Canolfan Ymchwil Canser Cymru | Wales Cancer Research Centre

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

Ariennir gan Lywodraeth Cymru
Funded by Welsh Government

2020-2025 End of Award Report

Contents

Front cover photo: Dr Karam Aboud, All Wales Genomics Lab/Cardiff University and Professor Mererid Evans, Director, WCRC, at the Wales Cancer Research Conference 2025.

Introduction

I am pleased to present the 2025 stakeholder report for the Wales Cancer Research Centre (WCRC), reflecting on our achievements and progress over the past five years (2020-2025). We are an infrastructure funded by Welsh Government via Health and Care Research Wales and based at Cardiff University, providing strategic oversight, encouraging collaboration, and supporting innovative research aimed at improving cancer outcomes. Our mission is to serve as the front door to cancer research in Wales. This report highlights the strides we've made in the development and expansion of cancer research across Wales, as well as the impactful work being carried out by our dedicated researchers and partners.

Our mission is to serve as the front door to cancer research in Wales

Since our inception, the WCRC has focused on enhancing the cancer research community within Wales. We have placed particular emphasis on the six priority research themes identified in the Wales Cancer Research Strategy (CReSt), which was launched in 2022. These themes (precision and mechanistic oncology, immuno-oncology, radiotherapy, cancer clinical trials, supportive and palliative oncology, and population-based cancer prevention and early detection) have been the cornerstone of our efforts to drive world-class cancer research and translate that research into real-world benefits for patients.

Over the last five years, we have seen significant growth in both the scale and scope of cancer research in Wales. Notably, we have supported the recruitment of approximately 46 cancer researchers across seven organisations, including Cardiff, Swansea, and Bangor Universities, Velindre University NHS Trust, Cardiff and Vale University Health Board (UHB), Betsi Cadwaladr UHB and Swansea Bay UHB. These researchers, spanning disciplines from discovery science to clinical trials, are working tirelessly to address the complex challenges posed by cancer. The WCRC has worked collaboratively with numerous stakeholders, including academic institutions, NHS organisations, third-sector partners, and industry collaborators. This collective approach has not only enhanced the cancer research capacity in Wales, but has also positioned us to attract further investment, ensuring that we can continue to push the boundaries of cancer research and innovation.

A highlight from this period has been running two Wales Cancer Research Conferences (2024 and 2025) which brought together leading cancer researchers from across Wales and beyond. These events enabled valuable collaborations, strengthened networks, and provided a platform for emerging research talent to showcase their work.

As we reflect on the last five years, it is clear that we have made substantial progress in building a vibrant, high-performing cancer research community in Wales. However, our work is far from finished. Looking ahead, we remain committed to furthering our mission to grow and enhance the cancer research base in Wales, creating more opportunities for future leaders in the field, and ensuring that the transformative potential of cancer research reaches all those who can benefit from it.

I would like to express my gratitude to all those who have contributed to our success over the past five years. To our researchers, our partners, and all the stakeholders who have supported us - thank you for your ongoing dedication and commitment. Together, we will continue to shape the future of cancer research in Wales and beyond.

Diolch yn fawr iawn,

Professor Mererid Evans, Director, Wales Cancer Research Centre.

Centre Structure 2024/2025

Over the past five years, the WCRC has undergone significant changes, adapting to emerging challenges and opportunities in the field of cancer research. Since 2021, under the leadership of Director Professor Mererid Evans, the Centre has refined its framework to ensure efficiency, inclusivity, and strategic alignment with its core mission. To support this ongoing development, the WCRC team has updated the working groups and governance structures, ensuring they reflect the Centre's expanding scope and dynamic research priorities. The current Centre leadership and delivery structure is as follows and receives advice and oversight from an External Advisory Board, WCRC/CReSt Steering Committee and a CReSt Leadership Group.

WCRC Academic Leadership

★ = Member of WCRC senior leadership group

Prof. Mererid Evans ★
Director

Prof. Duncan Baird ★
Associate Director

Prof. Sunil Dolwani ★
Associate Director

Prof. Helen Pearson ★
Associate Director

WCRC Hub Team

Jenni Macdougall
Strategy

Dr Ceri Morris
Operations

Plus ~4FTE of comms, project, scientific project manager and admin support.

WCRC Lay Research Partners

Julie Hepburn ★
Lead Research Partner

Bob McAlister
CReSt Research Partner

Plus 5 more Research Partners aligned to CReSt themes.

CReSt Theme Leads

Cohort of 12 academic leaders responsible for:

- coordinating research activity for their theme.
- acting as champions for research in their area.
- identifying opportunities for collective progress within and across thematic areas.

