given patient's tumour.

This innovative area, in which she was a pioneer in her previous role at the Cancer Research UK Cambridge Institute, brings the research closer to the clinic by providing the potential to anticipate the response to treatment for individual patients and so accelerate the adoption of personalised medicine for children with cancer.

At the ICR, she'll be translating her expertise in developing these avatar models in breast cancer, into paediatric oncology, where the challenge is even greater because of the diverse nature of the disease.

Tracking how paediatric cancers evolve with treatment will help the team determine why some children respond well to therapy, while others become resistant and eventually relapse. This knowledge could help inform doctors' decision making for individual patients and open up new avenues for treatment. The ultimate aim is to refine and redesign treatment strategies for paediatric cancer, so more children can survive their cancer and live long, healthy lives.

Dr Bruna was one of the faces of our recent kick-start appeal, which has raised over £180,000 to help get our research up-and-running again following the coronavirus pandemic.

Meet our new recruits

We have been busy recruiting new research experts to strengthen and expand our work in key strategic areas. We are pleased to welcome a selection of our new Team Leaders here.

Dr Marco Bezzi
Team Leader in Tumour Functional Heterogeneity

Dr Marco Bezzi joins us in the Division of Molecular Pathology from Harvard University in the US, where his research focused on the genetics of prostate cancer and how prostate tumours interact with the surrounding healthy tissue.

Here, he is working to uncover new targets in prostate cancer in order to find ways of treating the disease with a combination of personalised medicine and immunotherapy. His team will carry out experiments that model how cancers behave and evolve as part of their surrounding ecosystem, with the aim of opening up new ways of treating the disease.

> “My lab is part of the Centre for Evolution and Cancer, located in the new Centre for Cancer Drug Discovery. Innovative analytic tools combined with mathematical modelling and state-of-the-art drug discovery capabilities will provide fertile ground for collaborations to tackle cancer drug resistance.”

Dr Gary Newton
Team Leader in Medicinal Chemistry

Dr Gary Newton joins us as a new Team Leader in the Division of Cancer Therapeutics, bringing extensive expertise across all phases of drug discovery from his career in biotech and contract research organisations, where he led teams to discover several preclinical candidates.

At the ICR, his team will design and create novel molecules through collaborative research with internal and external partners, in order to validate novel drug targets and develop new, more effective and safer cancer therapeutics.

> “I’m looking forward to working on novel drug targets and being able to develop my own research strands alongside existing drug discovery programmes.”

Dr Claudio Alfieri
Team Leader in Molecular Mechanisms of Cell Cycle Regulation

Dr Claudio Alfieri joins us from the Medical Research Council Laboratory of Molecular Biology in Cambridge as a new Team Leader in the Division of Structural Biology. His research focuses on the complex biology controlling the cell cycle – the fundamental process by which cells grow, copy their DNA and divide. Problems with regulation of the cell cycle are often what lead cancer cells to divide uncontrollably.

Dr Alfieri will apply his knowledge of the cell cycle to understand how ovarian cancers can resist the effects of treatments aimed at killing cancer cells or stopping them from growing. He is aiming to find new clues for the design of more effective cancer drugs.

> “It is fantastic to have the opportunity of working in a place where structural biology can promptly guide the design of new anti-cancer drugs.”

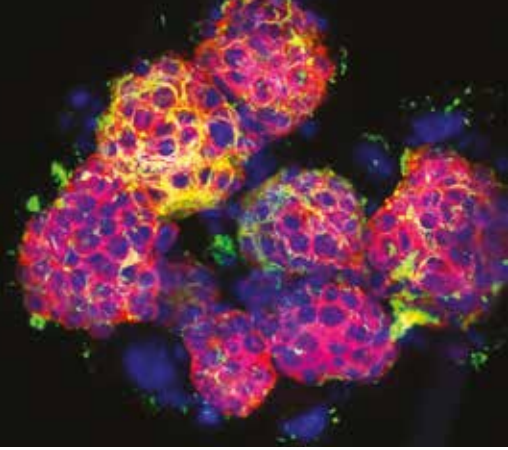
Professor James O’Connor
Professor of Quantitative Biomedical Imaging

Professor James O’Connor joins us from the University of Manchester as a Team Leader in imaging science. An international leader in his field, he develops and validates imaging ‘biomarkers’ – types of measurement made using scans which give key information about how a tumour is structured or is behaving.

Part of this work employs mathematical modelling of data to optimise use of imaging in drug development and in evaluating response to existing treatments. The overall goal of his work is to turn promising imaging discoveries into validated tools that can alter clinical practice and benefit patients.

