ICR The Institute of Cancer Research

Your cancer research

careers guide

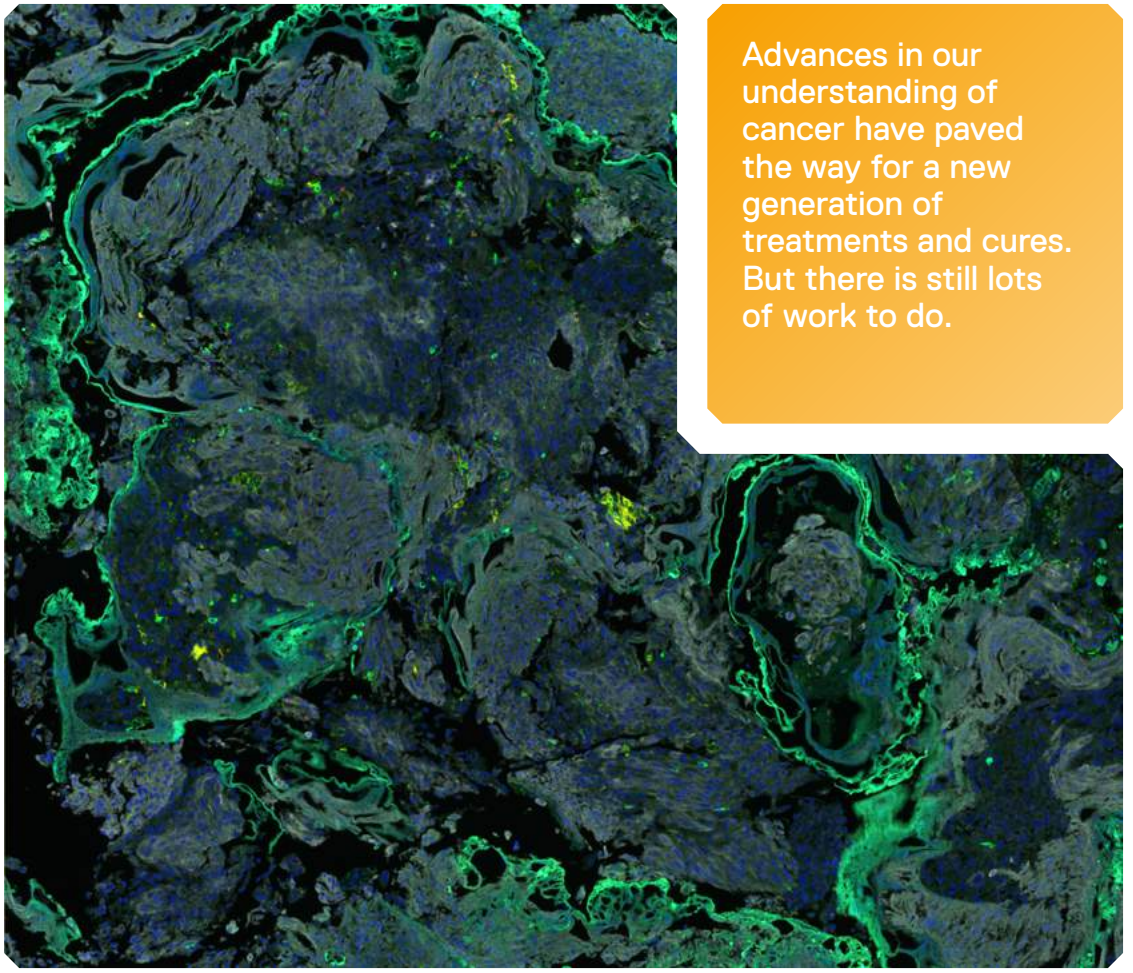
ICR.ac.uk

What is cancer research?

Cancer research is a broad term that we use to cover everything from understanding the disease better, to developing new drugs, and finding kinder treatments for patients. Building knowledge about how cancer develops, potential causes, and how cancer interacts in the body all help us to grow a picture about the disease. This is then used to create new cancer tests and treatments that will improve and save lives.

There are lots of different subjects and careers that contribute to cancer research which makes it a great option for people with lots of different skills and interests.