WCRC Funded Researchers

Cohort of researchers funded or part-funded by WCRC based at:

- Cardiff University
- Swansea University
- Bangor University
- Velindre University NHS Trust
- Cardiff and Vale University Health Board
- Swansea Bay University Health Board
- Betsi Cadwaladr University Health Board

Core Metrics

Reporting Period: 2020/2025

Health and Care Research Wales infrastructure award to the group

Direct funding awarded

£4.875M

Jobs created through direct funding

CV 52

Grants won during reporting period

Grants won	Led by group	Group collaborating
Number	91	21
Value	£25.4M	£38.3M
Funding to Wales	£25.0M	£5.8M
Funding to group	£21.4M	£2.9M
Additional jobs created for Wales	72	18
Additional jobs created for group	65	13

246

Number of publications

65

Number of public engagement events

730

Number of public involvement opportunities

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

Ariennir gan **Lywodraeth Cymru**
Funded by **Welsh Government**

KEY ACHIEVEMENTS 2020-25

111 Grants that brought **£30.8m** into Wales from >50 funders

46 Researchers funded across **7** institutions

STRATEGIC LEADERSHIP

Launch of CReSt (2022) & Cardiff Cancer Research Hub (2024-5)

Additional £1m awarded to accelerate CReSt implementation in bioinformatics, cancer data and programme development

Co-production of PIRIT

PIRIT
Public Involvement in Research Impact Toolkit

Downloaded >1600 times by users from >30 countries

Bringing people together

45 Multi-Disciplinary Research Groups meetings across 8 disciplines

5 Wales Cancer Bioinformatic Network meetings (2024-5)

3 Early and Mid Career Researchers Network meetings (since January 2025)

WCRC Conference 2025 attracted

>300 delegates and

>100 posters

3 Patents stemming from WCRC researchers' work

WCRC Highlights and Areas of Impact

CReSt: Strengthening Research Foundations

The launch of CReSt and catalysing cancer research in Wales.

Fostering Research Collaboration

Brokering collaboration (networks/working groups, conference).

Investing in Research Talent

Building research capacity (funding academic and clinical posts).

Supporting Research Infrastructure

Delivering research-enabling activity (patient and public involvement, comms, engagement).

CReSt: Strengthening Research Foundations

The launch of CReSt and catalysing cancer research in Wales

Launched in July 2022, CReSt is the first all-Wales cancer research strategy, providing a unified direction for cancer research across the nation. Developed by Health and Care Research Wales, the Wales Cancer Network, and the WCRC, the strategy has received widespread support from Health Boards, universities, and industry groups. Emphasising collective responsibility and a focus on deepening areas of research strength, CReSt promotes collaboration across the research community under six themes:

- **Precision and mechanistic oncology**
- **Immuno-oncology**
- **Radiotherapy**
- **Cancer clinical trials**
- **Palliative and supportive oncology**
- **Prevention, early detection, primary care and health services research**

Researcher Coordination

- Assign research leaders to coordinate thematic activity.
- Establish a Wales Cancer Strategy Leadership group, to bring the research community together and develop an implementation plan.
- Focus future investment around the six themes.

WCRC is coordinating CReSt delivery, and we have dedicated academic leads for each of the CReSt themes, who convene quarterly as the CReSt Leadership Group. With their input, WCRC has delivered theme-specific workshops open to the research community as a whole, as well as other cross-theme meetings. Abstracts and posters at our annual conference give researchers visibility of the current research across Wales, and our Brain and Urology multidisciplinary research groups continue to develop collaborative research.

When developing WCRC's implementation plans for 2023-25 and 2025-30, we reached out widely to stimulate new co-funding partnerships with HEIs and the NHS across Wales. This has been fruitful in enabling groups with strong ideas and local institutional support to build their critical mass in CReSt themes.

CReSt: Strengthening Research Foundations

Research Enablers

- Identify research workforce gaps and career pathway needs.
- Support development of new cancer research infrastructure, including the tripartite NHS/Academic Cardiff Cancer Research Hub.
- Explore future funding opportunities.
- Explore commercial income sources for research.

A £1M Health and Care Research Wales CReSt catalytic award, developed by WCRC with input from the CReSt leadership group, has supported research-enabling activity in areas that span multiple CReSt themes. Through this we:

- Increased bioinformatics capacity by offering analytical support and training, and introducing a Wales Cancer Bioinformatics Network.
- Started to 'unlock' cancer data sets for research use, working with the SAIL databank to produce Data Explained reports to help cancer researchers to navigate and run a cancer data showcase event.
- Supported early career posts to enable talented mid-career reseachers to scale up their work and move towards larger research funding.

