



ROYAL BROMPTON

CARDIQ ONCOLOGY EXCELLENCE



GENEROUSLY SUPPORTED BY







BE PART OF THE FUTURE OF CARDIO-ONCOLOGY PREVENT THE CANCER PATIENT OF TODAY BECOMING THE CARDIAC PATIENT OF TOMORROW



WHAT IS CARDIO-ONCOLOGY

Cardiovascular disease and cancer are the leading causes of death worldwide. 17.7 million people die of cardiovascular disease and 8 .8 million people die of cancer per annum.

Over recent years medical advances have led to increased cancer survival and larger numbers of people living cancer-free for many years after treatment. These life-saving treatments, while important for treating cancer, can sometimes cause problems in the heart and vascular (circulation) system – called 'cardiotoxicity'.

The growing epidemic of cardiovascular diseases in people affected by cancer has led to the development of a new specialist field of modern medicine known as Cardio-Oncology.

Cardio-Oncology is an emerging area of research and clinical practice that improves the cardiovascular health of cancer patients. It is common for many cancer treatments to interfere with the cardiovascular system, causing further challenges for patients.

Cardiovascular complications of cancer therapy during treatment can disrupt optimal cancer care, sometimes leading to permanently stopping the best cancer treatment. These complications can also leave a legacy and cause heart disease months or years after cancer treatment was completed in cancer survivors. Cardio-Oncology involves detecting, treating and preventing cardiovascular toxicity and disease caused by these treatments, as well as enabling as many patients as possible to complete the most effective treatment for their cancer in a timely manner.

The success of modern cancer treatments means that more people now survive free of cancer, or with stable, non-progressive disease. Everyday lifestyle choices such as eating a healthy diet, being more active, not smoking and maintaining a healthy weight are important ways to help reduce cancer risk. The Centre of Excellence in Cardio-Oncology is also focused on optimising cardiovascular health in cancer survivors, and promotes appropriate screening to detect heart disease at an early stage before it becomes life-threatening.

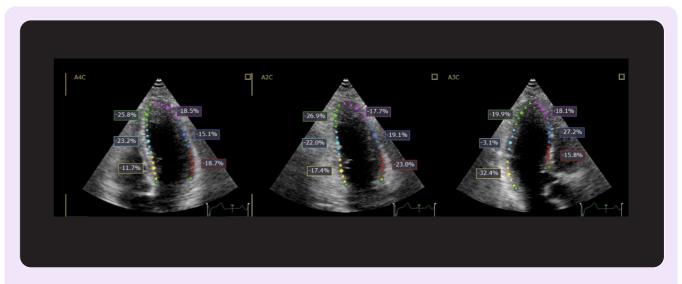


Figure 1. Echocardiography images demonstrating sensitive techniques that are used for the early detection of heart disease before it manifests as symptoms in patients.

Figure 3. Multiparametric Cardiac MRI images demonstrating the non-invasive assessment of the architecture of the heart muscle that can help determine the presence or abscence of heart damage in patients.

It is not known when an individual may have a heart attack due to blockage of a coronary artery (the blood vessels supplying oxygen to the heart). But it is known exactly when they will receive chemotherapy or radiotherapy for their cancer that can put their heart at risk. This gives the doctor an opportunity to develop a strategy before a patient starts cancer treatment, to keep their heart safe.

Cancer treatment can cause the heart to pump less efficiently, cause changes in blood flow and/or increase the risk of blood clots that can cause a heart attack. The goal is not to block cancer treatment but to support it, by closely monitoring the heart to pick up any abnormal changes.

"At Royal Brompton Hospital, we can provide a personalised plan to initiate heart protection medicine in people who are at the highest risk before they start their cancer treatment. Alternatively, we can closely monitor their heart health and provide treatment when early signs of heart strain are detected and before they develop more serious heart problems", explains Dr Alexander Lyon, director of the new Cardio-Oncology Centre of Excellence at the Royal Brompton Hospital.

WHAT ARE WE DOING ABOUT THIS GROWING NEED

The Royal Brompton Hospital is proud to host the Cardio-Oncology Centre of Excellence – the first of its kind in the UK – which was created in 2023 following a Gold Class centre of excellence award from the International Cardio-Oncology Society and is led by the internationally recognised specialist, Dr Alexander Lyon.

THE CENTRE IS HOPING TO ACHIEVE SEVERAL OUTCOMES INCLUDING:

Development and growth of the RBH Cardio-Oncology Centre of Excellence

This will benefit both the thousands of patients seen in the service at the Royal Brompton hospital in London and the millions of patients receiving cancer treatments which cause cardiovascular disease annually.