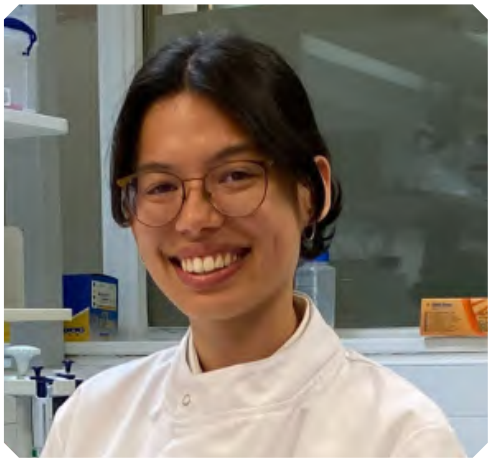
Here at The Institute of Cancer Research, London, we need chemists, biologists, physicists, computer scientists, statisticians, medical doctors, and more to work together to make the discoveries that defeat cancer.



Advances in our understanding of cancer have paved the way for a new generation of treatments and cures. But there is still lots of work to do.

"Cancer research is so varied, it's very helpful to have a diverse range of backgrounds. You should 100 per cent go for it."

Giulia Zavagno
Postdoctoral Training Fellow



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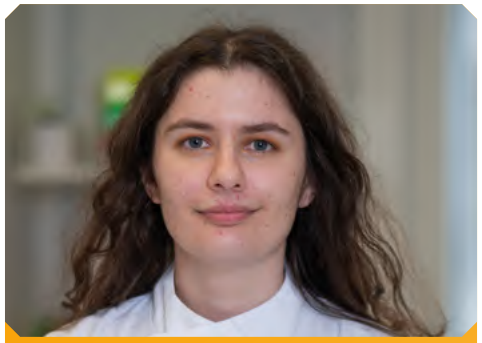
Since 2005 we have discovered 21 cancer drug candidates

Why cancer research?

You could help save lives, make a positive change and give people more time. There are lots of reasons why cancer research is an interesting route for your future. Here are some of the reasons our researchers and scientists work here:

"Meeting families that have been affected by cancer and hearing their story can be incredibly emotional, but their courage and drive to defeat this disease is truly inspiring."

Rita Pereira, PhD Student



"I find it amazing here. I'm really impressed by all the avenues of research people have found and the experiments people are doing."

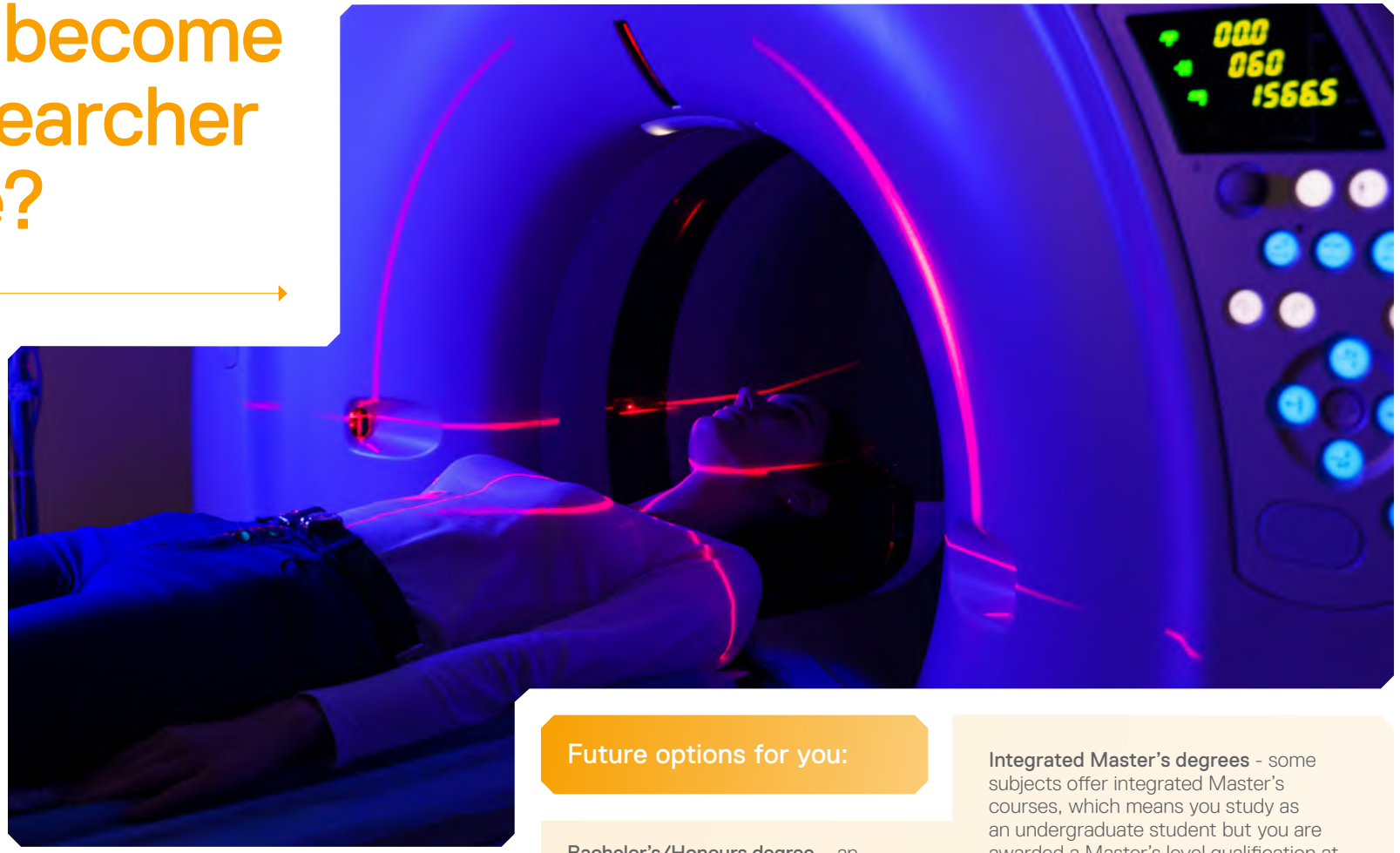
Amy Fleming, Laboratory Technician Apprentice