Driving cancer research through data, innovation, and collaboration.

Infrastructure is key to a stable research environment. The Cardiff Cancer Research Hub (CCRH) has been steadily building its capacity, with resources from Velindre University NHS Trust, Cardiff University and Cardiff and Vale University Health Board. WCRC has been supporting this key development for Wales both by provision of leadership and co-funding of clinical research posts to work on CCRH trials. We have also seen other infrastructure bids succeed in areas where WCRC has supported a growth of critical mass, including the new Health and Care Research Wales-funded Wales Applied Virology Unit (WAVU).

In terms of career pathways, WCRC has established an early- and mid-career cancer researcher network, providing peer support and training opportunities; and we have worked with Swansea University, Swansea Bay UHB and Velindre to win five-year funding for a radiotherapy medical physics thesis scheme, offering clinically-applied projects that may lead students on to a PhD or further research.

On the funding side, a strong set of research ideas developed within the WCRC's Brain Multi-Disciplinary Research Group (MDRG) preceded the setup of Cancer Research Wales' dedicated brain cancer funding scheme, BATRI; and the Wales Cancer Networked industry forum is also providing a space for researchers to interact with pharmaceutical and medical device companies, as a precursor to research partnerships.

Together, these efforts are not only supporting the implementation of the CReSt strategy but also laying the groundwork for sustainable, world-class cancer research driven by data, innovation, and collaboration.

CReSt: Strengthening Research Foundations

Shared Responsibility

- Have collective responsibility for the future of cancer research in Wales.

All WCRC's work is targeted at the recommendations in CReSt, but the strategy noted that organisations across Wales need take collective responsibility for progress. Indeed, we have seen a number of commitments within organisations since 2022 that prioritise cancer research, for example:

- The Wales Cancer Network launched the Cancer Improvement Plan for NHS Wales 2023-2026, which includes research priorities around clinical trial uptake and capacity.
- The Welsh Government's Tackling Cancer initiative aims to transform cancer outcomes for Wales, and includes a workstream on delivering research through strategic commercial partnerships.
- The Voluntary Scheme for Branded Medicines, Pricing, Access and Growth (VPAG) has provided £22M to enable Wales to strengthen the research delivery infrastructure to deliver more commercial research, including cancer trials.

WCRC leaders have given input into all these advances, and we welcome the ongoing interest at a senior level in moving these forward.

Delivering cancer research is a shared national responsibility.

Investing in Research Talent

Building research capacity

TeloNostiX – advancing cancer and genetic testing

TeloNostiX, a Cardiff University spin-out, is transforming how doctors diagnose certain rare genetic conditions known as telomere biology disorders (TBDs). Using a test called HT-STELA, developed by Professor Duncan Baird's team and led by WCRC researcher and Research Director Dr Kevin Norris (WCRC funded 2015-2025), TeloNostiX provides fast and accurate telomere testing. This helps identify people at higher risk of illness and improves the detection of TBDs. The company has also developed new tools to support earlier diagnosis of hard-to-spot cancers.

With an accredited lab delivering results in just six days, TeloNostiX is improving NHS testing services across the UK and beyond. Professor Duncan Baird (CReSt theme 1 lead), who has held CRUK Discovery Programme Awards and a Senior Fellowship since 2005 (renewed in 2020 with £1.9M), has been instrumental in leading these advancements.

Dr Kevin Norris, a WCRC-funded Research Associate since 2015, has played a key role in translating discovery science into clinical applications. His work has helped secure additional funding, including a £119K clinical fellowship grant for glioblastoma research and a $2.3M NIH grant (£447K to Cardiff University in 2022) to further support discovery science and enhance the impact of TeloNostiX's work.

> **"We believe HT-STELA is a major step forward in telomere testing, offering accurate, reliable results quickly to better support patient care"**
>
> **Dr Kevin Norris,**
> TeloNostiX Research Director
> and WCRC Researcher

From discovery science to real-world clinical impact.

Investing in Research Talent

Bringing cancer technology into clinical trials

Accession Therapeutics has received approval from the UK's Medicines and Healthcare products Regulatory Agency (MHRA) to begin the first clinical trial of TROCEPT-01, an innovative cancer immunotherapy. This treatment, originally developed in Cardiff University in Professor Alan Parker's Viral ImmunoTherapies and Advanced Therapeutics Lab (VITAL) and assisted by WCRC funded researcher Dr Mahulena Maruskova (funded 2021-2023), is now moving forward in clinical trials. TROCEPT-01 targets solid tumour carcinomas, offering the potential for better treatment outcomes by focusing drug production directly at the tumour site. The Phase 1 trial, called ATTEST, will begin at six top UK centres and will later expand to Spain.