Impact: We expect that the development and growth of the Centre will improve the health, quality of life and survival of cancer patients receiving cardiotoxic cancer treatments. The Centre of Excellence is focused on providing the highest quality of research, education and advocacy in the field of Cardio-Oncology. This will translate into improvements in health and will generate interest in patients and clinicians, which will be communicated on media platforms, social media and to patient groups.

Al based algorithm to enhance patient diagnosis and management in clinical care

Impact: The software will generate new scientific analysis algorithms and improve patient care in oncology centres around the world and help them deliver modern Cardio-Oncology care.

The UK's first Cardio-Oncology Biobank

Impact: This will generate a rich data source that will be of high value and interest to clinical researchers in the field of Cardio-Oncology We will lead the way forward in the UK to help establish a wider range of collaborative centres involved in Cardio-Oncology in the UK and worldwide.

Global Cardio-Oncology Network

Impact: Establishment of new collaborations between different institutions with high impact research findings and dissemination at international conferences and media.

Automated software for oncologists that can be used as an app on phone or website

Impact: Delivery of guideline-based care for widespread clinical use by oncologists across the globe to improve patient care through early diagnosis, improved detection and initiation of cardioprotective therapy.

Training of two fellows per year in Cardio-Oncology

Impact: Training of the next generation of Cardio-Oncologists to help expand the delivery of Cardio-Oncology in other centres through training of national and international fellows.

Clinical academic research

Impact: Publication of at least two high impact scientific papers and presentation at international scientific conferences per year. Generation of widespread recognition of research excellence nationally and internationally to help catalyse and secure future funding from industry partners.

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Royal Brompton and Harefield hospitals is the UK's largest and leading specialist centre for the treatment of patients with two of the world's biggest killers - heart and lung disease. Based in Chelsea and Hillingdon respectively, the hospitals are known internationally for their expertise, as pioneers of innovative and influential research and for providing high quality services for over 250,000 patients annually. All patients – from premature babies to adults in their 90s - have complex health needs and/or life-limiting conditions such as congenital heart disease, cystic fibrosis or those needing a heart or lung transplant.



Figure 2. High resolution CT coronary angiogram showing the coronary arteries which can become disease with cancer therapies.

The hospitals are responsible for significant medical breakthroughs taken up across the NHS and internationally. These include the first ever successful heart and lung transplant in Europe, and in the UK, the first closing of a hole in the heart. They were the first specialist centres treating polio and cystic fibrosis, both set up in the 1960s, and which remain leading centres today. The first Cardio-Oncology service in the UK was set up at the Royal Brompton Hospital in 2011.

19 million people in the UK live with heart or lung problems. Heart and lung disease numbers are rising, making the burden of these diseases greater than ever. The capacity of the health service to respond, however, is limited and so new ideas are necessary to reduce the impact of these conditions on people as well as on our health services.

The purpose of Royal Brompton & Harefield Hospitals Charity is to make a life-changing difference for patients by supporting impactful projects that create new possibilities in diagnosis, treatment and research. Working with those on the front line of heart and lung care, these projects are often vital to patients' lives, many of whom will receive lifelong care. In 2022/23, £3.05m worth of grants were made to fund equipment and infrastructure, research, innovation, projects to improve the patient experience and support staff, impacting over 20,000 beneficiaries.



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If there were to be a Platinum Centre of Excellence in Cardio-Oncology, it would be the one at the Royal Brompton Hospital in London.

PROFESSOR JOERG HERRMANN
HEAD OF CARDIO-ONCOLOGY, MAYO CLINIC, USA

HOW YOU CAN GET INVOLVED

With your support we could take the Cardio-Oncology Centre of Excellence to the next level and enable us to achieve transformational research outcomes.

BECOME A CARDIO-ONCOLOGY CLUB MEMBER - £25,000

As a member of the RBH Cardio-Oncology Centre of Excellence, you will have exclusive opportunities to witness the profound impact of your generosity. This would include:

- Invitations to inspiring events including members networking events where you can hear directly from the leading experts in the field of Cardio-Oncology.
- E-newsletters and updates for our members network, providing updates on significant breakthroughs and policy developments.
- Networking opportunities: Connect with like-minded people who share your commitment and vision to advancing Cardio-Oncology research.

Become a member with an annual subscription of £25,000, which will allow you to become directly involved in the research world through exclusive invitations to attend the Global Cardio-Oncology Summit, contribute to research dinners where you will be able to speak to our leaders in the field directly and contribute to the patient and lay member board meetings.

