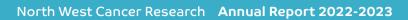
## **ANNUAL REPORT** 2022-2023





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## INTRODUCTION

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## **CHAIR'S REPORT**

I want to open this year's report with a tribute to Michael Potts, who sadly passed away in November 2023. Michael was a trustee of North West Cancer Research for a period of over 20 years, from the early 1990s through to 2017. He was also the Chair for much of this period, standing down in 2015 having taken the Charity through a significant merger. After stepping down from the Board, Michael became the Honorary President of the Charity. We will very much miss the knowledge, wisdom and wealth of experience that he brought.



In Michael's period of office, he enabled North West Cancer Research to become a member of the Association of Medical Research Charities, established the North West Cancer Research Centre and did a great deal to revitalise the Charity. He was always willing to spend time attending events, and those of us who knew him remember that he had great affection for our volunteers and fundraisers throughout the region and that they returned that affection.

Charities have the power to bring people together from different backgrounds and with different experiences. What draws people to North West Cancer Research will often be their experience of cancer. They may well have suffered with the disease, or have a family member who has. This creates in them something which is more than an interest in a subject, but is rather a desire to ensure that future generations can live without the fear and suffering that cancer engenders.

If we are to make progress in the fight against cancer in our region, we need to be more than passive bystanders. We need to take action, to work closely with others and to give our time, our focus, our intellect and sometimes our money. It is only through many people working together towards a common goal that we will create real change and bring about a healthier future for the people of our region.

Looking at the numbers, the financial year covered by this report saw a pleasing growth in the level of donations received from the public in our region, although our overall income was lower than in the previous year. We continue to allocate this money for research, campaigns and outreach work to improve the health of those around us. The challenge is big, but by working together we can achieve much to change the future of our region.

I should like to take this opportunity to express my profound gratitude to our supporters for their hard work, dedication and generosity, without which we would not be able to carry out our life-saving work. The time, money and effort they give to the Charity is very much appreciated. I should also like to thank my Board of Trustees, who continue to work hard on behalf of North West Cancer Research, supporting and guiding the Charity in its mission of a cancerfree future and providing valuable advice to me and to the Charity's management team. I also want to express my sincere gratitude to our CEO, Alastair Richards, to the whole staff team and to all those who have been involved with North West Cancer Research during 2022-23.

Miss C M Jones BA, ACG

Chairman

## **CEO'S REPORT**

### How do you make a region healthier?



How do you improve the long-term health of over eight million people and reduce the rate of cancer in our region? How do you ensure that for those eight million people their cancer is diagnosed sooner, treated more effectively and in a kinder way so that they are able to continue their lives? How do you ensure that fewer families are impacted by cancer?

Those are the questions that we are aiming to answer at North West Cancer Research.

Our task is enormous and we don't underestimate it. It is made more complex because cancer is more than 200 different conditions known by one name. Its causes are legion - to be found in factors which are genetic, in our lifestyles, what we eat and drink and sometimes with the appearance of just old fashioned bad luck.

If you had to devise a cancer plan for your hometown, where would you start? Perhaps you would start with information for young people as they become independent and begin to think about what they eat and drink. You might think about the simple things we can all change to reduce our cancer risk, like wearing sunscreen on a hot day. You might think about smoking and alcohol consumption. Perhaps you would think about screening, early diagnosis and treatment pathways. Would you look too at dental services to see if they are identifying head and neck cancers, or perhaps to the beauty industry which might both increase cancer risks through sunbeds but also provide an opportunity to spot cancers early?

Perhaps the future belongs to science, to blood tests and biomarkers. There is a suggestion that the tell-tale signs of cancer cells can be identified in the blood stream more than 15 years before a tumour forms. If we tested regularly we might provide everyone with the opportunity to identify tumours before they even start to grow, but at what cost?

The good news is that our knowledge of cancer, its causes and its treatments is growing by the day. Research is providing answers and is providing hope that we might be able to detect cancer earlier, treat it more effectively and stop the devastating impact that this disease has. Nationally, early detection rates are improving and treatments are becoming more effective. We are able to prevent many people from dying from cancers which just a few years ago would have been lifethreatening.

As a region, we need to make sure that we don't get left behind in this.

Our sense of community, our pride and our humour make us unique but we must ensure that we work together to tackle the deep-rooted factors which cause high levels of cancer in our region. Research, campaigns, education and information have the potential to improve the long-term health of our region and help to reduce our cancer levels.

But, this is not a battle that we can, or will, fight alone. We will need to work with partners including health services, universities, local authorities, housing associations, businesses and most importantly, our communities across the region.

At a time when household budgets are stretched and the cost of living has risen, North West Cancer Research continues to depend upon the generosity of the people of our region who want to make a real difference for their families and future generations. Your time and your donations will help to deliver change for our region and to make it a healthier place to live.

Thank you to all of you who have supported us in 2022-23. We are so grateful for the time and funds you have provided us with and we look forward to seeing you again in 2024. Thank you too to Catherine Jones as our Chair, who gives her time so freely, and to the Board of Trustees for their advice and support.

I hope that you will join with us in helping to make our region better.