"It's wonderful to see a treatment created at Cardiff University progress into the clinic. This achievement highlights Cardiff's crucial role in advancing cancer therapies."

Professor Alan Parker,
WCRC CReSt Theme 2 Lead and Professor of Translational Virotherapies

Targeted cancer treatments: developing antibody-drug therapies

Dr Claire Donnelly, a researcher funded by WCRC (2021-2024) and supervised by Professor Steve Conlan at Swansea University, worked on new treatments to target cancer more effectively.

Her work focused on creating antibody-drug conjugates; advanced therapies that combine antibodies with powerful cancer-killing drugs to target tumours directly while minimising harm to healthy cells.

Dr Donnelly's research has made significant progress, with her antibody-drug conjugates showing promise in targeting cancer cells more effectively. Her work has led to the development of new therapeutic approaches designed to deliver potent drugs directly to tumours, while reducing side effects on healthy tissues.

A key achievement in this progress is the securing of patents, including EP3209694B1, published in 2020, which protects the technology and strengthens its potential for clinical application.

Investing in Research Talent

Enhancing cancer research tools in Wales

The development of new tools and techniques for cancer research continues to play a vital role in improving our understanding of the disease and enhancing treatment approaches. One key development is organoids, which are 3D cell cultures that mimic organs. These models, grown from patient tumour samples, better represent tumour behaviour than traditional methods. They help researchers test treatments, study tumour biology, and understand drug resistance.

WCRC-funded researcher Dr Stephanie Burnell (funded 2018-2025) has developed a bank of tumour and healthy organoids in her lab, giving an unprecedented opportunity to discover treatments that target the tumour but spare healthy tissue. Working with clinicians and patients in South Wales, these models may be used to develop kinder and safer treatments.

Stephanie has visited experts in Utrecht, Netherlands, to improve her imaging techniques and enhance her ability to observe and analyse organoids. Importantly, the organoids Stephanie has developed are being shared with academic collaborators, as well as being at various stages of commercialisation. This marks a significant step in ensuring these models can be used by researchers worldwide to accelerate cancer research and improve patient outcomes.

"Through WCRC funding we have created a rare and valuable resource that has the potential to make a real difference in cancer research."

Dr Stephanie Burnell,
WCRC Researcher

Advancing radiotherapy in Wales: the ARC Academy initiative

The Advancing Radiotherapy Cymru (ARC) Academy, established with £3M in funding from the Moondance Foundation and Velindre's Charitable Funds, is a new all-Wales programme dedicated to enhancing radiotherapy services. WCRC clinical academic Dr James Powell (funded 2023-2025) led on the funding application and is serving as Clinical Lead for the academy.

The ARC Academy will drive forward clinical service improvements, workforce development, and new radiotherapy research. The ARC Academy has identified five key themes, one of which is 'clinically focused radiotherapy research'. As part of this, the Academy has launched a competitive funding call process to support innovative research projects across Wales.

The second funding round was completed in March 2025, resulting in four radiotherapy research projects being funded, including a collaborative project with Cardiff University. These projects have an all-Wales or regional remit. Further funding rounds are expected in 2025.

"The ARC Academy is a fantastic opportunity to work collaboratively across Wales on innovative and engaging radiotherapy-based projects that will bring benefits to patients and colleagues alike"

Dr James Powell,
Clinical Lead for ARC

Investing in Research Talent

Creating future leaders in medical physics

The Swansea University-led Radiation Medical Physics (RaMP) scheme is an initiative to support the next generation of researchers in the field of medical physics. Developed collaboratively with WCRC and others, with a focus on producing research-active investigators, it aims to develop talent that will drive future advancements in radiation-based healthcare solutions. The scheme offers clinically applied thesis projects to provide hands-on experience that directly benefits real-world medical challenges.

In January 2025, ARC Academy funding was approved to support five student projects, with applications taken in March 2025. The RaMP scheme not only nurtures future experts, but also helps bridge the gap between academic research and clinical practice.

By supporting the group developing these projects, WCRC is helping to improve radiation therapy techniques, diagnostic imaging methods, and overall healthcare outcomes.

"We are excited about the opportunity the ARC funding provides for our students, to present their valuable research in the improvement of cancer treatments to the radiotherapy world."

