

UNIVERSITY OF
Southampton

CURING CANCER FROM WITHIN





THE CENTRE FOR CANCER IMMUNOLOGY

Immunology is saving lives. Your body's own immune system has the power to eradicate disease, and even cure cancer. The University of Southampton has been at the forefront of this research field for 40 years, and our clinical trials are delivering outstanding results.

In 2015, we launched a £25m campaign to create the UK's first Centre for Cancer Immunology and to accelerate our research. Thanks to the incredible support of our donors, we exceeded our target, and the Centre is now fully up and running.

The campaign was never just about the bricks and mortar. The talent will deliver the breakthroughs we so desperately need to find a cure for cancer. That is where the Cancer Immunology Talent Fund comes in.

What is cancer immunology?

Our immune system is an amazing thing. It has the ability to fight all sorts of diseases, including cancer. What's more, we can encourage the immune system to seek out and target specific dangerous cells – in the case of cancer, our killer T cells can be instructed to recognise and eliminate cancer cells. And the beauty is this immunity can potentially last a lifetime.

Through our continued research into cancer immunology, we're advancing this revolutionary treatment – known as immunotherapy – by developing more drugs and vaccines, carrying out further clinical trials, making greater breakthroughs, and ultimately curing cancer.

THE CANCER IMMUNOLOGY TALENT FUND

The Cancer Immunology Talent Fund will allow us to recruit the best scientists in the world, with access to cutting-edge equipment.

In Southampton, we already have some of the brightest minds in immunology, and we want to continue attracting and nurturing a talented team, bringing us ever closer to beating cancer.

There are four ways your support will lead us to finding a cure:

- 01 Launch the UK's first integrated PhD in Cancer Immunology
- 02 Attract global talent to lead our research
- 03 Create an interdisciplinary Innovation Residency Programme
- 04 Provide state-of-the-art research equipment

01

Launch the UK's first integrated PhD in Cancer Immunology



According to Cancer Research UK, there is a shortage of senior cancer immunologists working in the field. What's more, there is no dedicated programme in the UK to train the next generation in order to fill this skills gap. That's about to change, though.

Having already built the UK's first cancer immunology centre, we are now launching the UK's first integrated PhD in Cancer Immunology.

This four-year structured programme will develop the advanced research and associated quantitative and bioinformatics skills required to become an independent researcher in cancer immunology. It will develop and expand our highly trained workforce, nurturing students under our experienced scientists while working on ground-breaking projects.

Your gift will have a direct effect on the speed at which we can train future cancer immunologists and find a cure for cancer. Help the UK's first integrated PhD in Cancer Immunology become a success.

Michaela Christodoulaki

Michaela Christodoulaki is a PhD student at the start of a four-year research project into cervical cancer, with the ultimate aim of being able to identify women at high risk of developing the disease, so that they can receive early treatment.

Originally from Greece, Michaela was attracted to the Centre after completing her undergraduate degree thanks to its international reputation: "The Centre is incredible. Every person is working towards the common goal of eliminating cancer. To know that our discoveries in the laboratories will find their way into patient clinics makes all of the work so rewarding."

Philanthropic support towards the Cancer Immunology Talent Fund has already helped to fund Michaela's PhD – something for which she is extremely grateful: "It is so important for people to get behind medical research in whatever way they can. We are part of something that is bigger than any one individual. The Centre's work as a collective will have an impact on the lives of so many other people, and it is an honour to be a part of that."

A PhD studentship costs £141,000 with domestic fees and £212,000 with international fees.

Collaboration drives innovation. When different disciplines work together, breakthroughs happen. That's why it is vital that researchers from across diverse fields are able to be in physical proximity if we want to beat cancer.

Our Innovation Residency Programme will do just this. We'll bring together researchers from across the University – in disciplines as diverse as chemistry, computer science, and health sciences – for residencies lasting from weeks to months.

Previously, the geographical distribution of our campuses has prevented the revolutionary outcomes that this type of work can bring. A dedicated space within the Centre will easily facilitate daily contact between researchers working on a specific project.

With your generosity, we'll be able to cover the Residents' teaching duties and organise networking events and seminars – ensuring our Innovation Residency Programme supplies a series of interdisciplinary collaborations. Through these, we will transform the thinking behind our approaches and truly accelerate our progress.

