



**St. Vincent's UCD
Cancer Centre**

St Vincent's UCD Cancer Centre

Annual Report 2022-23



**ST. VINCENT'S
HEALTHCARE GROUP**



**Saint Luke's
Radiation Oncology
Network**



Our Values

Best Patient Care
Best Team and Resources
Best Processes
Best Approach
Best Enablers

Chair's Introduction



Prof Michael Keane,

Chair, St Vincent's UCD Cancer Centre

Dean of Medicine, Head of School, UCD School of Medicine

2023 saw the establishment of the St. Vincent's UCD Cancer Centre, with the aim of harnessing the considerable strengths of University College Dublin and the St Vincent's Healthcare Group to improve the outcomes and experience for cancer patients.

The St. Vincent's UCD Cancer Centre opens a new chapter and a deepening of the century and a half long relationship between St Vincent's and UCD. It also reflects the prioritisation of cancer for our institutions and our joint desire to address the challenges that cancer presents for the society in which we live.

This new cancer centre is ideally placed to address those cancer challenges, and the integrated nature of the new centre, encompassing the university and hospital in one centre, is well positioned to deliver impactful personalised care to patients. The purpose of the new Cancer Centre's is to deliver the best cancer care for patients through high quality, integrated care, advanced clinical research and ultimately personalised diagnosis and treatment.

A key goal of the Cancer Centre is the designation of the Cancer Centre as a Comprehensive Cancer Centre by the Organisation of European Cancer Institutes (OEI). That journey has commenced, under the stewardship of Prof David Fennelly, with our first designation review in Spring 2025, and we look forward to updating you on this journey in future annual reports.

Prof Michael Keane

Chair, St Vincent's UCD Cancer Centre

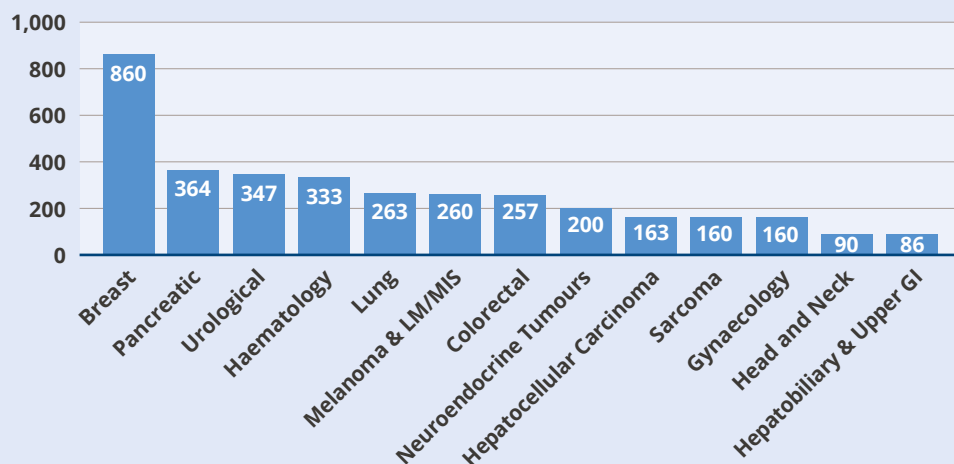
Dean of Medicine, Head of School,

UCD School of Medicine

Highlights of 2022-23

Patients

Number of Newly Diagnosed Cancers 2023 (excluding skin but including Melanoma)



6,691

Number of Newly Diagnosed Patients in 2023

Pathology and Radiology



481,182

Histopathology and Cytology Requests



766

Cancer Molecular Diagnostic Requests



14,295

Mammography



1,908

PET/CT

Clinical Care



18,700

Number of Chemotherapy infusions



2,828

Number of Surgical Procedures



14,772

Number of Multi-Disciplinary Meeting Discussions

Research



€8.6m

Research Funding



21

Open Clinical Trials



173

Peer Reviewed Publications

Welcome to the St Vincent's UCD Cancer Centre Annual Report



Prof David Fennelly,
Director

The St Vincent's UCD Cancer Centre builds on the outstanding cancer care provided by St Vincent's Healthcare Group and the research and educational expertise of University College Dublin. Our mission is to provide high quality, integrated cancer care, advanced clinical research and ultimately more personalised diagnosis and treatment.

The Cancer Centre delivers care across St Vincent's University Hospital, St Vincent's Private Hospital and St Michael's Hospital in an integrated and coordinated manner. Over 6,600 cancers were diagnosed at the Cancer Centre in 2023, an increase of 5% on 2022, with more patients than ever involved in clinical studies, reflecting our ambition to be at the cutting edge of cancer care.

We are living at a time of significant transformation in cancer care, with targeted cancer prevention programmes, the regular introduction of novel, effective and relatively well-tolerated cancer therapies and the advent of affordable and accessible molecular genomics, that will usher in an era of personalised treatment for patients.

The ambition of the St Vincent's UCD Cancer Centre is to become a comprehensive cancer centre, that is nationally and internationally recognised as a leading cancer centre that delivers high quality care, rapidly translates the output from research into tangible patient benefits and that educates and develops the clinicians and researchers of the future.

To deliver on this ambition we have joined the Organisation of European Cancer Institutes (OEI) with the view of becoming an accredited comprehensive cancer centre in the coming years. The OEI is a non-governmental organisation, which comprises of 123 members, which include some of the most prominent comprehensive cancer centres in Europe. The OEI accreditation programme is seen as the gold standard benchmark for cancer care. The OEI Designation and Accreditation programme has two levels of accreditation - cancer centre and comprehensive cancer centre.

We hope you find this report both an informative snapshot of the cancer care and research that has been undertaken by the St Vincent's UCD Cancer Centre and one that captures our ambition to become a comprehensive cancer centre that delivers the best possible care and outcomes for our patients.

Finally, I would like to acknowledge the acknowledge the outstanding commitment and effort of my colleagues across the St Vincent's UCD Cancer Centre whose contribution is reflected in this report.

Prof David Fennelly

Director

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SECTION 1

Introduction

St Vincent's UCD Cancer Centre

In April 2023 St Vincent's Healthcare Group and University College Dublin established the St Vincent's UCD Cancer Centre with the goal of integrating the world class care being delivered in the university hospital, with the world class research and education in the university, and bring a step change to the care and outcomes for patients with cancer.

The launch of the St. Vincent's UCD Cancer Centre marks a significant milestone, symbolising a deepening of the century-and-a-half-long relationship between our esteemed institutions. This joint effort underscores our shared commitment to addressing the challenges posed by cancer in our society.

The new Cancer Centre is established against the background of the EU Cancer Plan 2021¹ which calls for an EU wide network of Comprehensive Cancer Centres, the European Cancer Organisation's calls for the EU's Horizon programme to be aligned to comprehensive cancer centres in order to maximise success and benefits for patients, and the Irish National Cancer Strategy 2017-2026 own call for the establishment of comprehensive cancer centres in Ireland.

A central goal of the St Vincent's UCD Cancer Centre is the designation of the Cancer Centre as a Comprehensive Cancer Centre by the Organisation of European Cancer Institutes (OECI). The Organisation of European Cancer Institutes (OECI) was founded in 1979 with the aim to:

- Reduce the incidence and death from cancer and to provide support to cancer patients.
- Link together the expertise in healthcare and research of all European cancer institutes
- Strengthen these cancer institutes and promote communication and collaboration between them.

The OECI Designation and Accreditation programme has two levels of accreditation - cancer centre and comprehensive cancer centre. The integration of high quality care and high quality research improves outcomes for patients and the St Vincent's UCD Cancer Centre is well positioned to provide our patients with the best and most up to date care possible.

1 [eu_cancer-plan_en_0.pdf\(europa.eu\)](#)

SECTION 2

About Us

St. Vincent's Healthcare Group

St Vincent's Healthcare Group (SVHG) encompasses St. Vincent's Private Hospital (SVPH), St. Vincent's University Hospital (SVUH) and St Michael's Hospital (SMH). St. Vincent's Healthcare Group (SVHG) is a strategically important and leading healthcare group in Ireland, on an integrated multi-hospital campus located at Elm Park, Dublin 4 and Dún Laoghaire, Co. Dublin. The healthcare group provides front-line, acute, chronic and emergency care across 50 different medical and surgical specialities. SVHG's two public hospitals are an integral part of services in the region, providing local, regional and national services in designated specialities.

University College Dublin

UCD is one of Europe's leading research-intensive universities. The international standing of UCD has grown in recent years; it is currently ranked within the top 1% of higher education institutions world-wide. UCD is also Ireland's most globally engaged university with over 38,000 students drawn from 152 countries, including over 5,000 students based at locations outside of Ireland.