Dr Richard Hugtenburg,
Associate Professor of Medical Physics, Swansea University

Revolutionising lung cancer diagnosis across Wales: the QuicDNA study

Dr Magda Meissner, a medical oncologist and former WCRC-funded research fellow (2021-2022), has led an innovative lung cancer trial that aims to speed up patient diagnosis. A graduate of the Cardiff University Future Leaders in Cancer Research programme, she received a £230K Research for Patient and Public Benefit (RfPPB) grant from Health and Care Research Wales in October 2022 to support her work on the study.

The QuicDNA study, which launched in 2022, has recruited nearly 500 patients to date. This trial uses a blood test to identify cancer earlier in the diagnostic pathway, allowing clinicians to rapidly choose the most effective, personalised treatment.

The project is supported by a wide range of organisations, including the All-Wales Medical Genomics Service, Illumina Technology, Moondance Cancer Initiative and investment from multiple partner organisations, and is hosted by Aneurin Bevan University Health Board.

Following the success of the QuicDNA trial, there are now plans to expand the project under the new QuicDNA Max programme, aiming to cover additional cancer types. This research has the potential to impact millions of patients, not just in Wales, but across the world. Dr Meissner's work is transforming cancer care by paving the way for quicker, more personalised treatment for patients.

Investing in Research Talent

Supporting the development of clinical trials from inception to impact

Supporting the development of clinical trials from inception to impact former WCRC-supported researcher Dr Magda Meissner was also involved in supporting the development of clinical trials from inception to impact, and played a pivitol role in the success of the FAKTION trial, led by Professor Rob Jones. The results of this trial led to the FDA's 2023 approval of Truqap, a new treatment for oestrogen receptorpositive (ER+) breast cancer.

Launched over a decade ago, the FAKTION trial aimed to improve treatment outcomes for this common and often treatment-resistant form of breast cancer. WCRC-funded early-phase clinical trial nurses and clinical fellows were instrumental in delivering the phase 2 FAKTION trial.

This study showed that combining hormone therapy with AstraZeneca's AKT inhibitor, capivasertib, significantly improved outcomes for patients. These promising findings laid the foundation for a phase 3 trial where researchers demonstrated that patients could achieve significantly longer cancer control compared to hormone therapy alone. With more than 140 patients enrolled across 19 hospitals, the FAKTION trial has positioned Wales as a leader in global cancer research. Its success has helped to secure the first-ever FDA approval of a combination therapy for ER+, HER2-negative advanced breast cancer, marking a major milestone in the fight against the disease.

Driving virology research in Wales

WCRC researcher Dr Carly Bliss (co-funded 2022-2025) is a co-investigator of the new Wales Applied Virology Unit (WAVU), which has been awarded £3M in catalytic funding as part of Health and Care Research Wales' £49M investment in research infrastructure for 2025-30. This funding will support WAVU's mission to improve health outcomes for people affected by viral diseases through research and new intervention strategies. A partnership between Cardiff University and Public Health Wales, WAVU will focus on enhancing vaccines, developing viral-based cancer immunotherapies, and advancing genome editing applications. By integrating basic and translational virology, clinical trials, public health epidemiology, and implementation science, WAVU aims to drive meaningful improvements in patient care and public health.

"I am thrilled to be a WAVU Co-Investigator, contributing through the advancement of virus-based vaccines and cancer immunotherapies. This is a huge opportunity for virology research and innovation in Wales, and with it comes great excitement for what can be achieved."

Dr Carly Bliss,
WCRC Researcher

Investing in Research Talent

Supporting glioblastoma research in Wales

Dr Mat Clement, a research fellow funded by the WCRC (2023-2025), was awarded a prestigious Future Leaders Fellowship by the Brain Tumour Charity in 2024. This award highlights the promise of his research project, which aims to improve treatments for glioblastoma (GBM), an aggressive and currently incurable form of brain cancer. As part of a major £1M investment from Cancer Research Wales, Dr Clement's project is also one of seven initiatives to receive funding through the Brain Tumour Research Initiative programme. By focusing on T-cells, a key part of the immune system, Dr Clement seeks to unlock new ways of enhancing the body's natural defences against GBM. Drawing from his expertise in immune responses to chronic viral infections and neurodegeneration, his research could lead to new therapies for this challenging condition.

Equipping WCRC researchers to lead in cancer immunotherapy

Two WCRC researchers, Dr Carly Bliss (funded 2022-25) and Dr Mat Clement (funded 2023-2025), have been awarded Academy of Medical Sciences (AMS) Springboard awards, which provide up to £125K over two years along with tailored career support to help launch independent research careers. Dr Bliss, a lecturer at Cardiff University, is developing novel adenovirus-based cancer immunotherapies targeting pancreatic and head and neck cancers. Dr Clement, a WCRC research fellow, is investigating immune-suppressive mechanisms in glioblastoma using spatial transcriptomics to inform new immunotherapy strategies. Both researchers acknowledged WCRC's support as being vital for allowing them to generate preliminary data that contributed to their success.

