



Report Cover Sheet

Report to:	Trust Board	
Date of the Meeting:	28 th October 2020	
Agenda Item:	P1-161-20	
Title:	Research Strategy (2020 – 2025)	
Report prepared by:	Prof Nagesh Kalakonda	
Executive Lead:	Dr Sheena Khanduri	
Status of the Report:	Public	Private

Paper previously considered by:	Quality Committee
Date & Decision:	Approved on 23 rd January 2020

Purpose of the Paper/Key Points for Discussion:	Research Strategy document for approval by Trust Board
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Action Required:	Discuss	
	Approve	X
	For Information/Noting	

Next steps required	To be approved at Trust Board
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The paper links to the following strategic priorities (please tick)

Deliver outstanding care locally		Collaborative system leadership to deliver better patient care	
Retain and develop outstanding staff		Be enterprising	
Invest in research & innovation to deliver excellent patient care in the future	x	Maintain excellent quality, operational and financial performance	

The paper relates to the following Board Assurance Framework (BAF) Risks

BAF Risk	Please Tick
1. If we do not optimise quality outcomes we will not be able to provide outstanding care	
2. If we do not prioritise the costs of the delivering the Transforming Cancer Care Programme we will not be able to maintain our long-term financial strength and make appropriate strategic investments.	
3. If we do not have the right infrastructure (estate, communication & engagement, information and technology) we will be unable to deliver care close to home.	
4. If we do not have the right innovative workforce solutions including education and development, we will not have the right skills, in the right place, at the right time to deliver the outstanding care.	
5. If we do not have an organisational culture that promotes positive staff engagement and excellent health and well-being we will not be able to retain and attract the right workforce.	
6. If we fail to implement and optimise digital technology we will not deliver optimal patient outcomes and operational effectiveness.	
7. If we fail to position the organisation as a credible research partner we will limit patient access to clinical trials and affect our reputation as a specialist centre delivering excellent patient care in the future.	
8. If we do not retain system-side leadership, for example, SRO for Cancer Alliance and influence the National Cancer Policy, we will not have the right influence on the strategic direction to deliver outstanding cancer services for the population of Cheshire & Merseyside.	
9. If we do not support and invest in entrepreneurial ideas and adapt to changes in national priorities and market conditions we will stifle innovative cancer services for the future.	
10. If we do not continually support, lead and prioritise improved quality, operational and financial performance, we will not provide safe, efficient and effective cancer services.	

Equality & Diversity Impact Assessment		
Are there concerns that the policy/service could have an adverse impact on:	YES	NO
Age		x
Disability		x
Gender		x
Race		x
Sexual Orientation		x
Gender Reassignment		x
Religion/Belief		x
Pregnancy and Maternity		x

If YES to one or more of the above please add further detail and identify if a full impact assessment is required.

The Clatterbridge Cancer Centre
NHS Foundation Trust

Research Strategy (2020 - 25)

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Foreword

The Clatterbridge Cancer Centre NHS Foundation Trust is committed to delivering world class cancer care. There is a clear recognition and desire to ensure that research and innovation is an integral theme and key driver of the core business of its activities. The opening of the new flagship state of the art hospital at the heart of the knowledge quarter in Liverpool provides a unique opportunity to re-examine, re-invigorate, and refresh the strategic plan for research endeavours. The guiding principles and priorities outlined in this document reflect views that have emerged from wide consultation within the organisation as well as local and national drivers for clinical and academic research. It is envisaged that implementation of the five-year plan will have a positive impact on

- Patient outcomes, experience and journey
- Research culture, ethos and outputs within the organisation ensuring reputation in provision of world class cancer care
- Staff engagement and education both within the organisation and as system leaders for cancer services

It is our hope and belief that this aspirational and ambitious plan underpinned by strategic investment will transform cancer care and outcomes for the population that we serve and undoubtedly have reputational impact.

Mission statement

“The Clatterbridge Cancer Centre will improve the choices, experience and outcomes for patients with cancer by ensuring research and innovation is integral to its core service.”

Context and Background

The Clatterbridge Cancer Centre NHS Foundation Trust (CCC) is the major provider of non-surgical cancer services within the Cheshire and Merseyside geographical footprint. It cares for over 27,000 patients per year and manages in excess of 210,000 patient contacts for treatments and appointments. The staff in CCC continue to deliver high quality patient facing cancer care which is reflected in patient satisfaction surveys. Over the last 5 years CCC continues to make incremental gains in clinical trials activities and academic pursuits. CCC has made significant progress in delivery of cancer services and continues to transform and influence cancer care within the region.