Alastair Richards Chief Executive Officer







## **ACTIVITIES REPORT**

North West Cancer Research is dedicated to putting the region's cancer needs first by tackling the cause, improving the care and finding the cure for cancer. These are big and ambitious goals which we aim to achieve through two charitable objectives:



We are a research funder that funds work at all stages of the research pipeline from the earliest cancer discovery work to studies which address patient experiences, inequalities and the environmental factors behind cancer



#### Information, outreach and education

Our work in this area is growing as we seek to provide people of all ages and from varied backgrounds with information which will help them to live healthily, reduce their risk of cancer and recognise the signs and symptoms of different forms of the disease Our organisational strategy supports these objectives and during 2020 the Board defined three key areas of work:

- Understanding our region We need to understand why cancer is a challenge within our region
- Undertaking research into the cause, care and cure for cancer
- Raising awareness of cancer in our region and helping to prevent it developing

### RESEARCH

At the end of the financial year the Charity had 60 active research projects operating at nine locations across the region. Projects are usually funded through universities and NHS Trusts but where applicable, patients are able to participate in them through a range of hospitals – including all of the major cancer treatment centres in the region. These projects had a cost of over £9m in total with the majority of them receiving funding over a number of years.

During the year we funded 18 new projects at a cost of E2.0m. All of the projects were focused on cancer types which impact people within our region including pancreatic, colorectal, head and neck and other cancers. The largest new grant approval during the year was E500,000 for the Liverpool Head and Neck Centre to create a research pathway from the clinical centre of excellence to the researchers of the region.

All of our funded research is published and researchers are encouraged to author and publish papers, as well as visiting conferences and other research meetings to ensure that their work is known and benefits national and international knowledge around cancer.

#### **Research Governance**

North West Cancer Research is a member of the Association of Medical Research Charities (AMRC) and this means that we follow externally laid down principles when deciding which research applications to fund. All projects are subject to external review by experts from the UK and beyond, as we seek to ensure that we only fund the best work that breaks new ground in research.

Projects go before an independent research funding panel in order to rank them against other applications for funding, so that only the very best work is funded. These research panels are made up of experts from the academic and clinical communities across the UK.

We seek to ensure each advisory group is closely aligned with the work funded to make sure that their expertise is focused on relevant research applications. Each group oversees a funding round and then, based on the merits of the applications received, the advisory group makes recommendations to the Board. The final decision on how many projects to fund lies with the Board of Trustees.

The Charity would like to thank all of the researchers, scientists, academics and others who have given their time this year in order to review and report on the project applications received. This process for gaining funding is highly competitive and therefore the task of reviewing applications is one of growing complexity.

### Public and patient representation in advisory groups

We strive to fund research that is relevant and important to our local population. The patient voice is vital to influence our decisions on the importance of the funding applications we receive, as well as contributing to our future objectives.

We have engaged with public and patient representatives and are moving towards fully embedding them in our activities in order to bring the patient voice and perspective into our decision-making more fully. We are grateful for the time and effort these 'experts by experience' give and for their valuable contributions.





## Working in partnership with others

The Charity recognises the importance of working with others in order to benefit from their expertise and to share the costs of research work. By the close of the financial year we were jointly funding work with eight other charities as follows:

- **Tenovus Cancer Care** Working with Tenovus, we have jointly funded a study examining how the remote consulting tools used by GPs during the pandemic help or possibly hinder patients who have cancer symptoms.
- Kidney Research Northwest -Kidney cancer is relatively rare but because of this it is hard to diagnose. With KRNW, we have jointly funded a pioneering study of Wilms' tumour, a type of childhood cancer, in order to improve the treatment of this.
- The Bloom Appeal The Bloom Appeal focuses on blood cancers such as leukaemia which are common in our region and so we are delighted to have funded a study with them to advance our understanding of aggressive cases of lymphoma and chronic lymphocytic leukaemia.
- Oracle Cancer Trust Oracle focus on head and neck cancers

   which are significantly more common in our region than in more affluent parts of the UK.
   Together, we have jointly funded a project to understand what drives

poor patient outcomes in our region.

- Kidscan Kidscan funds research into childhood cancers – which can be rare but which are devastating in their effect. We have worked with them to fund research into medulloblastoma – a childhood brain cancer.
- **Cancer Research Wales** We are excited to be partnering with Cancer Research Wales on the ThinkCancer project which seeks to improve the time taken for cancer patients to be referred to specialist services and to assist GPs and their teams in recognizing the warning signs of cancer.
- **Mesothelioma UK** Mesothelioma is a regional problem, with hotspots of this cancer type in Merseyside and Cumbria. Our project seeks to develop a novel treatment approach for mesothelioma.
- **The Eve Appeal** We are delighted to be jointly funding a fellowship with The Eve Appeal in the early detection of endometrial cancer at the University of Manchester.

## Further partnerships will be funded in 2023/24.

Our approach of working in partnership also means that we have joined and benefitted from the expertise of two alliances. These are:

• **Cancer52** - This charity brings together organisations which focus on less common cancers but which count for a disproportionate number of cancer deaths.  NHS North West Coast Applied Research Collaboration - This grouping brings together NHS Trusts and universities in our region to drive forward pioneering research and to ensure that our efforts are not in isolation but are coordinated with others.

North West Cancer Research is also a not-for-profit partner of the NHS Clinical Research Network.