Advancing patient-centred decision-making in end-of-life care

The SERENITY project, a €6 million Horizon Europe Research and Innovations funded study, continues to make significant strides in advancing the understanding and management of antithrombotic therapy (ATT) in end-of-life care, uniting a multidisciplinary team across Europe to drive meaningful change. A key aspect of this progress has been the integration of the Public Involvement in Research Impact Toolkit (PIRIT), which has been instrumental in planning and evaluating PPI across multiple work packages. WCRC researcher Dr Michelle Edwards (funded 2020-2025) alongside principal investigator and CReSt theme lead Professor Simon Noble and WCRC Research Partner Dr Kathy Seddon, are now actively engaging with stakeholders, including Velindre Voices volunteers, to refine a new CoClarity Decision Support Tool, ensuring its usability and effectiveness in shared decision-making for patients with advanced cancer. This development process, grounded in real-world insights, is shaping a more patient-centred approach to deprescribing ATT, ultimately improving quality of life, treatment satisfaction, and informed decision-making in end-of-life care.

> **"I am passionate about supporting and empowering patients to be involved in decision making about their treatment and care... It's important that patients are informed and can understand all the information to make a choice that they feel most comfortable with. Shared decision-making support tools can help patients develop health literacy and educate and empower them to achieve this."**
>
> **Dr Michelle Edwards,**
> WCRC Researcher

Investing in Research Talent

Supporting cancer research that serves the community

The WCRC continues to champion research that delivers real-world benefits for communities, particularly those that stand to impact health inequalities. A leading example is the work of WCRC-funded research fellow Dr Grace McCutchan (funded 2018-present), whose research focuses on improving early cancer diagnosis, prevention, and reducing socioeconomic disparities. Over the past few years, Dr McCutchan has been involved in projects that engage directly with communities and health professionals to promote cancer screening, early detection, and smoking cessation. Key studies include the YESS trial, which supports patients attending lung cancer screenings to quit smoking using personalised scan booklets, and the TIC TOC study, which tested a community-based campaign working with 'Cancer Champions' to raise awareness of vague cancer symptoms in more deprived areas. Both initiatives were co-developed with local communities to ensure messages were accessible and impactful.

"To combat inequalities, we need high-intensity, easy-to-access and supportive interventions that take into account the wider determinants of health. Having trained local people who know their communities and how best to communicate key messages about early diagnosis and prevention has the potential to make a real difference."

Dr Grace McCutchan,
WCRC Researcher

Contributing to COVID-19 research

Repurposing our research skill sets to support the national COVID-19 response, WCRC's cancer vaccine researchers played a pivotal role in uncovering rare side effects of the Oxford/AstraZeneca vaccine. In 2021, Professor Alan Parker and WCRC Researcher Dr Mahulena Maruskova (funded 2021-23), were part of a team uncovering the link between the vaccine and immune thrombotic thrombocytopenia, a rare but serious side effect. Their research findings, widely publicised and shared with the UK Vaccines Taskforce, informed the decision to limit the vaccine's use for immunity boosting. This work was vital in ensuring the safety of the vaccination campaign and maintaining public trust in the national rollout of COVID-19 vaccines.

WCRC researchers made important contributions in other areas, including bereavement services and cancer symptom awareness during the pandemic. Mala Mann's (WCRC funded 2015-2023) 2020 rapid review on bereavement services led to a paper by Professor Annmarie Nelson, which influenced UK government policy to address gaps in support for grieving families. Meanwhile, Dr Grace McCutchan (funded 2018-present) and Julie Hepburn's involvement in a UKRI-funded survey on cancer symptom help-seeking behaviours highlighted the need for timely medical consultations, despite pandemic-related disruptions. These findings were shared in policy briefings, raising awareness and contributing to public health campaigns on cancer care during the pandemic.

Fostering Research Collaboration

Brokering collaboration

MDRG success helping to advance brain tumour research in Wales

Building on the momentum of the Multi-Disciplinary Research Group (MDRG) for brain cancer, which enables and encourages collaboration between specialists, WCRC clinical academic Dr James Powell (funded 2023-2025) has been appointed Clinical Lead for the Brain Tumour Research Initiative (BATRI), a new fund established by Cancer Research Wales to build a thriving brain tumour research community in Wales. The scientific lead for the BATRI is Dr Florian Siebzehnrubl, Senior Lecturer at Cardiff University and Deputy Director of the European Cancer Stem Cell Research Institute.