Research and innovation are central goals of the university with the spectrum of research and innovation at UCD encompassing individual scholars, research groups, start-up companies and large-scale collaborations with industry and other partners. Research is conducted within each of the University's extensive range of disciplines, and in multidisciplinary research programmes addressing challenges of global scale.

St Vincent's UCD Cancer Centre

St Vincent's UCD Cancer Centre (www.stvincentsucdcancercentre.ie) is a joint venture between St Vincent's Healthcare Group and University College Dublin (UCD). The mission of the Centre is to deliver the best cancer care for patients through high-quality, integrated care, advanced clinical research and personalised diagnosis and treatment. The core purpose of the new Cancer Centre is to deliver optimal cancer care through a commitment to high-quality, integrated care, advanced clinical research, and, ultimately, personalised diagnosis and treatment.

The Cancer Centre is committed to embedding research into the care pathway as central element to addressing the challenges posed by cancer in our society.

The new cancer centre is strategically positioned to address these challenges, thanks to its integrated nature, combining the resources of the university and hospital in a single facility. This integrated approach is poised to deliver impactful personalised care to patients.

Cancer Care

The Centre is one of eight designated adult cancer centres in Ireland and is the nationally designated centre for neuroendocrine tumours (NET), pancreatic cancer and sarcoma. It is one of the largest providers of care for patients with breast, prostate, colorectal and lung cancer and is one of three adult stem cell transplant centres in the country.

- 1 of 8 Nationally Designated Adult Cancer Centres
- National Centre for Neuroendocrine Tumours (NETS)
- National Centre for Peptide Receptor Radionuclide Therapy - PRRT
- National Centre for Sarcoma
- National Centre for Pancreatic Cancer
- Leading Colorectal and Urological Surgical Unit
- Designated as one of four national centres for Gynae-Onc MDM
- Designated as one of four national centres for bladder cancer surgery
- National Liver Transplant Programme
- National Pancreas Transplant Programme



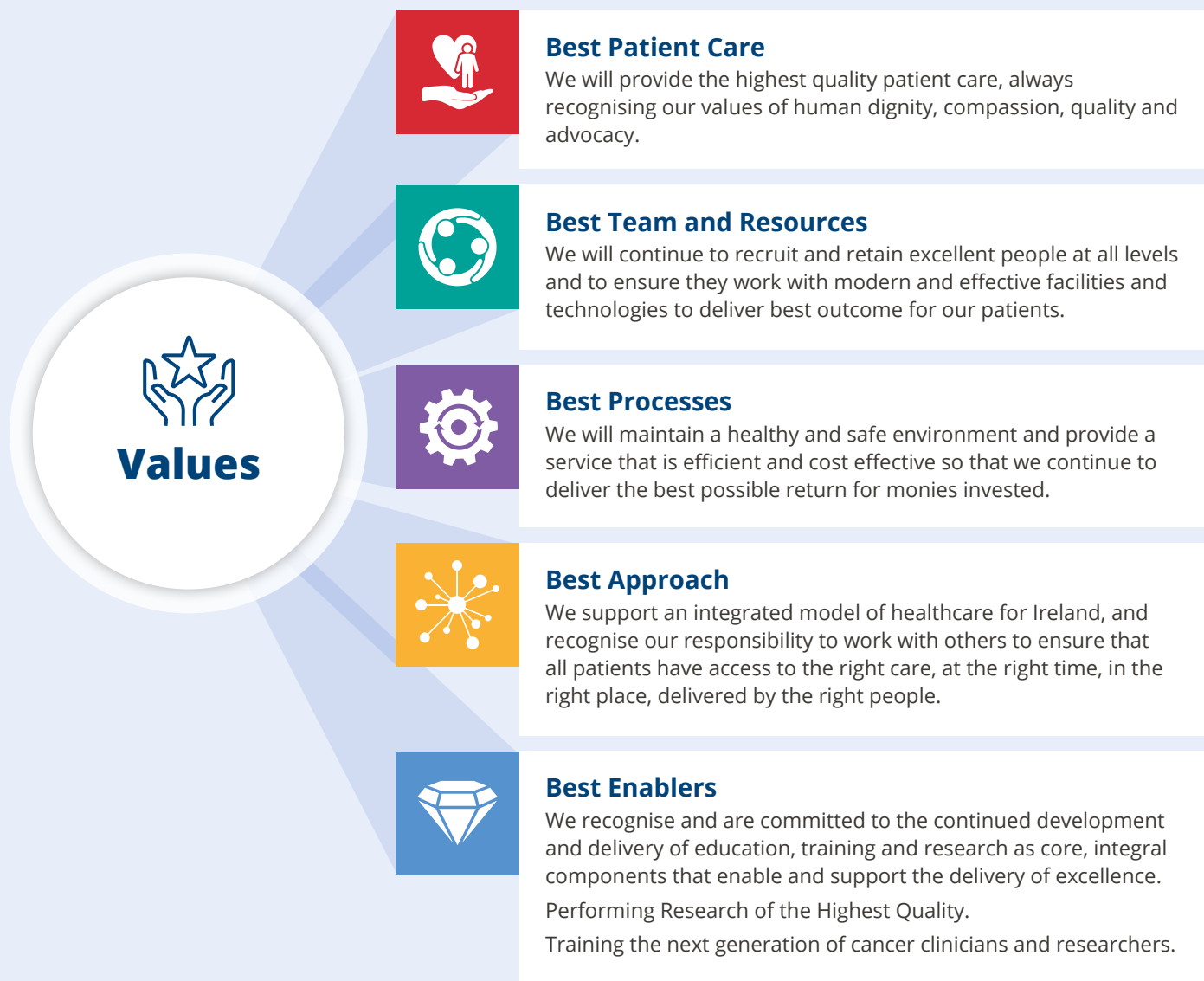
Mission

To be at the forefront of cancer service provision in Ireland by providing a service that enables each and every patient to access safe, compassionate and high quality care when they need it. To deliver the best cancer care for patients through high quality, integrated care, advanced clinical research and ultimately more personalised diagnosis and treatment.



Vision

The St Vincent's UCD Cancer Centre will be a leading cancer centre/institute, renowned for its best in class service provision and recognised as an institution of choice in Ireland, with an international reputation, driven by a shared commitment to excellence in clinical practice, education, research and innovation. A centre of excellence for pioneering the very latest in cancer treatment and technologies.



Key Strategic Priorities



**New Cancer
Centre**



**OECI
Accreditation**



**Precision
Medicine**



**Quality
Improvement**



**Research and
Education**

SECTION 3

Year in Review

St Vincent's UCD Cancer Centre Launch: November 2023

On 28th November 2023, St Vincent's Healthcare Group and UCD School of Medicine officially launched the St Vincent's UCD Cancer Centre. By combining the academic and clinical expertise of Ireland's largest university and the St Vincent's Hospital Group, the new centre aims to enhance patient outcomes by combining world-class care with cutting-edge research.



National Designation as Hub for Sarcoma Services

In November 2023, St Vincent's University Hospital was designated as National Centre for Sarcoma Services. This is a hub and spoke model of care to ensure that each individual patient received the best possible care along their care pathway.

The St Vincent's Sarcoma Ireland Network comprises of four hospital campuses for the management of sarcomas in Ireland, with

St Vincent's University Hospital, which is the National Cancer Control Programme's (NCCP) nationally designated sarcoma hub and host to the National Multi-Disciplinary Team (MDT) Meeting, with Cappagh National Orthopaedic Hospital (CNOH), Tallaght University Hospital (TUH) and St Luke's Radiation Oncology Network (SLRON) as nationally designated spoke centres.

Launch of PRRT Service

In October 2023 a new national service for Peptide Receptor Radionuclide Therapy (PRRT) for neuroendocrine tumours (NETs), supported by the National Cancer Control Programme (NCCP) and the Department of Health, was launched at the St Vincent's UCD Cancer Centre.

This new service is a major step forward in cancer care for the neuro-endocrine tumour (NETs) patient population, with the aim of ending the necessity for patients to travel abroad under the HSE Treatment Abroad Scheme to access this novel treatment.



PRRT, a molecular targeted therapy, delivers precise radiation to cancer cells, thereby minimising damage to surrounding healthy tissue.

National Cancer Information System

St Vincent's launched the National Cancer Information System (NCIS) in November 2023, an initiative that has revolutionised the administration of anticancer medicines within our hospital and marked a significant milestone in cancer treatment.