BECOME A CARDIO-ONCOLOGY ACCELERATOR - £50,000

A donation of £50,000 would enable us to expedite the process on the development of the automated software that is going to be critical in helping us support cardiologists and Cardio-Oncologists across the UK and the world or support the growth and development of the biobank as a unique research resource. As part of your funding you would be invited to attend exclusive events where you would hear from experts in the field of Cardio-Oncology, and network with other like-minded individuals who share a passion for improvements in Cardio-Oncology.

SPONSOR A CARDIO-ONCOLOGY RESEARCHER - £100,000

A donation of £100,000 would sponsor a researcher for one year, allowing them to push the boundaries in the world of Cardio-Oncology and help inform the future in this pioneering area of research. This could be used to help support researchers from other countries in an international exchange programme to train them to deliver world class Cardio-Oncology back in their home country. You would be invited to name the bursary supporting the research, and be invited to attend exclusive events where you would hear from experts in the field of Cardio-Oncology, network with other like-minded individuals who share a passion for improvements in Cardio-Oncology, and meet with the researcher that you are funding to learn more in depth outcomes of the research.



SPONSOR A CARDIO-ONCOLOGY RESEARCH PROGRAMME - £250,000

A donation of £250,000 would facilitate the development of a world class research project with long term impact. The project that would be selected would be based on impact and outcomes for patients, and undergo peer review by experts in the field to ensure the highest quality. By funding this research project you would receive external recognition, invites to attend exclusive events where you would hear from experts in the field of Cardio-Oncology, network with other like-minded individuals who share a passion for improvements in Cardio-Oncology, and meet with Dr Alexander Lyon, internationally recognised leader in the field of Cardio-Oncology.

FUND THE FUTURE OF CARDIO-ONCOLOGY CENTRE OF EXCELLENCE - £1 MILLION

A donation of £1 million would secure the future of the Cardio-Oncology Centre of Excellence and enable the sustainability of the programme, thereby impacting health outcomes for patients worldwide.

If you would like the opportunity to be able to give more than outlined above, please get in touch with Tracey Shinkins-Watson at tracey.sw@rbhcharity.org, Head of Philanthropy & Partnerships – Royal Brompton and Harefield Hospitals Charity.

Thank you for your consideration and your interest to be part of this new chapter of medical research.

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OUR CARDIO-ONCOLOGY TEAM AT RBH



Dr Alex Lyon



Cardio-Oncology Secretary



Prof. Stuart Rosen

Dr Sol Andres

Fellow



Dr Sohaib Nazir



Dr Siva Tharshini Ramalingam Cardio-Oncology GPSI



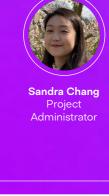
Priya Reehal Cardio-Oncology



Dr M. Clara Llamedo



Dr Kathleen Ozaeta Fellow







Dr Padraig O Drisceoil



Luis Garcia Rodriguez

Figure 4. World map demonstrating the international reach of our Cardio-Oncology programme.

RBH GLOBAL ALUMNI NETWORK



Pedro Moliner Barcelona

Li Ling Tan

Singapore

Felipe Garza

Mexico City

Ruben Evertz

Munich

Germany

Singapore



Rachelle Hamadi

Beirut

Joaquim Cevallos

Valencia

Spain and UK

Yulia Kirichenko

Moscow

Russia

Senechal-Dumais

Quebec City, Canada

Richard Cubbon Leeds





Maria Sol Andres

Buenos Aires

Argentina



Nilesh Pareek

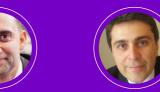


Egle Ciburiene Vilnius Lithuania

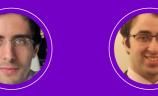


Sohaib Nazir London

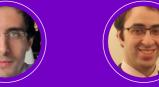




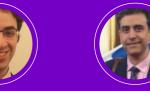
George Koulaouzidis London Greece and UK



Joao Martins Porto Portugal and UK



Ramsay Tabbara London



Brisbane



Ahmed Badr

June Tanking





Theo Murphy Dublin Ireland



Nana Poku Geneva Switzerland

RBH CURRENT FELLOWS



Buenos Aires Argentina



Manila Philippines



Padraig O Drisceoil Wexford Ireland



Vijay Maharajan London



Luis Garcia Rodriguez Clinical Fellow Malaga, Spain

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For over 30 years I have been tired.

Despite being assessed regularly at various hospitals, it was the Cardio-Oncology Centre of Excellence that identified latent effects of my childhood radiology treatment was in fact impairing my heart to function as well as it should. Their diagnosis and intervention has been truly life-changing. I am no longer exhausted by early afternoon and can live life more fully.

My family and I can't thank the Centre enough and will be forever grateful.

ELINE SOETE, CANCER SURVIVOR