It is widely recognised that integration of research activities in all aspects of patient care has a significant positive impact on staff performance and patient outcomes. The organisation has strengthened the focus on research and reformed the management within the research and innovation (R&I) directorate to transform and enhance research performance and awareness. The reconfiguration of clinical services into directorates and embedded tumour site reference groups (SRGs), and a geographical hub and spoke model will further facilitate a renewed focus on enhancing research participation and outputs to address regional population needs.

Whilst there are areas of research excellence within CCC that need to be recognised and rewarded, there is an urgent need to invigorate and facilitate research more widely within the wider organisation to address population needs.

National drivers

The NHS Long term plan (LTP) published in January 2019 is a timely reminder of the critical importance of R&I to drive future medical advances with benefits for patients and the wider economy. With regards to cancer, the plan outlines the need for improvements in diagnostic, treatment and follow-up pathways that are underpinned by research and innovation. The priorities set out in the NHS LTP include a radical overhaul of diagnostic standards and services and a national roll out of Rapid Diagnostic Centres.

Such initiatives will no doubt enhance molecular diagnostics, genomics, biobanking and data driven research initiatives both locally and nationally and will need infrastructure and staffing commitments. CCC needs to be ready to capitalise on these programs and ensure that it is ideally placed to secure funding from the appropriate schemes for the benefit of patients in the region.

The NHS LTP places particular emphasis on screening programs (bowel, lung and HPV driven cervical cancers), infrastructure investments for pathology and imaging services, and expansion of patient participation in research programs, personalised care pathways, inequalities in cancer care, and quality of life metrics and issues. The themes set out in the NHS LTP are fertile ground to focus research initiatives within CCC to align with national strategy.

In addition to the NHS facing initiatives there is an urgent need for CCC's research strategy to judiciously align with the stated objectives and priorities of national funding organisations (such as **Cancer Research UK, NIHR, MRC, BRC**) to secure external project and programme grant funding.

Securing CR-UK/NIHR Experimental Cancers Medicine Centre (ECMC) status is a major achievement for the region and for CCC. The development of early phase trials MDT and clinics together with increased promotion of early phase studies locally and

nationally has served to improve early patient access to novel and emerging therapies as well as enhancing reputation. It is essential that the CCC research strategy remains attractive for collaborative research with industrial partners to ensure that our patients have continued access to promising and emerging therapies and technologies. For example, CCC has made significant contributions to the emerging field of immuno-oncology and is ideally placed to build on its achievements.

As the main provider of cancer services within the region and as host of the Cheshire and Mersey Cancer Alliance (CMCA), it is imperative that CCC develops a culture to provide leadership in driving and influencing cancer care and research initiatives that harness local strengths and address population needs across the whole patient journey.

Local and regional drivers

The Cheshire and Merseyside region has a unique blend of circumstances that must be addressed in any regional research strategy.

- Nationally, the region has the second highest rate of co-morbidities that impact patient outcomes.
- It has the highest rate of presentations through emergency routes and A&E departments and it is well recognised that such patients have the poorest outcomes. This is at least partly due to suboptimal uptake and delivery of screening programs.
- Regional accrual into clinical trials, although improving within the region, lags behind national averages and metrics in comparator organisations.

The physical co-location of the clinical service and biomedical research capability within the University of Liverpool (UoL) will undoubtedly be a key enabler for greater interactions that promote research collaborations. As the service-oriented demands on NHS staff increase, the organisation needs to ensure that a greater number of NHS staff are given the space and time to become research active and represent CCC in national and international forums.

The issues outlined above form part of the basis for the proposal outlined in the Baker and Cannon report of 2007 to relocate the clinical service to the Liverpool site. While the move will help overcome some of the barriers, it is essential that service reconfiguration goes hand in hand with a comprehensive overhaul of research initiatives that catalyse transformative change.

Despite the circumstances, regional patient outcomes in 2018 have improved significantly and are more in line with national averages and is a reflection of the emphasis on patient facing care that has consistently scored highly in national patient surveys. The migration of the clinical service delivery to a Site Reference Group (SRG) -

embedded model is an important step that should help the research agenda. Dedicated SRG research leaders will serve to embed a focused commitment to research within the organisation. Planning and implementing a refreshed research strategy and building on recent successes will require continued collaboration and ongoing discussions with CMCA, regional academic partners, Liverpool Health Partnerships (LHP), regional Clinical Commissioning Groups (CCGs), patient ambassadors, other stakeholders, and the city council.