### Developing the cancer scientists of tomorrow

We continue to invest funds to help build and sustain research capacity in our region. This funding ensures the highest quality research occurs locally and develops the next generation of cancer researchers. Funding in this area is through a number of different streams including:

- Masters in Research 1-year qualifications
- PhD studentships
- Research Development Funding
- Funding for Lectureships, Fellowships and other posts

### INFORMATION, OUTREACH AND EDUCATION

A key component of our activities is our information, outreach and education work. We directly engage with communities across the region to devise outreach and education activities to improve understanding of the ways to prevent cancer, as well as highlighting the early warning signs.

This award-winning work emphasises key risks and gives people the practical skills and tools to become advocates for early diagnosis and healthy living in their communities.

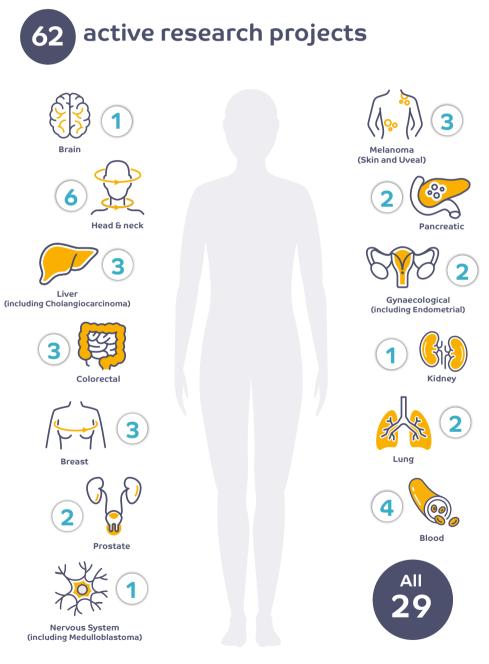
Recent engagement activity has included:

- A skin cancer campaign to educate and involve the public in activities that increase their understanding of how to keep safe in the sun and prevent skin cancer, as well as recognising the early warning signs
- A high-profile campaign to help people across the region recognise the symptoms of head and neck cancer and encourage them to seek help
- A cervical screening campaign aimed at 25 to 40 year olds, reminding them to attend screening appointments
- A comprehensive school engagement program providing hands-on lessons that develop an understanding of the science behind the messages, whilst instilling healthy behaviours at an early age



## RESEARCH PROJECTS BY CANCER TYPE

Our research projects are focused on multiple cancer types, ensuring we maximise the impact of our work across our community.



Total cancer types = 67 due to overlap in research areas covered by 62 individual projects including studentships and research development grants.

## **CASE STUDIES**

The North West has one of the highest regional rates of mortalities for malignant pleural mesothelioma in the UK, due to the shipbuilding and our industrial heritage.



A partnership with Mesothelioma UK is seeking to discover new clinical treatments for the pleural form of asbestos-related cancer, mesothelioma.

'Deubiquitinase Inhibitors as Novel Therapeutics for the Treatment of Hypoxic Malignant Pleural Mesothelioma,' will be carried out by Dr Niall Kenneth and Dr Sarah Barnett at the University of Liverpool. The project is proposing a unique way of modelling mesothelioma and tumour hypoxia (oxygen starvation) using hen's eggs. Using this system and new classes of drugs, researchers will 'switch off' the biomarker, UCHL1 in mesothelioma and examine the effects on tumour growth and aggressiveness.

The team hope to develop new ways to target hypoxic mesotheliomas which are generally more aggressive and harder to treat using existing therapies.

A taskforce of experts have come together at Lancaster University for a major investigation into the prevalence of cancer in the region in a bid to help improve early detection.

Lead academic Dr Luigi Sedda believes that the majority of previous studies considered cancers as single disjointed entities but identifying the presence of more cancers in the same area can shed light on the wider causes of the disease.

The study will analyse and map different factors including environmental, social and economic factors and how they impact on cancer diagnosis. Researchers will take advantage of a huge comparable patient data set in the region, which will give medics vital information to help diagnose and treat the disease.

It is hoped that the project will provide a detailed picture of where there are correlations between potential causes and common types of cancer in our region, with findings being used to diagnose cancer early to save lives, while inspiring similar research to be undertaken across the country.



## **CURRENT FUNDING**

### LANCASHIRE AND CUMBRIA

The role of NSMCE2-dependent SUMO modification in the replication stress response Dr Elaine Taylor, Dr Mick Urbaniak

E199,908 /3 years

#### Living Well During and Beyond Treatment for Gynaecological Cancer: Exploring the Lived Experiences of Patients Undergoing Treatment for Gynaecological Cancer

Dr Lisa Ashmore, Daniel Hutton, Dr Lynda Appleton, Dr Vicky Singleton, Dr Karen Whitmarsh, Janet Johnson £118,787 /2 years

## Funding for a Lecturer and Fellow in cancer research with x 2 PhD students

The funding provides support for the appointment of a Lecturer in Cancer research, along with a Fellow, two PhD students and lab-costs for 5-years. It has been match-funded by Lancaster University. E441,296 /5 years

Small molecule induced degradation of centrosome clustering proteins: development of a novel, cancerspecific therapeutic approach Dr Morgan Gadd, Dr Andrew Fielding E232,697 /3 years Analysis of the role of CIZ1 in maintenance of genome stability and recovery form DNA replication stress Dr Nikki Copeland, Dr Chris Staples, Dr Jason Parsons £257,081 /3 years

Early predictive detection method for lung cancer via vibrational spectroscopy of liquid biopsy Dr Danielle Bury, Francis Martin, Tarek Saba, Thomas Bongers, Camilo de Morais £129,054 /3 years