The goal of NCIS is to deliver a clinical information system to support the care of cancer patients in all 26 hospitals providing systemic anti-cancer treatment across Ireland. NCIS enables a patient-centred, longitudinal, and accessible care record and ensures that the right information is available at the right time and in the right place to support safe and effective Systemic Anti-Cancer Therapy (SACT) prescribing, administration and documentation.

SECTION 4

Treatment
and Care

Access To Care

The St Vincent's UCD Cancer Centre is one of the eight nationally designated cancer centres and provides rapid access cancer services for patients with suspected breast, lung and prostate cancers. In 2023, there were 2,733 urgent breast cancers seen at the rapid access clinic an increase of 6.6% on 2022.

Figure 1: Urgent Referrals to the Breast Rapid Access Clinic

Breast Rapid Access (Urgent) Clinic 2022-2023

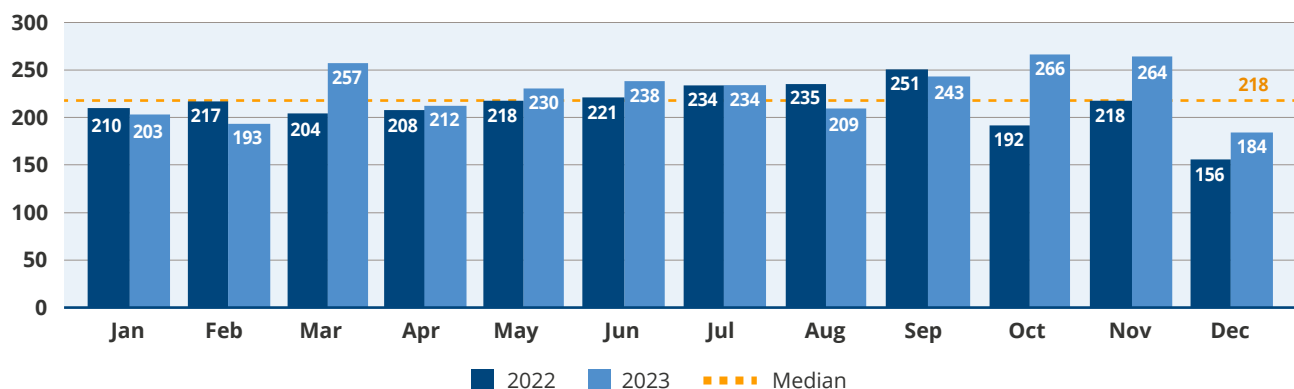
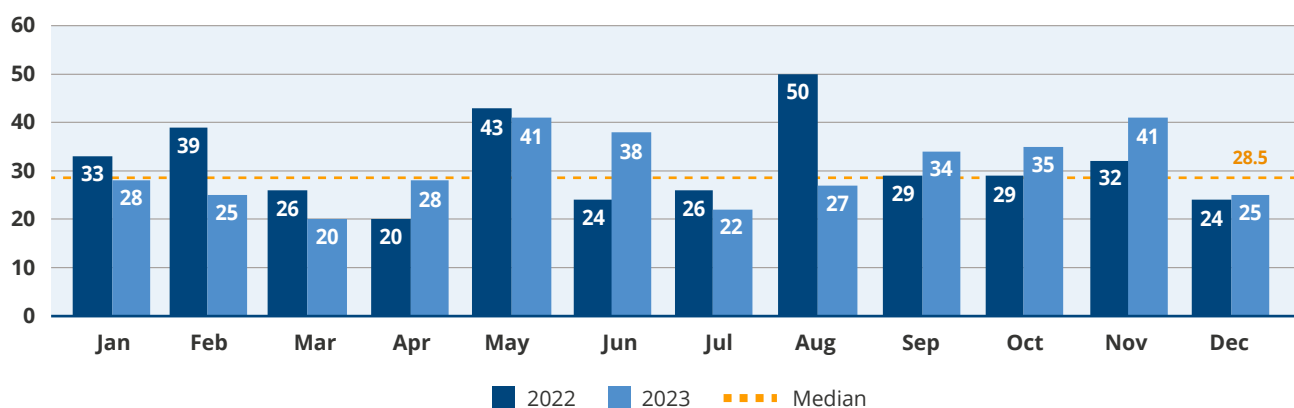
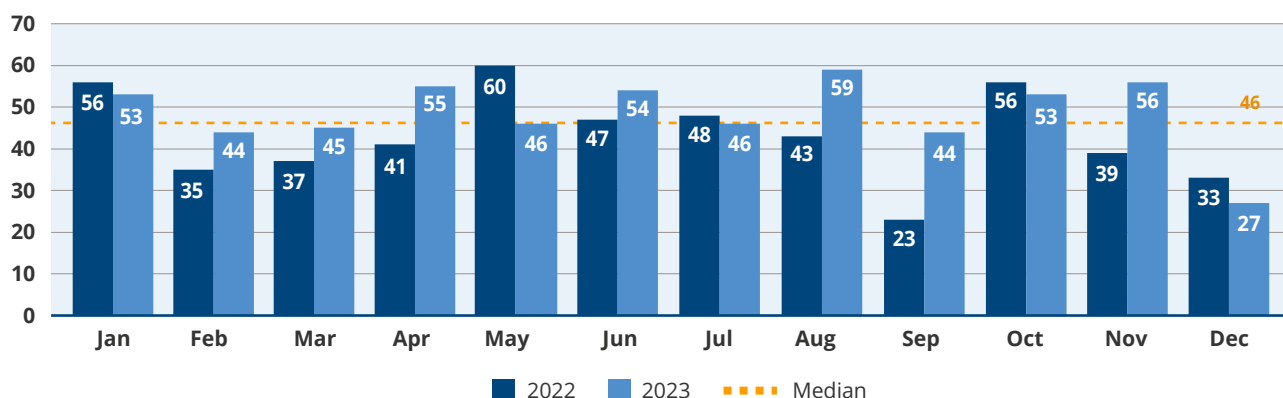


Figure 2: Referrals to the Prostate Rapid Access Clinic

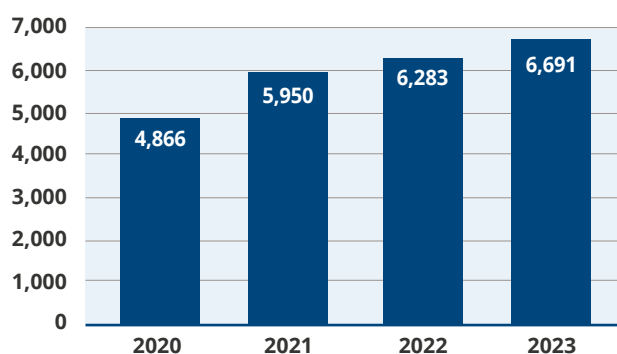
Prostate Rapid Access Clinic 2022-2023



Referrals to the Prostate Rapid Access Clinic were 369 (2022) and 364 (2023).

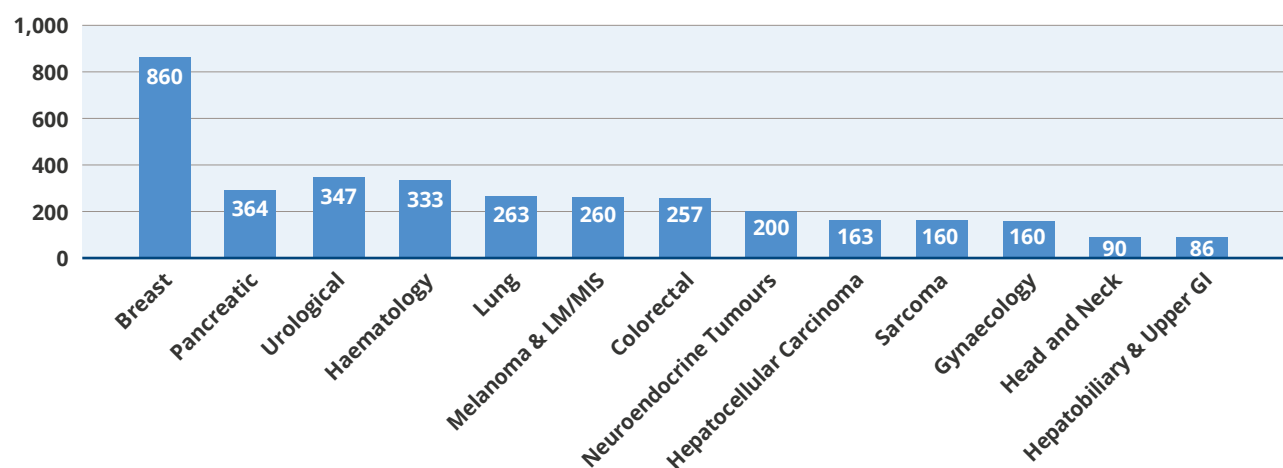
Figure 3: Referrals to the Lung Rapid Access Clinic**Lung Rapid Access Clinic 2022-2023**

Referrals to the Lung Rapid Access Clinic were 518 (2022) and 582 (2023), an increase of 12.3%.