> “I am excited to be part of a team who will accelerate the translation of novel imaging into clinical practice to improve decision making for patients.”

Bringing precision medicine to children with cancer



Professor Louis Chesler is Head of the new Centre for Paediatric Experimental Medicine at the ICR – and leads an ambitious team of researchers who are investigating new targeted treatments that could make a real difference for children with cancer.

In the UK, 1,800 children aged 14 or under are diagnosed with cancer each year. Cancer in children is less well understood than other cancers, mainly because this group of cancers are relatively rare and diverse.

A driving area of focus for Professor Chesler's team is ensuring that children with cancer can benefit from precision medicines in the same way as adults. To achieve this, his team is working closely together with our network of passionate family-led charity partners, who have directly experienced the devastating impact of childhood cancer and whose fundraising efforts are leading to unprecedented insights into these diseases.

The new centre is driven by a real 'bench to bedside' approach – focusing on bringing academic discoveries forward to change clinical practice as quickly as possible and advancing the treatment options available for children with cancer.

> "In the past, children have had to wait much longer than adults to get access to drugs which could save their lives

Professor Louis Chesler

Offering new hope

A new cancer drug, fadraciclib, is a great example of the team's research in action. Discovered at the ICR, fadraciclib has already shown promise in treating a range of cancer types, including some blood cancers and solid tumours. The drug is now being tested in early clinical trials targeting blood cancers like leukaemia.

Fadraciclib targets two proteins from the cyclin-dependent kinase (CDK) family, which help cancer cells to survive and develop resistance to drug treatment. Professor Chesler's lab spotted the promise the drug's mechanism could have for neuroblastoma – a type of cancer that mostly affects babies and young children.

> We have shown that we have the scientific knowledge and technology to get children access to state-of-the-art testing and treatments

Neuroblastoma is often driven by high levels of MYCN activity. Inhibiting the two cancer-driving proteins from the CDK family can play an important part in stopping over-zealous activity from the MYCN gene, causing cancer cells to die.

Professor Chesler's team was able to show in early tests in the lab that fadraciclib was highly effective in arresting cancer cell growth in neuroblastoma. These promising initial results have led to funding for a new international clinical trial to go ahead for children with neuroblastoma.

The speed at which a clinical trial of this novel drug has reached children exemplifies the success of our approach in collaborating across different areas of drug discovery and clinical medicine.

Professor Chesler said: "In the past, children have had to wait much longer than adults to get access to drugs which could save their lives. Our centre is leading the way in showing this doesn't have to be the case, and that we can take new developments in science straight to young patients and their families."

Increasing access to targeted medicines

Professor Chesler is also leading efforts to ensure new drugs are available for young patients on a national scale, by improving our ability to match each child diagnosed with cancer in the UK to the latest targeted drugs.

He has established an ambitious national programme of genome sequencing – guided by a gene panel test which his team developed thanks to generous funding from our family charity partners – to increase treatment of children on precision medicine cancer trials.

The gene panel test enables scientists to read the DNA sequence of 91 genes that play a key role in tumours' growth and spread. Of 223 children's tumour biopsies tested around the UK last year, over half had mutations that could potentially be treated by adult cancer drugs.

In addition, the team has started to test for cancer gene mutations in DNA released from tumours into the bloodstream. Blood tests are able to detect more mutations, more effectively, than traditional tumour biopsies – while offering a less stressful experience for young patients. In future work, the team will use repeated blood tests to monitor how tumours evolve in response to therapies.

Professor Chesler is passionate about doing better for young patients. He says: "We have shown that we have the scientific knowledge and technology to get children access to state-of-the-art testing and treatments. Our centre is leading the way to deliver a better future for young patients and their families."

Our family charity partner, Christopher's Smile, has raised more than £1 million in memory of Christopher Capel, who died from medulloblastoma in 2008. The tireless fundraising efforts of Kevin and Karen Capel have played a vital role in advancing Professor Chesler's research.

For more information on all our research into childhood cancers, visit icr.ac.uk/childhoodcancer

When the damage is done – how ICR scientists target cancer's DNA weaknesses

Damage to DNA is the basic cause of cancer. As you read this, many of your cells are producing new DNA, and some of that DNA will contain errors in its sequence, as the cell makes small mistakes in production.

Your cells are very good at spotting these errors and dealing with them swiftly – by repairing the damage with specific proteins that can fix the mistakes, or by pushing a pre-programmed 'self-destruct' button if the error is too serious to be rectified.

Sometimes errors in DNA slip through the net, and cancer can develop as cells replicate uncontrollably. While DNA damage is a fundamental cause of cancer, it also represents a fundamental weakness within cancer cells – which our researchers are looking to exploit in the development of cancer treatments.