PhD studentship: How is the immune system alerted to replication stress and DNA damage in keratinocytes during immunosurveillance against cutaneous squamous cell carcinoma? Dr Leonie Unterholzner (Supervisor), Otto Wheeler (Student) £105,500 /3 years

Immunotherapy and Palliative Care Trajectories (IMPACT): a mixed-methods study mapping illness trajectories for people with advanced cancer receiving immunotherapy treatment to identify palliative care need

Dr Sarah Brearley, Professor Catherine Walshe, Dr Amy Gadoud, Dr Anastasia Ushakova, Dr Manon Pillai, Dr Fiona Kiely, £239,537 /2 years Developing Raman spectroscopy as a diagnostic tool for prostate cancer – A potential non-invasive alternative to serum PSA (Prostate Specific Antigen) testing and prostate biopsies

Professor Ihtesham ur Rehman, Professor Alison Birtle, Ms Sarah Hart, Mr Colin Cutting, Dr Brendan Tinwell E249,991 /3 years

Optimising the communitybased "Call for a Kit Clinic" health promotion programme to reduce inequalities in bowel cancer Screening uptake in Lancashire Dr Yasemin Hirst, Professor Christian von Wagner, Dr Sandro Stoffel, Dr Robert Kerrison and Dr Shahida Hanif E96.515 /15 months

#### Finding My Way UK: Adaptation and replication testing of the benefits of online psychological support for cancer survivors

Professor Nicholas Hulbert-Williams, Dr Lee Hulbert-Williams, Dr Lisa Beatty, Professor Bogda Koczwara, Dr Laura Ashley, Professor Neil Coulson, Dr Peter Hall, Professor Eila Watson, Mrs Sue Millington, Mr Richard Jackson E249,646 /3 years

PhD studentship: 'Caring, it's just what you do isn't it?': The psychosocial impact of a cancer diagnosis on informal caregivers Dr Brooke Swash,

Professor Nicholas Hulbert-Williams, Professor Valerie Morrison £93,064 /3 years A mixed method study to describe the factors associated with palliative care inequalities experienced by cancer patients in the North West, and the impact of these inequalities Dr Amy Gadoud, Dr Sarah Brearley, Dr Maddy French E99,189 /3 years

Mapping geographically co-occurrent cancers in the Morecambe Bay area for designing targeted communitybased interventions

Dr Luigi Sedda, Professor Alison Birtle, Dr Andy Knox, Ms Lisa Jones, Dr Hannah Timpson, Professor Peter Atkinson £170,543 /2 years

Regulation of DNA repair and the innate immune response to radio and chemotherapy by the DNA sensors cGAS and IFI16 Dr Leonie Unterholzner, Dr Chris Staples £268,333 /3 years

**Biospectrometry as a non-invasive** diagnostic tool for suspected oesophageal cancer Professor Ihtesham u Rehaman, Dr Ravindra Date, Dr Mohammed Elniel £49,893.70 /1 year

Analysis of an RNA export factor required for cell division and maintenance of genome stability Dr Elaine Taylor, Dr Howard Lindsay £231,271 /3 years



## **CURRENT FUNDING**

### **NORTH WALES & CHESHIRE**

Autophagy dependent survival following Mec1ATM/ATR inactivation Dr Rita Cha E196,116 /3 years

KESS2 MRes Studentship funding for four MRes students along with two PhD students £97,500 /3 years

#### Patient centred benefit-risk assessment of treatment for colorectal liver metastases in North West England and North Wales

Dr Emily Holmes, Professor Simon Gollins, Mr Stephen Fenwick, Mrs Louise Jones, Professor Dyfrig Hughes E67,301 /1 year KESS2 MRes Studentship Funding 21/22 Dr Edgar Hartsuiker E27,000 /2 years

Understanding barriers and enablers to use of primary care remote consulting for suspected cancer symptoms among vulnerable populations

Dr Julia Hiscock (Supervisor), Stefanie Diesbechl (Student) joint with Tenovus £75,000 /3 years

Think Cancer!: A pragmatic randomised controlled phase III trial of a novel behavioural intervention for primary care teams to promote earlier cancer diagnosis with embedded process and economic evaluation Professor Clare Wilkinson, Professor Richard Neal, Dr Alun Surgey, Miss Stefanie Disbeschl, Dr Annie Hendry, Dr Julia Hiscock, Mrs Janice Rose, Miss Rachel Evans, Dr Nia Goulden, Professor Rhiannon Tudor Edwards, Dr Victory Ezeofor, Miss Bethany Anthony, Dr Daniel Walker, Professor Andrew Carson-Stevens, Professor Katherine Brain, Lowri Griffiths E400,000 /2 years initially

### MERSEYSIDE

# Function of stroma-derived gas6 in pancreatic cancer progression and metastasis

Professor Ainhoa Mielgo, Mr Robert Jones £114,450 /3 years

#### Tribbles pseudokinases: Analysis of cancer-associated signalling mechanisms

Professor Patrick Eyers, Dr Dominic Byrne, Professor Claire Eyers E221,262 /3 years

#### The role of the ERK5 signalling axis in BRAF inhibitor-resistant melanoma progression

Dr Mike Cross, Dr Rowan Pritchard-Jones, Dr Cathy Tournier, Dr Emanuele Giurisato, Professor Harish Poptani, Professor Clarie Eyers £229,883 /3 years