Figure 4: Total Diagnosed Cancers SVHG 2020-2023**Diagnosed Cancers - St Vincent's UCD Cancer Centre - All Diagnosed Cancers 2020-2023**

The St Vincent's UCD Cancer Centre is a tertiary referral centre, providing a complete diagnostic pathway for cancer patients. In 2022, 6,283 cancers were diagnosed in the cancer centre and 6,691 in 2023, an increase of 6.5% over 2022.

In 2023 skin cancer represented just under half of all cancers with 860 breast cancers diagnosed, 347 urological cancers, 335 haematological malignancies and 289 pancreatic cancers.

Figure 5: Diagnosed Cancers SVHG 2023 (excluding skin but including melanoma)**Diagnosed Cancers by Type 2023**

Since 2020, three of the five fastest growing cancers, since 2020 are in areas where the cancer centre is the nationally designated cancer centre for that tumour type. Neuroendocrine tumours are up 70% since 2020, hepatocellular carcinoma up 40% and sarcoma up 39%. The other two fastest growing cancers are skin, up 45% and melanoma up 69% since 2020.

Multi-Disciplinary Meetings (MDM) Activity

Multidisciplinary working is an essential cornerstone of cancer care and MDMs are coordinated discussions to ensure that all newly diagnosed cancer patients benefit from expert multidisciplinary evidence-based discussion of their diagnosis and management. Multidisciplinary team meetings are weekly or bi-weekly meetings between healthcare professionals with different medical expertise. The goal is to discuss patients diagnosis and agree each patients treatment plan according to the most appropriate evidence-based protocols.

MDT /Data Management Capability: The MDT and Cancer Data Management team merged in 2023. The aim is to streamline the MDT functions and create efficiency in this process. Areas of focus are standardisation of Hospital MDT meetings, expansion of data captured and reported and focus on more timely production of data.

Patient Pathway Metrics include

1. First Contact To First Consultation.
2. First Consultation To Diagnosis and
3. Diagnosis To Start Of Treatment.

Multi-Disciplinary Team (MDT) Activity

Cancer Speciality	No. MDTs	No. of Discussions in 2023
Breast	50	2,626
Colorectal	46	816
Lung	46	1,266
Urology	51	876
Pancreas	50	2,021
Hepatobiliary and Upper GI	22	401
Hepatocellular Carcinoma	51	759
Neuroendocrine Tumours	26	957
Gynaecological	26	509
Head and Neck	28	775
Sarcoma	26	612
Haematology	146	2,551
Melanoma	25	603

Robotic Surgery

Robotic Surgery 2021-2023

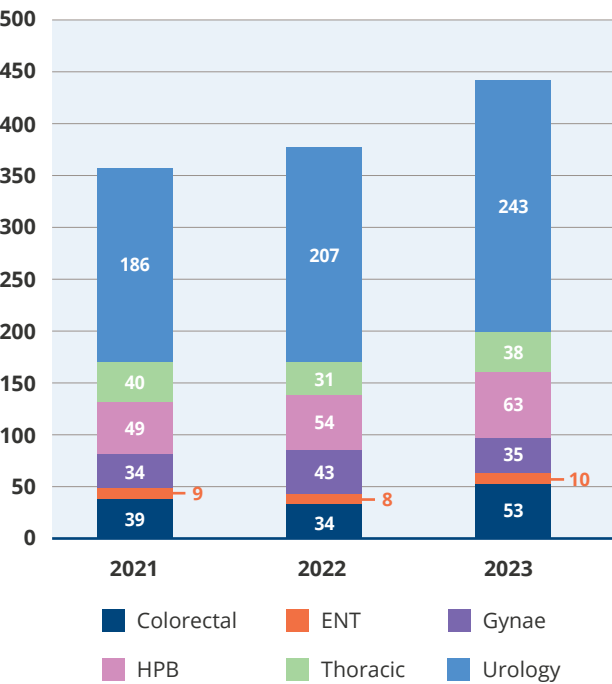


Figure 6: Robotic Surgery Volumes by Specialty 2021-23

The Robotic Surgery programme is led by the Clinical Director of Surgery, Mr David Mulvin and comprises of 12 consultant surgeons, working across six surgical specialties, and their surgical teams. The surgical programme allows our surgeons to perform many types of complex procedures with more precision, flexibility and control than is possible with traditional procedures. Robotic surgery is often performed through very small incisions and brings many benefits to patients, including:

- Shorter hospitalisation
- Reduced pain and discomfort
- Faster recovery time and return to normal activities
- Reduced risk of infection
- Reduced blood loss and transfusions
- Minimal scarring

St Vincent’s has carried out over 2,000 robotic surgery procedures since the service was established in October 2017



Beyond its direct patient benefits, robotic systems also ushers in a new era of surgical innovation, equipped with advanced features such as machine learning, data analytics, eye-tracking navigation systems, and cutting-edge imaging capabilities. These advancements not only mitigate the trauma of surgery but also enable unparalleled precision and efficiency in surgical procedures.

Reconfiguration of the Cancer Day Centre

HSE Capital funding was secured in Quarter 1 of 2023 to reconfigure St Anne's Day Centre to extend the capacity by 9 treatment chairs/bays. This brings the total number of patient treatment spaces in the unit to 28 spaces.

This benefits of this project include:

- Significant enhancement and improvement of the clinical environment
- Creation of isolation space compliant with IPC guidelines
- Optimise patient care, safety and flow through the organisation into the future to ensure that the St Vincent's UCD Cancer Centre is well placed to deal with anticipated future activity.

With 9,189 patients attending the day centre between June and December 2023, extra capacity is an absolute requirement. Construction commenced in October 2023 with a projected project completion date of April 2024.

The goal of NCIS is to deliver a clinical information system to support the care of cancer patients in all 26 hospitals providing systemic anti-cancer treatment across Ireland. NCIS enables a patient-centred, longitudinal, and accessible care record and ensures that the right information is available at the right time and in the right place to support safe and effective SACT prescribing, administration and documentation.

Radiotherapy

Radiation Oncology (or Radiotherapy) at the St Vincent's UCD Cancer Centre is available through the St Luke's Radiation Oncology Network (SLRON) and St Vincent's Private Hospital.

Linac Beam Optimisation

Linear Accelerators (Linacs) are highly complex x-ray machines used in the treatment of cancer. They can have a number of x-ray energy's that are used depending on the circumstances of the lesion being treated. Each x-ray energy has a large number of software variables that are set so that the x-ray energy is running and delivering radiation as intended.

Over time, as the components age, these variables are no longer the optimum settings and the machine starts to 'struggle' resulting in treatment delivery interruptions.

The Cancer Centre worked with Elekta (the Linac suppliers) to develop a project for the optimisation of the beams on a monthly basis via 'Intellimax' (Elekta's remote access system). Physics staff would be in the treatment control room assessing the effect of the beam optimisation and guiding the Elekta engineer on whether changes are adequate or not.

The outcome measures of fewer treatment interruptions and fewer unscheduled machine down time were achieved and the centre has moved to monthly beam optimisation on all machines. Review of the

In 2023, X patients started radiotherapy treatment, a x% increase on 2022. This included X treatment sites with x fractions delivered.

Graph Total RT Patients by Treatment Site

- Nursing
- Patient Satisfaction
- Infection Control – Healthcare related infections, Falls

Pharmacy Cancer Services

The pharmacy department provides a wide range of services to cancer patients. The team includes pharmacists and pharmaceutical technicians who are highly trained and specialised in this clinical area and in aseptic compounding. Pharmacy staff clinically review all chemotherapy prescriptions, compound parenteral chemotherapy in a controlled and validated environment, supply certain oral anti-cancer medications and lead on development and revision of treatment protocols and supportive care guidelines. The team works in conjunction with all other healthcare professionals to provide an efficient and quality service to patients.

Pharmacy supports clinical trials for cancer patients by providing compounding, dispensing and full accountability for clinical trial medications. Pharmacy also coordinates several compassionate/expanded access schemes for cancer patients. These services enable patients to access new and innovative treatments before full licence/reimbursement status is granted.