Strategic themes

Clinical trials delivery and infrastructure:

It is widely recognized that, where possible, clinical trial recruitment needs to be the default pathway for patients, and that research and innovation needs to be integrated into organisational structures and functions. Research active organisations attract high-quality staff. Despite the achievements summarized above, significant challenges remain to further enhance clinical trials and research activities within the Trust. Given the cancer burden within the region, the provision of, and recruitment into, clinical trials as a function of new patient referrals is well below the national average (Brain, Breast, Colorectal, Gynaecology, Lung, Skin: <5%; Upper GI, Haemato-oncology, Head and Neck, Urology: 5-10%) and is currently between 10 – 15% (NHS target: > 20%).

The Directorate of Research and Innovation has undergone significant changes in management and governance arrangements to address trial set-up times and recruitment to time and target. This is now more in line with other specialist trusts. Historically, the number of trials (active, in set-up, and follow-up phases) offered to our patients within the region lagged behind other cancer care providing trusts nationally and this will be redressed through this strategy. The directorate has put in place robust arrangements to collect real time metrics and statistics that are now subject to monthly performance and quality reviews. The appointment of a dedicated team and leadership has also helped in streamlining and ensuring fiscal oversight and health that for the first time has brought together the clinical and research interface. In addition to monitoring trials activities, collated data highlights research achievements within the Trust and provides updates on new grant funding and publications. This initiative is essential to celebrate a positive research culture and benchmark performance with national and international comparators. Oversight committees within the directorate have ensured engagement and participation of the wider Trust both in the clinical and allied service sectors.

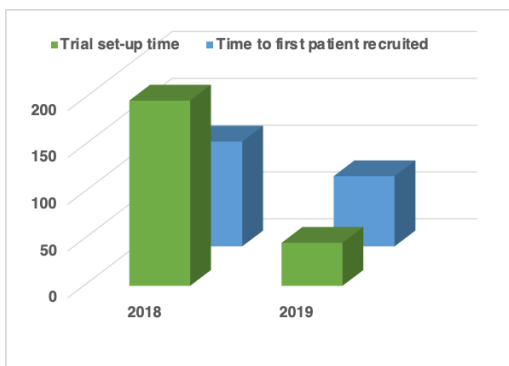


Figure 1: Trial set-up times and Time to first patient recruited in CCC (2018 and 2019)

As a direct result of the changes instituted and streamlined activities, there has been a surge in trial recruitment in 2019-20 and the target to reach 1000 patients has been achieved ahead of year end and without addition to R&I staff numbers. This compares to historical figures of <500 per year prior to 2018. In addition, there has been a significant reduction in trial set-up times from an average of 198 days in 2018 to 27 days in 2019 (Figure 1). Similar gains are

apparent in time to first patient recruited (112 to 90 days). Although some of the significant gains in trial recruitment resulted from enhanced recruitment to observational studies, CCC nonetheless is committed to research into novel agents and achieved top 10 status in two of the NIHR activity league tables in 2019, including largest increase in the number of research studies opened and the greatest increase in commercial contract studies opened.

The clinical trial activities have generated income of £4.2M for the Trust between 2014-19 and savings of £1.5M that has been re-invested to support R&I activities. The Liverpool Cancer Trials Unit (LCTU, hosted by UoL was unable to regain CR-UK Programme status last year and this has presented a major challenge to all stakeholders including CCC; top-up funding from the R&I Directorate was required to ensure that the development and co-ordination of Liverpool-led clinical trials was not compromised. The LCTU has recently merged with the UoL Clinical Trials Research Centre to form the Liverpool Clinical Trials Centre (LCTC). Bringing together a wealth of internationally recognised expertise in statistics and trials methodology, the LCTC will retain a strong focus on Cancer, with a Lead Clinician and leadership group to oversee and develop the Cancer portfolio. The LCTC is underpinned by major and unprecedented new investment by UoL in a number of core posts and should now be in a much stronger position to regain CR-UK programme funding compared to the previous LCTU.

In partnership with UoL, securing ECMC status has been a major achievement and has enhanced early-phase trial availability and recruitment. This is providing our patients with access to novel and emerging therapies. Whilst it is hoped the activities of the ECMC will ensure a successful renewal bid in 2022, the research strategy aims to address additional requirements to help plan and facilitate the process.

The R&I Directorate staff have played a major role in planning and facilitating the launch of the unique LHP-SPARK collaborative that aims to provide a single point of access for delivering high-quality research governance, costing, contracting and on-boarding of clinical trials and research projects within the region, thereby simplifying contract negotiations and minimizing set-up times. The achievements are all the more noteworthy as the gains have been achieved with minimal growth in staff numbers and the need to focus on ensuring smooth transition to the new site in Liverpool.