# DUB on the Tracks: USP31, a new regulator of microtubule dynamics in cancer cells

Professor Michael Clague, Professor Sylvia Urbe £128,850 /3 years

#### Sensing tension: Bidirectional feedback mechanisms controlling breast cancer invasion

Dr Mark Morgan, Dr Tobias Zech, Dr Dean Hammond, Asst. Professor Pere Roca-Cusachs, Louise Jones, Professor John Marshall £233,087 /3 years

#### A prospective study of genomic landscape of brain metastasis secondary to breast cancer utilising cell free DNA derived from cerebral spinal fluid Investigators

Professor Carlo Palmieri, Professor Janet Brown, Dr Vinton Wai Tung Cheng, Dr Ellen Copson, Dr Athina Giannoudis, Mr Michael Jenkinson, Mr Richard Jackson, Dr Iain MacPherson, Professor Jacqui Shaw, Mrs Lesley Stephen £254,387 /3 years

"Imaging in the Window of Opportunity" Evaluating the role of advanced MRI techniques in detecting early response to immune checkpoint inhibition in a Head and Neck Cancer window of opportunity trial Mr Andrew Schache, Professor Harish Poptani, Dr Joe Sacco, Dr Rahcel Brooker, Ms Eftychia-Eirini Psarelli, Dr Kumar Das, Dr Maneesh Bhojak, Dr Rebecca Hanlon, Dr Gaurav Sundar E98,041 /18 months

PhD Studentship: Enhancing eye cancer diagnostics and early detection via the application of artificial intelligence to clinical images of primary and metastatic uveal melanoma

Professor Sarah Coupland (Supervisor) Professor Yalin Zheng, Professor Ke Chen, Dr Helen Kalirai, Max Jackson (Student) £108,350 /3 years



#### Head and neck cancer/radiobiology/ DNA damage and repair

Dr Gabrielle Grundy and Dr Jason Parsons E448,683 /5 years

#### Exploiting the soluble isoform of immune checkpoint receptor CTLA-4 to improve the treatment of cancer

Dr Lekh N Dahal, Professor Mark Cragg, Professor Joseph Slupsky, Professor Sir Munir Pirmohamed, Dr Frank Ward E248,333 /3 years

#### Investigation of volatile organic compounds to diagnose and stratify men with prostate cancer

Professor Chris Probert, Professor Philip Cornford, Mr Henry Lazarowicz, Marta Garcia-Finana E299,992 /3 years

#### PhD studentship: Defining and drugging the role of BAP1-mutation in the invasive behaviour of mesothelioma and uveal melanoma Professor Judy Coulson (Supervisor),

Martina Tripari (Student) E105,500 /3 years

#### PhD studentship: Characterising the temporal host and tumour response to neoadjuvant therapy in metastatic rectal cancer

Professor Ainhoa Mielgo (Supervisor), Dr Jason Parsons, Mr Dale Vimalachandran, Mr Robert Jones, Professor Michael Schmid, Jayden Gittens (Student) E104,961 /3 years PhD studentship: Cancer Proteomics: Deciphering the cellular targets of clinical protein kinase inhibitors Professor Patrick Eyers (Supervisor), Nefeli Boni-Kazantzidou (Student) £138,089 /4 years

PhD studentship: Investigating the use of short activating RNAs (saRNAs) to upregulate tumour suppressor genes as a novel therapeutic approach in hepatocellular carcinoma (HCC) Dr Ian Copple (Supervisor), Georgina Gregory (Student) £105,500 /3 years

PhD studentship: Augmenting the tumour cell immune response through destabilisation of PD-L1 Professor Mike Clague/Professor Sylvie Urbe (Supervisor), Georgia Guillbert (Student) £105,500 /3 years

PhD studentship: Releasing the cell cycle arrest with PROTACs to enhance DNA-damaging therapies Dr Morgan Gadd/Dr Sarah Allinson/Dr Jason Parsons (Supervisor), Lauryn Buckley-Benbow (Student) £105,500 /3 years

Investigating whether chemotherapy-induced senescence affects the behaviour of cancer stem cells in Wilms' tumour Dr Bettina Wilm Joint with Kidney Research North West £149,955 /2 years Defining the hepatic metastatic niche in colorectal cancer on a single cell basis Professor Ainhoa Mielgo £12,400 /12 months

Examining the impact of proton beam therapy on DNA replication efficiency and stress in head and neck cancer and glioblastoma cell models Dr Jason Parsons E10,000.00 /12 months

**YB-1 regulation during Tumour Hypoxia** Dr Niall Kenneth £14,942 /12 months

Understanding how uveal melanomas utilise meiotic SYCP1 to become therapy resistant and harnessing it in the clinic Dr Urszula McClurg E11,000 /12 months

Identifying the mechanisms underlying T-cell exhaustion in pancreatic tumours Professor Ainhoa Mielgo, Professor Michael Schmid £255,755 /3 years

PhD studentship: Creation of cell lines modelling complex karyotype in B cell lymphomas using CRISPR/Cas9

Professor Joseph Slupsky (Supervisor), Abigail Clark (Student) Joint with The Bloom Appeal £105,000 /3 years **A novel in vivo model for studying and targeting Ras-driven cancer** Professor Ian Prior, Dr Yasmina Sahraoui