During 2023:

- 19,858 individual patient items were dispensed from the Aseptic Compounding Unit – this includes 1,563 clinical trial items, and 613 compassionate scheme items.
- Plans commenced for pharmacist involvement in oral anti-cancer medications (OAMs) in the cancer service. An initial audit is planned for early 2024 which will inform further decisions around development of this aspect of the pharmacy service.

SECTION 5

Quality



Quality of the standard of care is at the heart of the St Vincent's UCD Cancer Centre. Our patient treatment and research processes are quality assured, transparent and subject to continuous improvement. Annual internal audits and management reviews ensure the achievement of quality management objectives, with a sustained focus on patient and staff safety. Both St Vincent's University Hospital and St Vincent's Private Hospital are accredited by Joint Commission International (JCI) with the former holding accreditation of an Academic Medical Centre.

Accreditation



Joint Commission International (JCI)

At the forefront of healthcare quality and patient safety standards globally, Joint Commission International (JCI) leads the way in accrediting healthcare organisations worldwide. St. Vincent's Healthcare Group stands alone in having two JCI accredited hospitals within its scope, one of which is the first and only Model 4 hospital to be JCI accredited nationally to date.

This underlines the continuous commitment of the organisation to positioning high standards of patient care and safety at the centre of the patient journey.

Academic Medical Centre Excellence

JCI's rigorous standards are designed to acknowledge the significant contributions that large academic healthcare centres, like St. Vincent's Healthcare Group, make to both their patients and the community. The Academic Medical Centre Standards set additional benchmarks, requiring institutions to excel in areas such as Medical Professional Education and Research Programmes. This ensures processes are developed to provide ongoing oversight and guidance to education and research programmes, irrespective of which entity is affiliated with or sponsors the programmes.

Commitment to Excellence

St Vincent's Healthcare Group has consistently demonstrated a commitment to excellence by achieving re-accreditation for both St Vincent's University Hospital and St Vincent's Private Hospital. Most recently St Vincent's University Hospital achieved the designation of Academic Medical Centre.

Choosing St. Vincent's Healthcare Group means choosing healthcare excellence and a commitment to providing world-class medical education and research initiatives.



European Society of Gynaecological Oncology (ESGO): Leading in Gynae-Oncology Excellence

In July 2021, the UCD Gynaecological Oncology Group (UCD-GOG), comprising Mater Misericordiae University Hospital, St. Vincent's University Hospital, and University College Dublin, achieved accreditation from ESGO as a recognized centre for Gynae-oncology Training. Building on the group's 2020 accreditation for Advanced Ovarian Cancer Surgery, UCD-GOG stands as the largest Gynaecological Oncology Group in the country, catering to over two million individuals.

Comprehensive Gynae-Oncology Treatment

UCD-GOG offers specialised treatment for all types of gynaecological cancers, including advanced surgery, radiotherapy, and chemotherapy. The group receives 500 new referrals annually from across the country and treats nearly 400 new cancers each year.



Accreditation

JAG Accreditation

St. Vincent's University Hospital and St. Vincent's Private Hospital are both accredited by the Joint Advisory Group (JAG) on Gastrointestinal Endoscopy, whose purpose is to ensure that each endoscopy service has the skills, resources and motivation necessary to provide the highest quality, timely, patient centred care.

Do we have any?

- Patient satisfaction measures.
- Nursing metrics
- Nutrition metrics
- Pressure ulcers and falls data
- Healthcare associated infections

International Accreditation System for Interventional Oncology Services (IASIOS) Accreditation



The Interventional Radiology Department of St. Vincent's Healthcare Group (SVHG) has become the first centre in Ireland to receive the prestigious IASIOS Accredited Centre seal.

This significant recognition underscores our unwavering commitment to excellence in Interventional Oncology and highlights the dedicated efforts of our entire team.

The accreditation has confirmed that our Interventional Radiology team are providing state of the art patient care in Interventional Oncology (IO). The IASIOS programme ensures we deliver the highest quality in interventional oncology services worldwide and we are honoured to meet this standard. This accreditation benefits our patients by enhancing treatment outcomes and care while supporting our staff with access to the latest knowledge and best practices. This achievement reinforces our commitment to raising the standard of cancer care, both here in Ireland and on the global stage. We look forward to continuing our work in advancing interventional oncology and improving the lives of our patients.

1st Adult Stem Cell Transplant service in Ireland to achieve JACIE accreditation

Following a four-year application process, St Vincent's Stem Cell Transplant programme was awarded JACIE² accreditation in June 2023. This makes St Vincent's the first adult autologous programme in Ireland to receive this prestigious accolade. The Hematopoietic Stem Cell Transplant (HSCT) programme, established in 1995 at the hospital, has been providing exceptional care to patients with solid and haematological malignancies who undergo high-dose chemotherapy with stem cell rescue.

JACIE, Europe's only official accreditation body in the field of HSCT and cellular therapy, promotes excellence in patient care, medical practice, and laboratory procedures through a voluntary, profession-led accreditation scheme. Recent studies have shown that JACIE accreditation leads to improved patient outcomes, reduced transplant-related morbidity and mortality, and closer alignment with international consensus on HSCT indications and management.

2 The Joint Accreditation Committee ISCT-Europe & EBMT (JACIE) is Europe's only official accreditation body in the field of haematopoietic cell transplantation (HCT) and cellular therapy (CT). It promotes high-quality patient care and medical and laboratory practice through a profession-led, voluntary accreditation scheme.

SECTION 6

Research

Bringing Discoveries to Clinic and Back Again: Connecting the Dots



Prof. William Gallagher
Scientific Director

Cancer research is not a luxury – it is a necessary part of 21st century cancer care.

At St Vincent's UCD Cancer Centre, we benefit from housing many of Ireland's leading cancer researchers across a wide spectrum of domains, spanning basic, translational and clinical research. A key focus of our emerging research strategy will be to ensure effective integration of cutting-edge research with world-class clinical care, thereby bridging the gap between scientific discoveries and better patient management, including access to novel treatments and other interventions.

Our core scientific mission is to act as a hub for multidisciplinary collaboration, encouraging partnerships with other academic and clinical institutions across the island of Ireland and externally, international research bodies, patients, funders, and industry. By fostering these relationships, the Cancer Centre will further accelerate the translation of scientific discoveries into effective clinical interventions.

Over the last year, considerable progress has been achieved through the dedicated actions of the UCD Cancer Trials Cluster team, led by Prof. Michaela Higgins, with great support from Dr Chris Crockford, in enriching the wider ecosystem for clinical trials operation. The tagline of this Cluster is '*health through innovation and excellence*', which is being met by facilitating patient access to novel treatments in early developmental stages. Through these clinical trials, the Cancer Centre is contributing to global advancements in oncology, as well as excelling at a national level in terms of accrual rates. Additional supports are being put in place to further enhance this critical research function, as it is a key element of our pathway towards accreditation.

Continued success has also been achieved in leadership terms of large-scale national and international cancer research programmes. Noteworthy achievements include progression of the Precision Oncology Ireland (www.precisiononcology.ie) project, led by Prof. Walter Kolch, through mid-term review, and encouragement for a successor programme. In addition, the All-Island Cancer Research Institute (AICRI; www.aicri.org), co-led by myself and various colleagues across Ireland, has experienced dramatic growth, including the award of €12 million in cross-border projects in precision cancer medicine, digital health and liquid biopsies, funded under the HEA North South Research Programme. One of these projects, *AICRIstart* (<https://www.aicri.org/aicristart>), which is directly led from the Cancer Centre, is training the next generation of cancer researchers in precision cancer medicine across 10 academic and affiliated clinical institutions in Ireland and Northern Ireland, in partnership with Cancer Trials Ireland.

Cancer Centre investigators are also playing leading roles in cancer projects at the European level, including in the area of prostate cancer screening (Prof. David Galvin, *PRAISE-U* project; www.uroweb.org/praise-u) and the development of a National Cancer Mission Hub in Ireland (ECHO-S project; www.cancermissionhubs.ie).

A primary aim for the coming year will be develop approaches for better integration of research activities across different sites towards a common purpose. This will be greatly aided by a new Research Committee, to be chaired by Prof. Grainne O'Kane, will aid in the formation of thematic groups and cross-cutting platforms to aid our cancer research ecosystem.

To encourage greater collaboration between academic and clinical colleagues, the Cancer Centre has already actively participated and run several events under the UCD Cancer Research Symposium banner. This has brought different elements of our community together and spurred new inter-disciplinary collaborations, e.g. within the area of pancreatic cancer, which are now expanding. We will actively seeking to put in place additional mechanisms to foster new and enrich emerging collaborations, as part of our first Research Strategic Plan.