"I get to work with awesome colleagues and learn about groundbreaking research right from the source. Almost everyone is willing to give you a bite-sized seminar on their research."

Sitara Ballal, Research Assistant

There is a bright future in cancer research. The London Cancer Hub is a new global centre for cancer innovation based in Sutton, London. We need the next generation of cancer researchers to fill the world's largest cancer life science district. Could that be you?

How do you become a cancer researcher of the future?



There are lots of ways to become a cancer researcher. We need people from across lots of different subjects and backgrounds to help with the groundbreaking science that happens within cancer research and here at the ICR.

After your GCSEs, Nationals, or equivalent qualifications, there are different options available to you to pursue a career in cancer research. These include: **A Levels or Highers, T Levels, Apprenticeships, Alternative Academic Qualifications,** which you may have heard called BTECs previously.

Subjects that may be of interest to you at this point could include: **Chemistry, Biology, Maths, Further Maths, Statistics, Physics, Computer Science, Applied Science, Applied Human Biology, Science.**

It is a good idea to speak to your trusted adults about the options available to you. Think about what interests you and how you prefer to learn.

You may be considering your next steps after this point. Good questions to think about are whether you want to continue studying, would like to work or a combination of both. It's okay if you don't know yet. Why not try out some work experience or speak to people in different roles who have taken different pathways.

Future options for you:

Bachelor's/Honours degree – an undergraduate degree that normally takes three or four years to complete at a university. Some of the subjects you can study you may not have heard of before, for example, genetics, biotechnology, immunology, microbiology and pharmacology. These are all underpinned by topics you will have learned about already in science, so be curious and explore.

Degree apprenticeships – these enable you to gain a full undergraduate or Master's degree while also working in the sector. They take three to six years to complete and you'll spend roughly 20 per cent of your time studying and 80 per cent of your time working.

Integrated Master's degrees - some subjects offer integrated Master's courses, which means you study as an undergraduate student but you are awarded a Master's level qualification at the end.

Master's degree – these are qualifications that are completed after an undergraduate degree. They can be taught, following a similar format to a Bachelor's, or can be research-focused where students work on a specific project.

PhD – the highest level of degree achievable and involves three or four years of full-time study, part-time options are also available. You choose a specific area to independently research and it indicates that you have made a significant contribution to knowledge in your field.

Who does cancer research?

Sud Muralidharan
Research Administrator, Genetics and Epidemiology

Sud provides support for two research programmes which includes processing samples, communicating with patients, and creating data reports for the team.

Subjects post-16: Biology, Chemistry and Psychology

Qualifications: BSc Biomedical Sciences, MSc Genetics of Human Disease and MSc Cancer, Molecular Pathology and Genomics

Skills: Organisation, communication and passion.

Theodoros Karalis
Postdoctoral Research Fellow, Cell and Molecular Biology

Following Theodoro's PhD studies, he is continuing his research career and is investigating how diet might affect cancer.

Subjects post-16: Mathematics, Physics, Chemistry, Biology

Qualifications: BSc Chemistry, MSc Biochemistry, MSc Bioinformatics, PhD in Biochemistry

Skills: Curiosity, determination and collaboration.