E223,764 /3 years

Investigating a stratified approach to mesothelioma treatments targeting metabolism using a novel chick embryo patient-derived xenograft model Professor Judy Coulson, Dr Joe Sacco, Dr Anne Herrmann, Mr Michael Shackcloth, Professor Peter Szlosarek, Professor Harish Poptani, Mr Tony Murphy £274,406 /3 years

Understanding the experiences of Black and Minority Ethnic (BAME) individuals with comorbid cancer and a long-term physical health condition impairing their cognition and/or communication Dr Alam Elahi, Professor Nusrat Hussain, Dr Alys Wyn Griffiths & Dr Mary Gemma Cherry E98,217 /20 months

PHD Studentship: Establishing the immune-profile of cholangiocarcinoma and the utility of human precision cut tumour slices (hPCTS) as a platform to assess immunotherapy response. Dr Laura Randle (Supervisor), Professor Christopher Goldring, Mr Timothy Gilbert, Mr Hassan Malik, Professor Daniel Palmer, Owen McGreevy (Student) E104,970 /3 years

B

From Clinic to Community: Contextualising Head and Neck Cancer Inequalities in Merseyside and Cheshire

Professor Ciara Kierans, Professor Terry Jones £171,626 /2 years

Acceptable and efficient early screening tests for endometrial cancer (AESTEC) Study Professor Dharani Hapangama E13,086 /12 months

#### PROTACing medulloblastoma: turning existing chemistry upside down to design a new therapeutic approach

Professor Michael Clague, Professor Sylvie Urbe, Professor Barry Pizer, Dr Igor Barsukov, Daisy Sawdon (Student) Joint with Kidscan £75,599 /3 years

#### Translational relevance of the Stimulator of Interferon Genes (STING) pathway and viral infection in follicular lymphoma

Dr Lekh Dahal, Dr Andrew Pettit, Dr Carrie Duckworth, Professor Dean J Naisbitt £239,792 /3 years

#### Understanding how chemotherapy affects APC and T cell activation in pancreatic cancer liver metastasis

Professor Michael Schmid, Professor Ainhoa Mielgo, Professor Christian Ottensmeier, Professor Daniel Palmer & Dr Kim Clarke £181,062 /3 years

### LHNC Stage 2: consolidation for clinical impact (LHNC CCI)

Professor Keith Hunter, Professor Terry Jones, Professor Christian Ottensmeier, Professor Richard Shaw, Professor Andrew Schache, Mr Jason Fleming, Professor Joanne Patterson £500,000 /4 years

#### PhD Studentship: Personalised surveillance schedules for detecting hepatocellular carcinoma

Dr David Hughes (Supervisor), Professor Philip Johnson, Professor Marta Garcia-Finana £134,000 /3 years

### MANCHESTER

Deciphering evolution of small cell lung cancer from diagnosis to post chemotherapy disease progression: a search for new drug targets Professor Caroline Dive, Professor Fiona Blackhall, Dr Kristopher Frese, Dr Alastair Kerr £105,000 /3 years

Promoting an anti-cancer tumour microenvironment in early breast cancer patients using the Factor X inhibitor Rivaroxaban

Professor Cliona Kirwan, Mr John Castle, Dr Urvashi Singh £37,702 /1 year

### JOINT FUNDING PARTNERSHIPS

Investigating and explaining contemporary patterns and trends in inequalities across the head and neck cancer pathway: understanding the roles of deprivation and region

Professor Linda Sharp, Dr James O'Hara, Dr Laura Woods, Professor Clare Bambra, Mrs Val Bryant, Dr Jonathan Pratschke, Dr Manuela Quaresma E124,152 /1 year

ThinkCancer!: A pragmatic randomised controlled phase III trial of a novel behavioural intervention for primary care teams to promote earlier cancer diagnosis with embedded process and economic evaluation Professor Claire Wilkinson – E1,595,745 funded by Cancer Research Wales and North West Cancer Research

PhD studentship: Understanding barriers and enablers to use of primary care remote consulting for suspected cancer symptoms among vulnerable populations Dr Julia Hiscock (Supervisor), Stefanie Disbeschl (Student) – joint with Tenovus, £75,000 /3 years PhD studentship: Creation of cell lines modelling complex karyotype in B cell lymphomas using CRISPR/Cas9 Professor Joseph Slupsky, Abigail Clark (Student) – Joint with The Bloom Appeal, £105,000 /3 years

Investigating whether chemotherapy-induced senescence affects the behaviour of cancer stem cells in Wilms' tumour Dr Bettina Wilm – Joint with Kidney Research North West, 149,955 /2 years



## CASE STUDY

A team of North West Cancer Research-funded researchers is exploring the psychological impact of cancer diagnoses on informal caregivers.

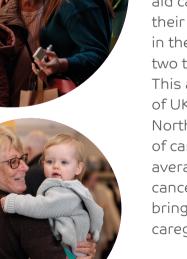
Professor Nick Hulbert-Williams from Edge Hill University's Department of Psychology, along with Dr Brooke Swash from University of Chester and Professor Valerie Morrison at Bangor University are leading the project, with Lorraine Wright from Edge Hill University appointed as the PhD student supporting.