Bridging the gap between research and clinical practice can lead to improved cancer outcomes, bringing hope and innovative treatments to patients. Our core activities going forward is to further integrate the distributed powerhouse of cancer research the St. Vincent's UCD Cancer Centre towards a common agenda, for the maximal benefit of patients.

Prof. William Gallagher

Scientific Director

Advancing Cancer Research

Clinical research is at the forefront of our commitment to innovation and excellence. In collaboration with partners, academic research centres, and pharmaceutical companies, the St Vincent's UCD Cancer Centre conduct extensive studies and clinical trials. Facilitated by the Cancer Clinical Research Trust (CCRT) and the UCD Cancer Trials Cluster, and supported by the UCD Clinical Research Centre, our clinical research initiatives drive progress in cancer care.

Conducting and Organising Clinical Research: Clinical Research Centre

The UCD Clinical Research Centre (CRC) is an academic-led, multi-site, patient-focused facility for clinical and translational research, seamlessly integrated under a single governance structure. Established with the strategic objective of advancing high-quality, impactful investigator-led translational and personalised medicine research, the UCD CRC aligns with UCD's vision of being a research-intensive university. Serving as the focal point for clinical research activities, the UCD CRC plays a pivotal role in supporting the 'bench to bedside' translational research continuum.



UCD Cancer Trials Cluster

The UCD Cancer Trials Cluster is a collaborative cancer research initiative by St Vincent's University Hospital, the Cancer Clinical Research Trust, the Mater Misericordiae University Hospital, University College Dublin, and the Health Research Board. Led by Professor Michaela Higgins (Consultant Medical Oncologist, St Vincent's University Hospital), the Cluster is tasked with increasing the number of patients involved in clinical research, training the next generation of clinical trialists, and implementing Public and Patient Involvement (PPI) over its lifetime (2022-2026).



The UCD Cancer Trials Cluster vision is:

"to be an internationally distinguished Cancer Trials Cluster that measurably enhances the health of cancer patients through high quality innovative clinical trial research"

In 2023, 293 people with cancer at the St Vincent's UCD Cancer Centre took part in research studies through the UCD Cancer Trials Cluster. This is an increase from an average of 95 people per year from 2017 to 2021 and included trials of novel drugs as well as cognitive behavioural interventions and biomarker studies.

Three in every five people who took part in research were enrolled in 'basket' studies, which include multiple cancer types. Instead of traditional clinical trials which target only one specific cancer type, these studies invite patients with similarities in their cancer's genetic makeup, symptom profile, or demographic characteristics to enrol.

In addition to a threefold increase in the number of people enrolled in studies, 2023 saw the establishment of the first PPI working group, the co-design and launch of the UCD Cancer Trials Cluster website. The UCD Cancer Trials Cluster has also secured funding from UCD for two new MD fellows based at St Vincent's University Hospital.

Figure 7: Number of patients enrolled on research studies over time

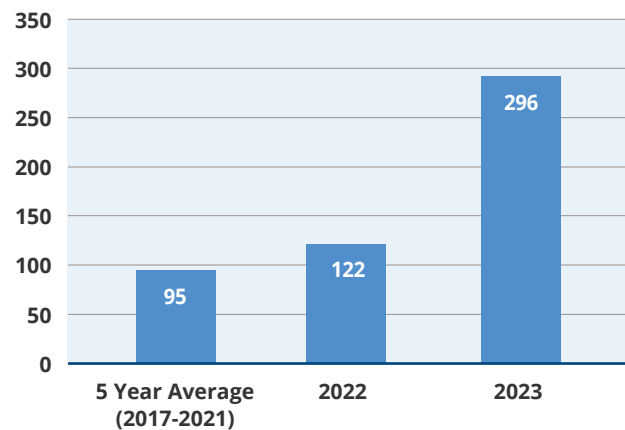
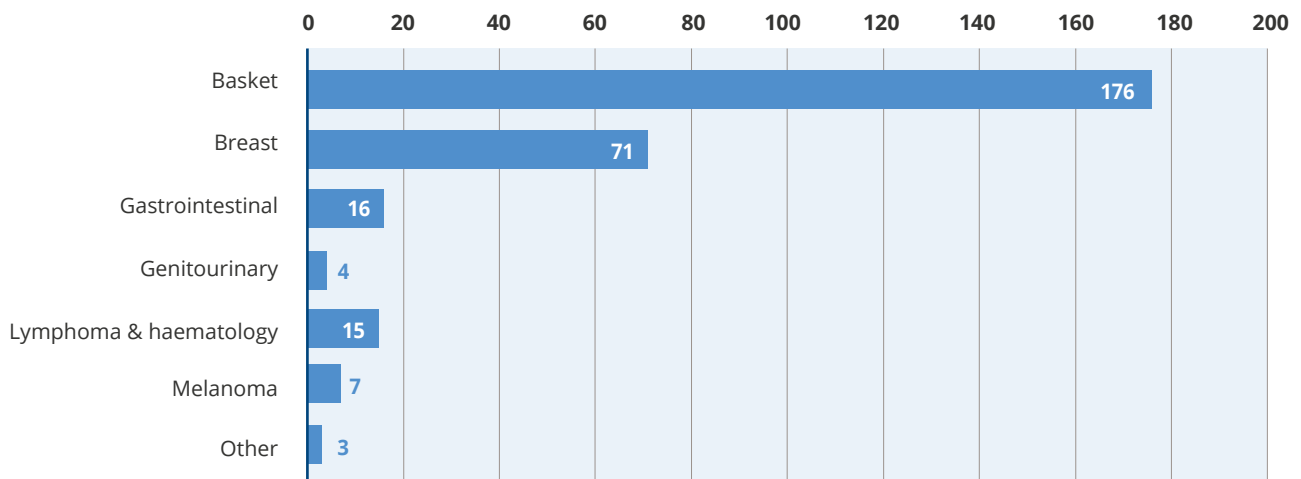


Figure 8: Number of patients enrolled into different study types in 2023



Cancer Clinical Research Trust

The Cancer Clinical Research Trust (CCRT) is a registered charity which supports a dedicated cancer research programme in St. Vincent's University Hospital and University College Dublin for over 20 years.

The CCRT team of 12 clinical trials nurses, research support staff, and an operations manager support a clinical trials programme that participates in cooperative group and pharmaceutical industry studies, as well as translational biomedical research studies.

The Irish Research Radiation Oncology Group (IRROG)

The Irish Research Radiation Oncology Group (IRROG) was established in January 2020. Led by Professor Sinead Brennan the group unifies the core public radiotherapy centres in the country – St Luke's Radiation Oncology Network (SLRON), Cork University Hospital and University Hospital Galway. Three other private centres, Beacon Hospital, Bon Secours Radiotherapy Cork and the Mater Private Hospital, are collaborators.

IRROG's mission is to improve collaboration between radiation oncology researchers and develop infrastructure to increase the number of high-quality interventional trials nationally, thereby rapidly increasing the number of patients participating in clinical trials.



IRROG National Conference 2023

IRROG's vision is to double the number of patients accessing clinical trials in line with the Irish National Cancer Strategy target of 6% of cancer patients on clinical trials.

IRROG embed public and patient involvement within all of our clinical trial activities. We achieve this through invoking the, "Nothing about us, without us" ethos which reflects the idea that patients should be engaged in every step of clinical trial development. We realize this through the involvement of members of our PPI group during the development of all of our IITs.

Each IRROG radiation oncology centres receives patient referrals from the eight designated cancer centres, such as St. Vincent's University Hospital. Since its formation IRROG, have worked closely with the Clinical Trials Unit at St Vincent's to offer more patients the opportunity to participate on radiation therapy and combined modality clinical trials.

In 2023 the following trials were available to St. Vincent's patients referred to the St Luke's Hospital IRROG Site:

Lung	
18-33 Source	Stereotactic Ablative Radiation Therapy Of UltRaCentral LUNG Tumours
Pancreas	
17- 12 IMRT Pancreas	A non-randomised Phase I/II study of dose-escalated hypofractionated Dose-Painted Intensity Modulated Radiotherapy (DP-IMRT) in resectable/borderline resectable pancreatic adenocarcinoma
Head and Neck	
20-04 Preserve	Preservation of Swallowing in Resected Oral Cavity Squamous Cell Carcinoma: Examining Radiation Volume Effects (PRESERVE): A Randomized Trial
Basket	
19-21 COMET	Preservation of Swallowing in Resected Oral Cavity Squamous Cell Carcinoma: Examining Radiation Volume Effects (PRESERVE): A Randomized Trial

St Vincent's UCD Cancer Centre and IRROG worked particularly closely on the development and initiation of the IMRT Pancreas investigator initiated trial in 2023. This is a collaborative trial run between the St Luke's Hospital Clinical Trials Unit and the St. Vincent's Clinical Trials Unit with Dr. Gerard McVey as Principal Investigator. In 2023 a number of trials were prepared to open at St. Luke's Hospital, Rathgar for St. Vincent's patients including; 23-24 OPEN Head and Neck Trial, 19-03 EXPERT BIG Breast Trial and the 21-28 E2-Radiate Observational Basket Study.