Exploiting cancer's weaknesses

Our scientists work hard to try to turn cancer's strengths – the features of cancer that make cells divide quickly and resist the effects of treatments – into weaknesses that can be targeted by new drugs.

We have found that in cancers that have a damaged system to repair their DNA, cells can become particularly reliant on another, separate repair process – and that this process could be an excellent target for new cancer drugs.

Our researchers learned how to genetically target a drug called olaparib which belongs to a class of precision medicines called PARP inhibitors.

Olaparib works by blocking the function of the PARP DNA repair proteins in order to selectively target and kill cancer cells which have faults in other parts of their DNA repair machinery. The drug's development was underpinned by more than 20 years of research at the ICR across many teams of scientists and clinicians.

This pioneering and wide-ranging programme of research began when our former Chief Executive Professor Alan Ashworth and colleagues from across the ICR discovered the BRCA2 gene – one of two crucially important cancer genes with a key role in repairing DNA.

Our researchers then found that cancers which arise from faulty BRCA1 or BRCA2 genes are vulnerable to olaparib. The drug went on to be approved for use in patients with ovarian and breast cancer who had inherited faults in the BRCA genes, and this year olaparib gained FDA approval in the US for use in prostate cancer.

Professor Johann de Bono, Professor of Experimental Cancer Medicine at the ICR and Consultant Medical Oncologist at The Royal Marsden, said: "Olaparib has now become one of the first precision medicines for prostate cancer. It is the perfect example of how understanding the genetics of a patient and their cancer can be used to target the disease's Achilles heel and personalise treatment. This is the fruit of so much hard work by scientists at the ICR over several decades."

New horizons in drug discovery

We are also working on other forms of treatment that target DNA repair in order to kill vulnerable cancer cells. A recent phase I clinical trial, led by Professor de Bono, tested a drug called berzosertib, the first in a new family of drugs blocking a key DNA repair protein called ATR.

Incredibly, over half of patients given berzosertib saw their cancer stop growing – even though the patients were very sick with advanced cancer. Some patients were given the drug on its own, while others were given it in combination with chemotherapy – which had an even greater impact on their tumours.

Developing promising new drugs requires a deep understanding of the basic biology underpinning the cancer type at hand, and a multidisciplinary approach to apply that knowledge to the treatment of patients.

With our world-class scientific expertise and long track record of translating advances into the clinic, we are in the ideal position to turn the promise of targeting DNA repair into exciting new cancer treatments.

“”

Olaparib has now become one of the first precision medicines for prostate cancer. It is the perfect example of how understanding the genetics of a patient and their cancer can be used to target the disease’s Achilles heel and personalise treatment.