Together the team have set out to understand the lived experiences of informal caregivers after receiving a cancer diagnosis, with the aim of producing a toolkit to aid cancer care professionals in their patient support. 1 in 8 adults in the UK are informal carers, with two thirds over the age of 65. This age group accounts for 60% of UK cancer diagnoses and the North West has high proportions of carers compared to the national average. Being diagnosed with cancer whilst undertaking this role brings additional challenges to the caregiver.

This research aims to better understand the care and support that is provided to people with cancer who have caregiving responsibilities, as well as the physical and psychological impact on the person they are caring for.

The first step of the project included a systematic literature review to understand what is already known about the experiences of informal caregivers, who are themselves unwell, and highlight any gaps in knowledge. Findings so far confirm that little research has been carried out on this topic, with limited evidence showing an impact not only on the caregiving role but also the psychological wellbeing and quality of life of the caregiver.

The team are now underway with a series of interviews and discussion groups, exploring the experiences of the caregiver with cancer, the person they are caring for and healthcare professionals involved in the delivery of cancer care.



On completion of these interviews, the team will produce a toolkit to help cancer care professionals better support their patients with caregiving responsibilities. The toolkit will be developed with involvement from patients, carers and health professionals and the team will seek feedback from those with cancer, informal care recipients, healthcare professionals and people working within cancer charities.

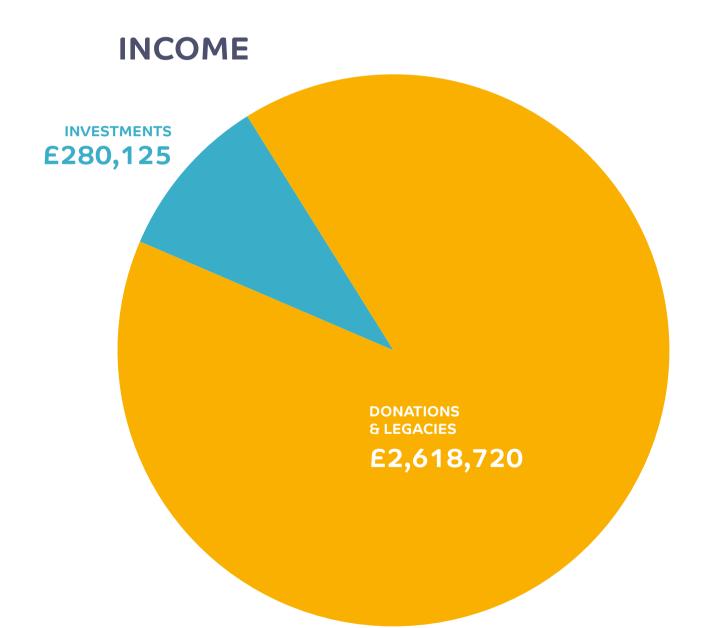
Prof Hulbert-Williams said: "The North West and North Wales have high prevalence of cancers with poorer prognosis and high treatment burden. Informal caregiving has increased faster than population growth across England, including in the North West, which has one of the highest percentages of local population providing informal care in England. "This project will provide novel insights into the experiences and the challenges faced trying to navigate cancer recovery whilst maintaining caregiving responsibilities. It will help us to understand the impact of cancer diagnosis in someone with caregiving responsibilities and what support they need, and ultimately enable us to develop the right tools to help."

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### FINANCIAL SUMMARY 2022-2023

This summary on pages 26-29 gives an overview of how we have performed during the financial year ending 30 September 2023. The full Annual Report and Financial Statements are available from the North West Cancer Research office or the Charity Commission website.



### **EXPENDITURE**

CHARITABLE ACTIVITIES **E2,539,317** 

INVESTMENT MANAGEMENT

E29,638

FUNDRAISING **E730,659** 

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### CONSOLIDATED STATEMENT OF FINANCIAL ACTIVITIES

#### FOR THE YEAR ENDED 30 SEPTEMBER 2023

	Unrestricted funds 2023	Restricted funds 2023	Total funds 2023	Total funds 2022
INCOME FROM:				
Donations and legacies	2,432,689	186,031	2,618,720	4,639,818
Investment income	280,125	-	280,125	256,435
TOTAL INCOME	2,712,814	186,031	2,898,845	4,896,253
EXPENDITURE ON:				
Raising funds:				
Fundraising and legacy generation costs	730,659	-	730,659	585,712
Investment management	29,638	-	29,638	31,384
Charitable activities	2,443,781	95,536	2,539,317	2,408,486
TOTAL EXPENDITURE	3,204,078	95,536	3,299,614	3,025,582
NET INCOME/(EXPENDITURE) BEFORE INVESTMENT GAINS Gains/(losses) on investments	(491,264)	90,495	(400,769)	1,870,671
	231,351	-	231,351	(1,030,141)
NET INCOME/(EXPENDITURE) BEFORE TRANSFERS	(259,913)	90,495	(169,418)	840,530
Transfers between funds	65,788	(65,788)	-	-
NET MOVEMENT IN FUNDS	(194,125)	24,707	(169,418)	840,530
<b>RECONCILIATION OF FUNDS:</b> Total funds brought forward	5,411,437	-	5,411,437	4,570,907
TOTAL FUNDS CARRIED FORWARD	5,217,312	24,707	5,242,019	5,411,437