Centre for Colorectal Research

The Centre for Colorectal Disease at St. Vincent's University Hospital encompasses patient care, educational research and clinical research – with the ultimate aim of improving clinical management of patients. The Centre's priority is to achieve a complete understanding of the mechanisms behind colorectal cancer and inflammatory bowel disease (IBD) through translational and clinical research.

Key research goals in colorectal cancer include:

- Understanding how the local tissue environment of the gut impacts on the immune response to cancer.
- Development and translation to the clinic of new methods for the molecular and pathological classification of colorectal cancer.

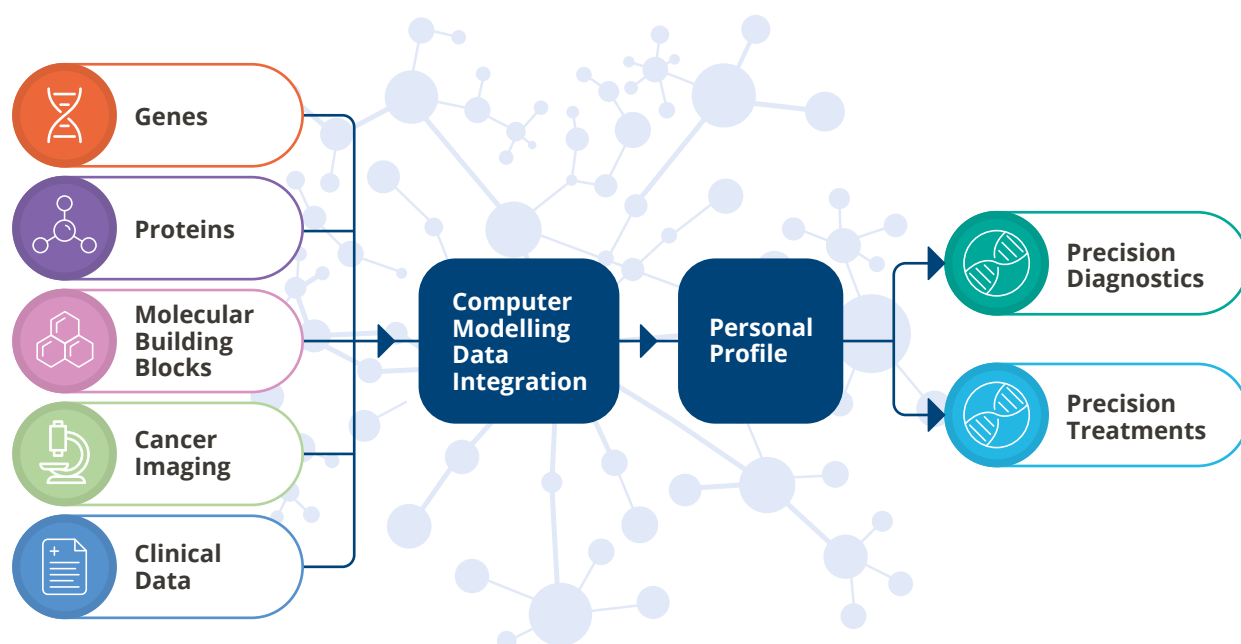
Translational Research - Bridging Lab Discoveries to Patient Health

Translational research plays a pivotal role in transforming observations in the laboratory, clinic, and community into interventions that enhance individual and public health. At the St. Vincent's UCD Cancer Centre, we prioritise translational research to understand cancer better, identify diagnostic markers, predict treatment responses, and improve patient prognosis.

Precision Oncology Ireland (POI)

Precision Oncology Ireland (www.precisiononcologyireland.ie) is a collaborative consortium comprising of five Irish universities, six Irish charities, and seven industry partners, with the objective of developing novel diagnostics and therapeutics for personalised cancer treatment. Launched officially in November 2019, this consortium receives partial funding from Science Foundation Ireland through their Strategic Partnership Programme. The coordination is overseen by Systems Biology Ireland, which is led by Prof Walter Kolch, Director of Systems Biology Ireland in UCD, a distinguished advocate of precision medicine at international level. Assisting him as Deputy Director is Prof William Gallagher, Scientific Director, St Vincent's UCD Cancer Centre.

Precision Oncology Ireland uses cutting-edge technologies to generate unique genetic and molecular profiles for each patient's cancer. The key competitive advantage of the programme lies in the innovative computational methods applied to make sense of these profiles, and decipher what drives each individual cancer. The results will be better cancer diagnostics, personalised cancer treatment, and faster drug discovery and development.



The outcomes of this research programme ranges from diagnostic tests for cancer based on personal molecular markers, novel drugs which specifically target cancer cells, and improved synergistic drug combinations. The programme also provides key infrastructural supports to researchers, co-ordinating access to tumour biobanks, and allowing access to state-of-the-art technologies.

Precision Oncology Ireland uses cutting-edge technologies to generate unique genetic and molecular profiles for each patient's cancer.

Key Research Goals



Develop more accurate **Precision Diagnostics** for cancer detection, monitoring & treatment response



Develop more effective **Precision Treatments** identifying new drug targets, combinations & delivery methods



Explore the potential of the **Tumour Microenvironment** as a diagnostic & therapeutic target in cancer



Provide support for crucial research **Resources & Infrastructure** in keys areas like biobanking, sequencing and imaging

POI research spans the spectrum from early-stage research focused on better understanding the disease, all the way through to diagnostics and treatments in testing. Through collaboration, POI accelerates the development of new diagnostics and treatments, and allows patients to benefit from research advances at an earlier stage.

All-Island Cancer Research Institute (AICRI)

The All-Island Cancer Research Institute (www.aicri.org) is a virtual institute designed to enhance our understanding of cancer, develop more personalised treatment options, and alleviate suffering while saving lives. Through a collaborative North/South Ireland effort, AICRI leverages the collective expertise of cancer researchers across the island to address cancer comprehensively. This collaboration extends to counterparts in the US and other regions. AICRI provides a comprehensive framework for cancer research, from discovery to implementation, benefitting both cancer patients and society at large.

AICRI's aim is to establish a virtual all island cancer research institute, one that gains a better understanding of cancer, develops a more personalised treatment options and eases suffering of patients and save lives.

AICRI's ambition is to become a global leader in cancer research that will also help to deepen North/South collaboration and strengthen social, economic and political links on the island of Ireland.

Mission and focus

AICRI will bring together the combined strengths of cancer researchers on this island of Ireland to tackle cancer, linking with US and other international colleagues. Our mission is to provide an overarching framework for cancer research across the island of Ireland, from discovery to implementation, for the benefit of cancer patients and wider society. Progressing the vision of AICRI, our ethos is **"With the patient; around the patient; for the patient"**.

AICRI's Research Programmes comprises four main Research Pillars:

1. Cancer Prevention
2. Cancer Diagnosis
3. Cancer Treatment
4. Survivorship/Quality of life

Patient Wellbeing and Involvement

UCD Centre in Translational Oncology

The UCD Centre in Translational Oncology (UCTO) stands as a collaborative hub, spanning across various UCD schools and affiliated institutes, including the Conway Institute, Systems Biology Ireland, and the St. Vincent's UCD Cancer Centre. With representation from Mater Misericordiae University Hospital and Children's Health Ireland, these institutions collectively form three of the nine designated cancer centres of excellence in Ireland. The amalgamation of clinical and research expertise within the UCTO fosters multidisciplinary research, promising to enhance patient care across all ages and cancer types.



Patient Voice in Cancer Research

The Patient Voice in Cancer Research initiative actively involves cancer patients, researchers, and stakeholders, including patient advocates, families, carers, and policymakers. This initiative aims to build vital connections between patients and cancer researchers, striving to:

- Facilitate a two-way dialogue, promoting open communication.
- Provide education and training to enhance communication, positioning cancer research as a joint venture to overcome the disease and improve the quality of life and survivorship post-treatment.
- Improve the broader community's understanding of cancer research through clear and concise messaging.
- Inform policy-makers and healthcare professionals about research needs that will benefit cancer patients.
- Offer greater clarity to patients regarding the capture, collection, management, and use of data in cancer research.