Soham Mandal
Data Scientist, Genetics and Epidemiology

Soham builds artificial intelligence systems to understand biology, enhancing the development of improved medicines and diagnostic systems in cancer research.

Subjects post-16: Maths, Physics, Chemistry and Statistics

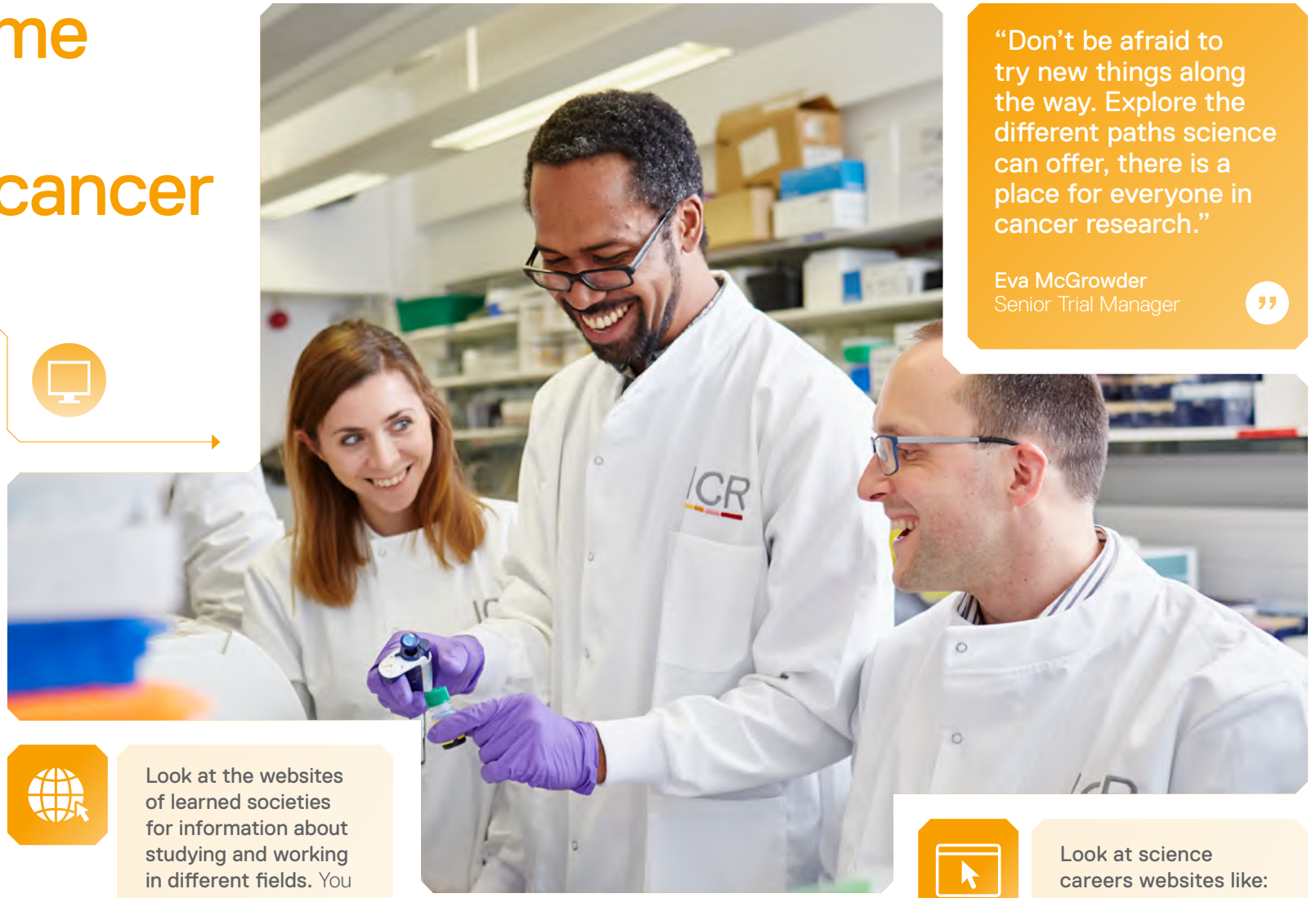
Qualifications: MEng Computer Science, PhD in Computer Vision

Skills: Analytical thinking, teamwork and time management.

"Don't underestimate your transferable skills. Cancer research is competitive, even if your background isn't perfectly aligned with the job you want, your skills are still valuable"

Sud Muralidharan

What are some top tips for becoming a cancer researcher?



"Don't be afraid to try new things along the way. Explore the different paths science can offer, there is a place for everyone in cancer research."