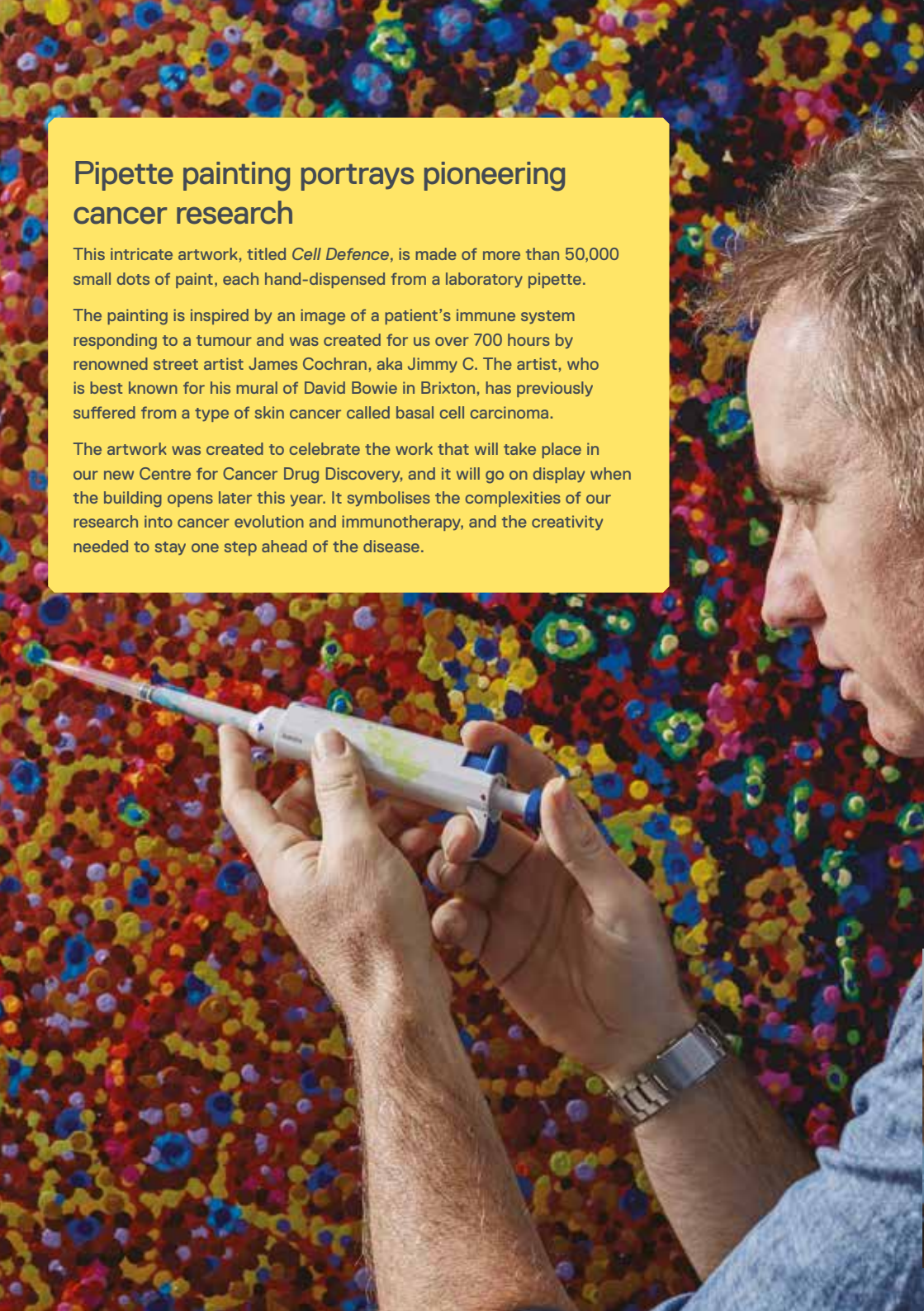
Professor Johann de Bono

Pipette painting portrays pioneering cancer research

This intricate artwork, titled *Cell Defence*, is made of more than 50,000 small dots of paint, each hand-dispensed from a laboratory pipette.

The painting is inspired by an image of a patient's immune system responding to a tumour and was created for us over 700 hours by renowned street artist James Cochran, aka Jimmy C. The artist, who is best known for his mural of David Bowie in Brixton, has previously suffered from a type of skin cancer called basal cell carcinoma.

The artwork was created to celebrate the work that will take place in our new Centre for Cancer Drug Discovery, and it will go on display when the building opens later this year. It symbolises the complexities of our research into cancer evolution and immunotherapy, and the creativity needed to stay one step ahead of the disease.



“I’m so lucky there’s a treatment that works for me”

Our scientists have helped discover and develop many targeted treatments that are enabling cancer patients to live longer and with a better quality of life.

Sally Steadman-South was one of the faces of our recent kick-start fundraising appeal to make up for lost research hours during the coronavirus crisis. She told us what these research advances have meant for her and her family.

“I was diagnosed with melanoma in 2014, aged 35. The tumour was a low stage so the doctors reassured me I had nothing to worry about, and I had surgery to remove it. Although it was a difficult recovery, the important thing was the tumour had gone and I could get back to life with my husband, Chris, and two young children, Ted and Florence.

“But a year later, we learned the cancer had spread. I underwent further treatment, but the cancer kept returning. At the age of 37, I was diagnosed with stage 4 melanoma. Immunotherapy was unsuccessful, so I was put on targeted drugs called dabrafenib – a treatment underpinned by the ICR’s science – and trametinib.

“Incredibly, two years later, my scans are still showing no evidence of disease.

“I’m so lucky there’s a treatment that works for me, and the fact I feel healthy and well is such a gift. The knowledge that you have cancer never leaves you, but these drugs allow me to live almost as normal.

“We have been trying to travel as much as we can now. It’s really important for Chris and I to see the world with the kids – Ted is now 12 and Flo is 9 – and make incredible memories we hope they’ll never forget.

“But ultimately, like many other cancer patients, it’s the ‘everyday’ memories I really want to make. I want to be here for school plays and football matches, for trips to the park and birthday parties.

“I want to see my children grow into adults.

“Every day is valuable. My family and I still have more memories to make together, and we rely on researchers at the ICR to make this possible.”

Sally with her husband, Chris, and children, Ted and Florence

> “We don't know how much time we have left together, and that's why we're making incredible memories.

www.icr.ac.uk