Dr Powell and Dr Siebzehnrubl are also co-chairs of the brain cancer MDRG. Supported by £1M annually for three years, BATRI has already funded seven projects, including innovation grants and three PhD studentships, following the first funding round in December 2024. Brain tumour research has historically been underfunded, receiving less than 2% of UK cancer research funding. BATRI aims to change this by providing sustainable funding to accelerate research progress in Wales. This funding is expected to create opportunities for researchers to improve understanding of the disease and develop new treatments for patients.

Fostering Research Collaboration

Wales Cancer Research Conference

The WCRC developed and ran our flagship Wales Cancer Research Conference in 2024 and 2025 to showcase the depth and breadth of cancer research across Wales and bring together leading cancer researchers, clinicians, and industry partners. The 2025 event, held at the ICC Wales in Newport, welcomed around 300 delegates and featured over 100 research posters, lightning talks, and engaging keynote sessions from leading experts, including Professor Serena Nik-Zainal (Cambridge) and Professor Andrew Beggs (Birmingham). The conference also prioritised PPI, with moving contributions from patient speaker, Bryan Webber. Awards were presented to outstanding contributors in research and PPI, and the event created a dynamic environment for networking and collaboration.

A highlight of the 2025 conference was a Spotlight Session led by the Wales Cancer Industry Forum (WCIF), which focused on innovation in cancer diagnostics and treatment, with presentations on national clinical trial strategies and liquid biopsy integration. The active involvement of early career researchers, interactive exhibitor stands, and strong cross-sector collaboration highlighted the growing momentum of cancer research in Wales. The annual conference has established itself as a platform for creating partnerships, sharing pioneering work, and driving forward cancer research to improve patient outcomes across Wales and beyond.

"This year's conference brought together the very best that Welsh cancer research has to offer. It was a pleasure to hear such a variety of topics being talked about and to have access to such insight on cutting edge treatments, diagnostics and expertise from a broad cross section of speakers."

Michael Bowdery,
Head of Programmes, Research and Development Division at Welsh Government and Joint Interim Director at Health and Care Research Wales

Supporting Research Infrastructure

Delivering research-enabling activity

Launching PIRIT: A practical toolkit driving meaningful public involvement in research

Since its launch at the Marie Curie Conference in February 2023, the free Public Involvement in Research Impact Toolkit (PIRIT) has gained significant international traction, and to date has been downloaded over 1,600 times across 30 countries. Co-developed by public contributors and research teams at the WCRC and the Marie Curie Research Centre (MCRC), PIRIT is designed to support researchers in planning, tracking, and evidencing meaningful public involvement in research.

> "It is a real pleasure to be part of this ground-breaking use of PIRIT as part of the SERENITY PPI strategy. As one of its designers, it is exciting to see the flexibility it offers in use."
>
> **Dr Kathy Seddon,**
> PPI Research Partner

Unique in its alignment with the UK Standards for Public Involvement, PIRIT offers a practical, accessible resource for researchers in any field. The Toolkit comprises two core elements: the Planning Tool, a checklist mapping involvement activities to relevant standards; and the Tracking Tool, a straightforward way to capture who was involved, what changed, and why it mattered. It has already demonstrated impact, notably within cancer studies including COBra, SERENITY, and CAR-T, where its use prompted more inclusive and varied public involvement. Feedback from both researchers and public partners underscores its value in encouraging reflective practice and enhancing the quality of research through deeper collaboration.

Looking back: the patient and public involvement team's journey at WCRC – by Julie Hepburn

"As we start the new 2025-30 funding period for WCRC, it seems fitting to look back at the challenges and achievements for the patient and public involvement (PPI) team over the last five years. Who can forget the way the five years started with COVID-19 and lockdown which meant no face-to-face contact. In fact, we adapted quite quickly and have continued to operate that way ever since, managing to retain all our Research Partners through that difficult period, and recruiting Mark Edwards who joined the group online from North Wales during that first year.

We also started the five years with a new Academic Partner, Alisha Newman, who was instrumental in the creation of PIRIT, our Public Involvement in Research Impact Toolkit, which is now freely available to download and use. The Rapid Response Group was also created early on to help researchers facing short deadlines to quickly recruit PPI help at the pre-funding stage of research bids. It has had successes but still has the capacity to do more in this area.

We have continued throughout to advise researchers on PPI in various ways, through the CReSt themes, Early- and Mid-Career Cancer Researchers Network and Multi-Disciplinary Research Groups. Active PPI participation in the WCRC Conferences in the last two years and regular articles in the newsletter have also helped us to raise our profile and we continue to welcome direct contact from anyone needing our advice."