Eva McGrowder
Senior Trial Manager

Talk to your teachers, school careers adviser, previous students from your school at university and any friends and family you know that work in science.

Organise some work experience to see what a career in science is really like, improve your CV and personal statement and gain valuable experience – try contacting local universities, companies or your nearest hospital.

Look at the websites of learned societies for information about studying and working in different fields. You could, for instance, look at the Biochemical Society, the Royal Society of Biology, the Institute of Physics and Engineering in Medicine, the Institute of Animal Technology, and the Royal Society of Chemistry.

Attend science fairs and careers events in your local area or online, to speak to people who work in the field – there's lots happening across the country.

Look at science careers websites like:

My World of Work: myworldofwork.co.uk

Meet the future you: mtfy.org.uk

and you can find more inspiration at ICR.ac.uk/schools **too!**

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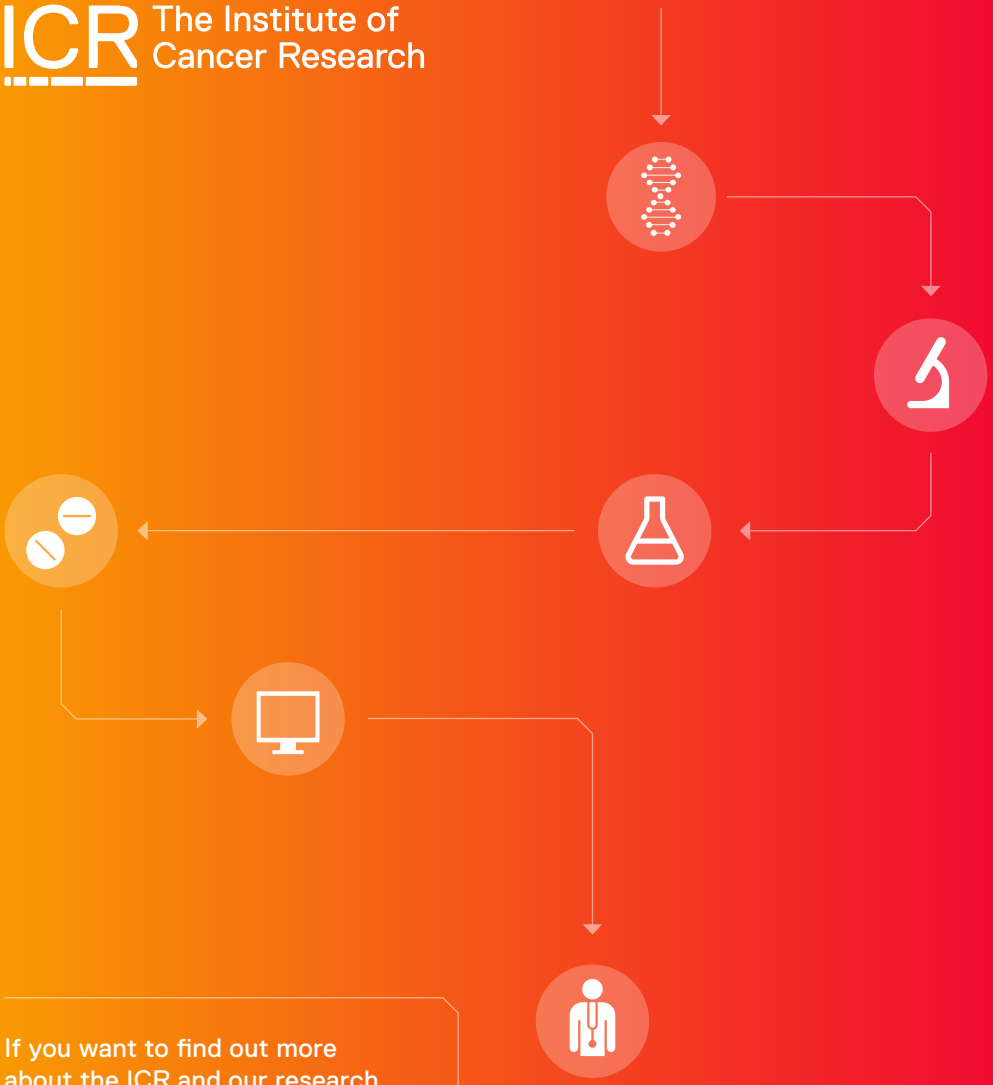

If you want to find out more about the ICR and our research look at:

our website:
ICR.ac.uk

our Instagram:
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our LinkedIn
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