This initiative began in 2016 with the aim of actively engaging cancer patients, cancer researchers and others (patient advocates, families, carers, healthcare professionals and policy-makers) in discussions and decision-making processes that positively impact on cancer research and outcomes for patients.

Our vision is to build connections between patients and cancer researchers. We provide education and training for patients and cancer researchers to improve communication and ensure that cancer research is seen as a joint venture to overcome the disease and improve quality of life during and post treatment.

Mission

The Patient Voice in Cancer Research (PVCR) is an initiative to actively engage cancer patients, cancer researchers and other interested parties (patient advocates, families, carers, healthcare professionals, policy-makers and those with an interest in cancer research) in discussions and decision-making processes, which positively impact on cancer research and outcomes for patients.

Publications



220

Total Number of Publications



40

Number of Publications with an Impact Factor (IF) > 10

Grants



19

National/EU Funded Grants



24

National/International Foundation Grants



2

Industry Grants

Open Studies

Cancer: Bladder Cancer

Name: BO42843 (IMvigor011)

Purpose: To compare a drug called Atezolizumab with a placebo in patients. The study will investigate if Atezolizumab, given after surgery, can prevent the cancer from returning.

For People with: High-Risk Muscle-Invasive Bladder Cancer who are ctDNA positive following cystectomy

Cancer: Bone

Name: Median-Ph2 INBRX-109

Purpose: This Phase 2 study is testing a treatment called INBRX-109 for conventional chondrosarcoma. The study will compare the effectiveness of INBRX-109 to a placebo in patients at any stage of treatment.

For People with: People with conventional chondrosarcoma, unresectable (inoperable) or metastatic

Cancer: Breast

Name: EPIK-B5

Purpose: To compare a drug called alpelisib in combination with another drug called fulvestrant in treating advanced breast cancer. Participants in placebo group who show signs of progression will be able to access the non-placebo drug.

For People with: HR-positive, HER2-negative advanced breast cancer (men and post-menopausal women) with a PIK3CA mutation who progressed or relapsed on or after treatment with an AI plus a CDK4/6 inhibitor.

Cancer: Breast

Name: J2J-MC-JZLH / Ember 4

Purpose: Study of adjuvant imlunestrant vs standard adjuvant endocrine therapy

For People with: Previously received 2 to 5 years of adjuvant endocrine therapy for ER+, HER2-early breast cancer with an increased risk of recurrence.

Cancer: Breast

Name: KEYNOTE-B49 (MK-3475 B49)

Purpose: To determine if adding a drug called Pembrolizumab to chemotherapy is better than adding a placebo in treating a specific type of breast cancer that has come back or spread. The outcome being measured is Progression-Free Survival or overall survival in patients with a certain level of a protein called PD-L1

For People with: Chemotherapy-Candidate Hormone Receptor-Positive, Human Epidermal Growth Factor Receptor 2-Negative (HR+/HER2-) Locally Recurrent Inoperable or Metastatic Breast Cancer.



Cancer: Breast

Name: Ovarian Escape

Purpose: To determine how common is 'ovarian escape' in women receiving ovarian function suppression

For People with: Premenopausal women receiving ovarian function suppression and endocrine therapy for early-stage and metastatic hormone receptor- positive, human epidermal growth factor receptor 2-negative (HR+/HER2-) breast cancer

Cancer: Breast

Name: SIGNATURE Study

Purpose: To explore the potential use of exosomes, isolated from the blood of patients diagnosed with TNBC (triple negative breast cancer), as a personal biomarker for the individual.

For People with: People with triple negative breast cancer

Cancer: Colorectal

Name: Mountaineer 03 (SGNTUC 029)

Purpose: Comparison of Tucatinib + Trastuzumab + mFOLFOX6 against mFOLFOX6 alone or with Cetuximab or Bevacizumab

For People with: HER2+ metastatic colorectal cancer who have not received any previous systemic anti-cancer therapy for metastatic colorectal cancer

Cancer: Gastric/Stomach

Name: FORTITUDE-101

Purpose: Study of Bemarituzumab plus Chemotherapy versus Placebo plus Chemotherapy.

For People with: Previously untreated advanced gastric or gastroesophageal junction cancer with FGFR2b overexpression

Cancer: Lung

Name: Latify

Purpose: Study of Ceralasertib + Durvalumab versus Docetaxel

For People with: People with non-small cell lung cancer (NSCLC) whose disease progressed on or after prior anti PD (L)1 therapy and platinum based chemotherapy

Cancer: Mixed/Basket Trials

Name: MC-F106C-101_IAB14031

Purpose: First-in-human study of the safety and efficacy of IMC-F106C on its own and in combination with checkpointinhibitors

For People with: HLA-A*02:01 positive, PRAME positive tumour, and relapsed from, refractory to, or intolerant of standard therapy.

Cancer: Mixed/Basket Trials

Name: MK-7339-002 / LYNK-002

Purpose: Study of Olaparib effectiveness and safety

For People with: People with previously treated advanced cancer with either a) homologous recombination repair mutation (HRRm) or b) homologous recombination deficiency (HRD)

Cancer: Mixed/Basket

Name: Palliative care and Oncology Survey on Terminology (POST)

Purpose: Examine what individuals known to palliative care and oncology services think about the terminology used to describe them.

For People with: People with cancer, availing of inpatient or outpatients.

Cancer: Mixed/Basket

Name: Sleepio Study

Purpose: This study will examine the efficacy of digital cognitive behavioural therapy for insomnia (dCBT-I) compared to sleep hygiene education in treating symptoms of insomnia

For People with: Women over the age of 18 with a current or prior cancer diagnosis who have clinical insomnia

Cancer: Mixed/Basket

Name: WAYFIND-R

Purpose: Understand the natural history of solid tumour cancers

For People with: People profiled with a next generation sequencing test

Cancer: Pancreatic

Name: Astellas Claudin 18.2 / 8951-CL-5201

Purpose: Evaluate the effectiveness and safety of a drug called Zolbetuximab (also known as IMAB362) in combination with Nab-Paclitaxel and Gemcitabine (Nab-P + GEM) as the first treatment

For People with: Individuals with a specific type of pancreatic cancer called metastatic pancreatic adenocarcinoma, where the cancer cells have a protein called Claudin 18.2 (CLDN18.2) on their surface

Cancer: Pancreatic

Name: PaTch 20-27

Purpose: This study is designed to investigate the means by which treatment-resistant pancreatic cancer can be overcome by a combination of an established anticancer drug, trametinib, with hydroxychloroquine

For People with: People with pathologically confirmed advanced metastatic pancreatic adenocarcinoma or poorly differentiated pancreatic adenocarcinoma. Individuals must have previously received at least one line of systemic therapy for their metastatic disease and are not eligible for surgical resection.



Cancer: Prostate

Name: IRONMAN

Purpose: Prostate Cancer Outcomes: An International Registry to Improve Outcomes in Men with Advanced Prostate Cancer/ IRONMAN

For People with: Men with Metastatic Hormone Sensitive Prostate Cancer (mHSPC), Castration Resistant Prostate Cancer (CRPC), and men with prostate cancer who have mixed histological types.

Cancer: Prostate

Name: PEACE-6

Purpose: Compare the effectiveness and safety of a combination treatment called androgen deprivation therapy (ADT) with or without darolutamide in frail men who have recently been diagnosed with advanced prostate cancer.

For People with: Men with prostate cancer whose cancer has recently become metastatic

Cancer: Skin

Name: Regeneron R3767-ONC-2011

Purpose: The primary objective of the study is to assess if Fianlimab + Cemiplimab is superior to Pembrolizumab in treating melanoma, as measured by progression-free survival (PFS)

For People with: Patients with advanced melanoma that cannot be surgically removed (Stage III or Stage IV)

Cancer: Skin

Name: Regeneron R2810-ONC-1788 (C-POST)

Purpose: This study assesses the efficacy of adjuvant Cemiplimab versus placebo after surgery and radiation therapy in patients with cutaneous squamous cell carcinoma

For People with: For patients with high risk cutaneous squamous cell carcinoma who had oncologic surgery and radiation therapy

Cancer: Skin

Name: Regeneron R3767-Onc-2055

Purpose: A phase 3 trial of Fianlimab (Anti-LAG-3) and Cemiplimab versus Pembrolizumab in the adjuvant setting in patients with completely resected high-risk melanoma

For People with: Patients with histologically confirmed unresectable Stage III and Stage IV (metastatic) melanoma who have not received prior systemic therapy for advanced unresectable disease. Not suitable for people with uveal melanoma.



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