Professor Jacek Brodzki

Professor of Pure Mathematics at the University of Southampton, Jacek Brodzki is the first participant on our Innovation Residency Programme. He explains his motivation behind joining the Centre for this opportunity:

“After twenty years of work in pure mathematics, I started research in applications of topology about six or seven years ago. Cancer immunology experiments create vast amounts of complex and multidimensional data. Topological data analysis has been created to answer this challenge.

“It is crucial for me to be able to talk to the experts who created the data to understand the underlying problems and motivations for the experiments. The Innovation Residency Programme offers direct access to the cutting-edge experiments, and shortens considerably the learning cycle.

“The funding available through the national science and medicine foundations is not sufficient to fulfil the urgent need for new research. It is wonderful that there are individuals and organisations willing to support this work, and I hope this will increase. Philanthropy is typically much more flexible than the established funding streams, and can create significant results very quickly.”

Each residency costs in the region of £10,000.



02

Create an interdisciplinary Innovation Residency Programme

03

Attract global talent to lead our research



Our team of scientists is already world class. However, thanks to the new Centre, we have the capacity to attract even more brilliant minds from across the globe.

This will include the recruitment of a broad range of vital positions that brings together different research bases, and an increase in international collaborations through two different strands:

1. Our visitor programme will encourage global leaders in cancer immunology and affiliated disciplines to share their expertise with the Centre – from short, three-day visits up to longer, two-month stays.
2. Our research sabbaticals will allow the Centre’s own scientists to travel to other experts in the field – this could be learning an experimental technique for one month, or an early-career researcher spending up to a year in another world-leading institution.

Your support will ensure that the Centre is filled with the finest talent from around the globe, and that we continue to develop international partnerships in the search for a cure for cancer.

Professors Sally Ward and Raimund Ober

Leading scientists have already been attracted to the Centre as a result of the Cancer Immunology Talent Fund.

Relocating from Texas to the Centre for Cancer Immunology in Southampton was an opportunity “too good to miss”, according to Professor Sally Ward. She and her colleague Professor Raimund Ober are globally leading scientists in the field of antibody-based therapeutics, and their research at the Centre focuses on breast and prostate cancers, expanding the scope of its immunotherapy programmes.

Professor Ober explains his decision to join the Centre: “Southampton has a remarkable reputation for taking basic scientific discoveries from the lab through to clinical practice, and it is very exciting to be a part of that.”

Sharing his enthusiasm, the Director of the Centre, Professor Tim Elliott, said: “We are thrilled to welcome Sally and Raimund to Southampton. They are both world class in their respective fields, and their interdisciplinary approach fits very well with our vision to take patient-focused cancer immunology research to a new level.”

A short visit on our visitor programme costs £2,500, while a longer stay can cost up to £14,000.

It costs £5,000 for a short research sabbatical and £50,000 for a long sabbatical.

04

Provide state-of-the-art research equipment

We need top-of-the-range equipment to facilitate the ground-breaking work in the Centre.

Our research drives an ever-changing list of required items. Take a look at the insert to see what our priorities are at the moment.



SUPPORT US

Your support towards the Talent Fund will ensure that the Centre for Cancer Immunology attracts and retains the brightest people with access to the best resources for years to come. Together, we'll beat cancer, once and for all.

If you wish to donate, you can do so online at giving.southampton.ac.uk

You can also find more information on our website at www.southampton.ac.uk/youreit

Alternatively, if you would like to discuss anything further, you can call us on +44 (0) 23 8059 2747, or email us at youreit@southampton.ac.uk



“I have benefitted so significantly from the Centre’s work, and I hope my donation will help others who find themselves in the same situation. There are exciting possibilities just over the horizon, and it is vital that their work can continue without being held back through lack of funding.”

Ian Goddard, patient and donor



“Everyone knows somebody who has been touched by cancer – it takes too many people too soon. I believe in getting to the heart of problems by using clever ideas, investing in new technologies, and supporting novel approaches. In my experience, a centre like this always boosts team spirit, and creates innovation, competition, and a desire for excellence. It’s a place for ambition, and for capable people to thrive. I suspect that we will end up making discoveries we never expected.”

Colin Smith, donor

 **Find out more**
www.southampton.ac.uk/youreit



Find out more

www.southampton.ac.uk/youreit



Please recycle this publication
when you have finished with it.