Julie Hepburn, Lay Lead Research Partner 2020-2025

Supporting Research Infrastructure

WCRC community engagement: inspiring the next generation of cancer scientists

Over the past five years, the WCRC has remained committed to engaging communities across Wales, raising awareness of cancer research, and encouraging future generations to explore careers in science and medicine.

Our researchers have taken part in a wide range of events, from national festivals to school-based initiatives. Highlights include a stand at the National Eisteddfod, where our interactive exhibits sparked curiosity and discussion among visitors of all ages, and participation in the 'Be a Scientist' event as part of the Cardiff Science Festival, where children experience life as a researcher through fun, hands-on activities.

In addition to these, we have continued to expand our outreach across Wales. The WCRC team has engaged with the public at 'Genomics After Dark' at Techniquest, the Minority Ethnic Communities Health Fair, the Cross-Party Research event at Senedd, and the Grangetown Career and Role Models Week, each providing platforms to share our work and break down complex scientific concepts for the public. We have also regularly contributed to Cardiff University's 'Science in Health Live!' event, reaching over 400 year 12 students each year with creative activities and career insights from our researchers. In 2024, we also participated in In2STEM, a new work experience initiative that offers students from less advantaged backgrounds an opportunity to gain first-hand experience in cancer research labs, aiming to support diversity and inclusion in science careers.

Through these and many other initiatives, the WCRC continues to make meaningful connections across Wales, ensuring our research remains rooted in the community and accessible to all.

"My In2STEM experience allowed me to know what it is like to be a real scientist and get hands on into lots of experiments using specialist equipment I've never used before. But most importantly, the researcher's knowledge was the most valuable thing I got as I now know much more about cancer and how treatments like radiotherapy are administered. I also loved being able to listen to their experiences throughout their career and how it has shaped them."

Mary Metezai,
In2STEM, work experience student

Conclusion – Future Plans

The 2020-2025 period has been a transformative and highly successful chapter in the development of cancer research in Wales, driven by the strategic vision of the Wales Cancer Research Strategy (CReSt). Since its launch in 2022, we have made substantial strides in building a cancer research community and creating an environment where collaboration, learning, and innovation can thrive. Our collective efforts have laid a solid foundation for future progress, with a particular focus on bringing together pre-clinical and clinical researchers across research themes, encouraging interdisciplinary approaches, and maximising the potential of data and genomic infrastructures.

One of the most significant achievements has been the support and advancement of our funded researchers, many of whom are making notable contributions to the field. As highlighted throughout this report, these researchers have not only advanced scientific knowledge, but are also setting the stage for their transition to independent and sustainable funding in the future. This helps retain top academic talent within Wales, ensuring that our 'rising stars' can continue to thrive and contribute to the growth of a world-class cancer research community.

In addition, we have continued our strong tradition of promoting PPI across our research activities, recognising its vital role in shaping research priorities and ensuring that the needs of patients from a variety of backgrounds are at the forefront of our work. Our commitment to collaboration has also led to the creation of a supportive cancer research community that spans institutions, researchers, and stakeholder groups, with events like the Wales Cancer Research Conference now established as key platforms for knowledge sharing, inspiration, and networking.

Looking forward, we are excited about the opportunity to continue these efforts. Our future focus will build on the successes of the past, with an increased emphasis on enhancing cross-organisational collaboration, supporting the development of early and mid-career researchers, and continuing to drive the growth of critical mass of cancer research across Wales. The sustainability and growth of the research community will remain at the heart of our strategy, as we continue to create a supportive environment where researchers can thrive, collaborate, and ultimately improve outcomes for cancer patients.

We owe our success to the collective efforts of our researchers, partners, and stakeholders, including Health and Care Research Wales, the Welsh Government, and academic and NHS institutions across Wales. The dedication and hard work of the WCRC hub team, our funded researchers, PPI representatives, and the wider research community have been instrumental in the achievements summarised in this report. As we look to the future, we are confident that the ongoing development of a robust, connected, and sustainable cancer research community in Wales will continue to bring tangible benefits, not only for the people of Wales, but for cancer patients around the world.

Cardiff University | Prifysgol Caerdydd

Prifysgol Bangor University 1884

Swansea University | Prifysgol Abertawe

GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Aneurin Bevan University Health Board

GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Abertawe Bro Morgannwg University Health Board

GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Betsi Cadwaladr University Health Board

GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Caerdydd a'r Fro Cardiff and Vale University Health Board

walescancerresearchcentre.org