### CONSOLIDATED BALANCE SHEET

#### FOR THE YEAR ENDED 30 SEPTEMBER 2023

	Total funds 2023	Total funds 2022
FIXED ASSETS		
Tangible assets	963	2,614
Investments	8,232,986	8,049,550
	8,233,949	8,052,164
CURRENT ASSETS		
Stocks	21,096	17,193
Debtors	453,950	1,150,651
Debtors: amounts falling due after more than one year	59,000	127,174
Investments – short term	2,027,452	-
Cash at bank and in hand	640,662	2,129,678
	3,202,160	3,424,696
<b>CREDITORS:</b> amounts falling due in less than one year	(3,946,017)	(3,409,817)
NET CURRENT ASSETS (LIABILITIES)	(743,857)	14,879
TOTAL ASSETS LESS CURRENT LIABILITIES	7,490,092	8,067,043
<b>CREDITORS:</b> amounts falling due after more than one year	(2,248,073)	(2,655,606)
NET ASSETS	5,242,019	5,411,437
CHARITY FUNDS		
Restricted funds	24,707	-
Unrestricted funds	5,217,312	5,411,437
TOTAL FUNDS	5,242,019	5,411,437

## TRUSTEES, ADVISORS AND PATRONS

#### **Trustees and Officers of the Board**

**Miss C M Jones BA, ACG** Chair and Chair of the Nominations Committee

**Mr S Anantharaman** Appointed 28 April 2022

**Mrs H Atherton** Chair of the Marketing and Fundraising Committee

**Mrs C Bond CPFA** Resigned 31 December 2022 Honorary Treasurer to this date

**Dr M Carter CPsychol AFBPsS** Vice Chair

**Mrs J Clague FCA** Appointed 26 April 2023 and Honorary Treasurer from that date **Dr A Fearon** Appointed 28 September 2022 Resigned 8 September 2023

Mr M Haig

Ms F Hewison Dr S Kothari

**Mr P Moonan** Chair of the Marketing and Fundraising Committee from September 2023

Mr M Ore Dr P Robertshaw PhD, Dip DM Mr A Stalker

**Mr John Willis** Appointed 28 April 2022 Chair of the Investment Committee from October 2022

#### Patrons

The Most Reverend Malcolm McMahon The Archbishop of Liverpool The Right Reverend Mark Tanner The Lord Bishop of Chester The Right Reverend Paul Bayes The Bishop of Liverpool The Right Reverend Gregory Cameron The Bishop of St Asaph The Right Reverend Peter Eagles The Bishop of Sodor and Man The Right Reverend Beverley Mason The Bishop of Warrington Mark Blundell

Lord Lieutenant of Merseyside

**Prof Tim Jones** The Vice Chancellor, The University of Liverpool

**Prof Ian Campbell** The Vice Chancellor, Liverpool John Moores University

Dr Steve Ryan The President of the Liverpool Medical Institution The Most Honourable David Cholmondeley The Marquess of Cholmondeley Lord Mostyn Dame Lorna Muirhead





#### **Registered office**

North West Cancer Research 200 London Road Liverpool L3 9TA

#### **Bankers**

NatWest 247 High Street, Bangor, Gwynedd LL57 1RW

#### Solicitors

**Brabners LLP** Horton House, Exchange Flags, Liverpool L3 9QJ

#### **Investment Managers**

Investec Wealth and Investment Ltd. The Plaza, Old Hall Street, Liverpool L3 9AB

#### **Independent Auditors**

**Crowe U.K. LLP** The Lexicon, Mount Street, Manchester M2 5NT

#### With Thanks

Elda Latin Charitable Trust **Charles Brotherton Trust** Lord Leverhulme's Charitable Trust Sir Donald and Lady Edna Wilson Charitable Trust The Pennycress Trust Investec Wealth and Investment Ltd. The Pilkington Charities Fund John E Behrend The Red Rose Charitable Trust Eleanor Rathbone Charitable Trust **Liverpool Charity and Voluntary Services** The John Hatt Trust The Gladstone R Trust Fund National Lottery Community Fund Awards for All **Brabners Foundation** The Whinlatter Fund **Proven Family Trust Robert Luff Foundation** Albert Gubay Foundation The Skelton Charity Alder Hey Children's NHS Trust

#### We are grateful for the vital contribution that legacies make to the work of North West Cancer Research. Our heartfelt thanks go to the estates of:

Joan Alcock John Bartlett Ethel Jean Beddow Valerie Rose Bower Ann Bridson Brian Chappell Sandra Chivers Beryl Davis Miriam Edge Roger Fieldhouse Penelope Ann Gordon Jennifer Ann Harrison Albert Haworth Violet May Holdgate Mr. L A R Holmes Joyce Hutchinson Delysia Edith Jones Eileen Kaye Patrick Kenney Edna Lee Keith Maddocks Iris Evelyn Masters Robert Edward McDonald Diana Moss Janet Nesbitt Margaret Mary Poole Joan Povey Kenneth Powell Violet Marion Powell Elaine Redfern Beryl Elizabeth Rimmer Kathleen Mary Seddon Doreen Smith Barbara Mary Statham Doris Stockdale Irene Swift Dennis Taylor Ivor Taylor Sidney Murray Taylor Marjorie Williamson Hilda Margaret Wood

North West Cancer Research Liverpool Science Park 131 Mount Pleasant, L3 5TF

Visit **nwcr.org** or call **0151 709 2919** or email: **info@nwcr.org** for more information

Registered Charity No. 519 357