The barriers to research activities within the trust are multi-factorial. Academic leadership has enhanced activities for certain tumour sites. While some of these (e.g. breast and haemato-oncology) involve commonly occurring cancers, local population needs have not always been adequately addressed. In addition, there has been a year-on-year reduction in NIHR funding from the North West Coast (NWC) Clinical Research Network (CRN) that requires mitigation.

CCC as a tertiary cancer care provider is duty bound to ensure that patients have access to novel and emerging therapies as part of interventional studies, as well as a balanced trials portfolio that includes observational and real-world data studies. Although clinical academics and NHS staff have major roles in national and international forums, service demands and other factors have hampered translation of research activities to leadership of Liverpool-led trials. Job planning conversations and appraisals need to include research activities, and NHS staff will require dedicated research PAs. There is a need for a concerted effort to recruit and retain outstanding staff to the organisation as highlighted in the Trust strategic priorities with protected time for

research activities. There is also a need to facilitate greater interactions and collaborative working between academics and NHS staff within and outside the organization, particularly with discovery science interests in regional academic institutions such as UoL. In addition, staffing numbers involved in delivering the research agenda within CCC is amongst the lowest among comparator Trusts and organisations.

To enhance performance and productivity of the Directorate there is an additional requirement to strengthen key aspects of the R&I staffing infrastructure such as additional research nurses and biobanking staff (to support ECMC and common cancers), a 'quality, performance and innovation' lead, 'partnerships and sponsorship' lead and a project manager for research awareness and communications to deliver strategic goals.

Academic research

The ratio of academic staff to personnel in the service delivery sectors of the organisation is currently one of the lowest compared to other cancer care hospitals and Trusts. Academic oncologists face increasing demands from service commitments that compromise research activities. The recent appointment of a Chair of Immuno-oncology is a step in the right direction to support further activities in a sphere of perceived strength and ECMC activities. Failure to secure an NIHR BRC, loss of CR-UK Centre status and a significant reduction in NIHR funding from the NWC CRN has further compromised institutional funding for individual researchers that is not always possible to mitigate.

Although charitable income to the Trust has increased over the last few years it was understandably directed towards the new build and infrastructure. It is hoped that over the next 5 years as the demands of the new hospital reduce, investment can be redirected to the research and innovation agenda and will pump prime projects that are more likely to enhance outputs and generate external income. Despite areas of excellent cancer research activity within UoL, there is a perception that the depth and

breadth of activity is not sufficient to be included in the current bid for BRC status. Moving forward it is essential CCC supports and fosters an environment for growth in academic oncology to regain a competitive edge to lead on future bids for an NIHR BRC, CR-UK Centre and CR-UK CTU programmes. These efforts will, of course, require close collaboration, co-operation, and discussions with the UoL Faculty of Health and Life Sciences.

Other than Breast Cancer and Haemato-oncology, academic oncology in Liverpool has historically been focused on less common cancers. UoL's perspective on cancer research was shaped by the 2018 UoL Review of Clinical Research which recommended the prioritisation of a small number of tumour sites (Haemato-oncology, Head and Neck, Hepato-pancreato-biliary Cancer and Uveal Melanoma). Although such an approach does not impact directly on clinical trial recruitment, it clearly creates a challenge for CCC which has a responsibility to address the needs of the entire local population. The creation of the Liverpool Cancer Research Institute (LCRI) will provide CCC with the opportunity to work in partnership with UoL and NWCR to collectively shape the future of academic oncology. Furthermore, the Liverpool Health Partners (LHP) Cancer Programme, which is aligned with the NHS 10-year plan for Cancer, provides a collaborative framework for a broader research agenda that extends beyond biomedical research and aims to tackle all aspects of the patient journey including prevention, screening, early diagnosis, treatment, survivorship and end-of-life issues. Within the "cancer treatment" part of the LHP Cancer Programme, key themes include trial delivery (in collaboration with the NIHR NWC CRN), trial leadership (in collaboration with the LCTC) and ECMC.

As the sole provider of radiotherapy services in the region, CCC has already assumed a leadership role to coordinate services and research efforts within the northwest. As well as supporting focused research and teaching activities within the University, NHS organisations such as CCC have a duty of care to increase academic and NHS-based research activities that address local population needs. This will require CCC to play a leading and influential role in discussions with UoL, LHP, other partners and

stakeholders to ensure wider patient benefit. Developing a strategy for radiotherapy research in Liverpool will be one of the key priorities over the next 3 years.

Since 2011, the Clatterbridge Cancer Charity, through funding grants (~£120,000 p.a.), has pump-primed research development projects to facilitate external funding applications. There is recognition that moving forward the funding for the scheme will need to be increased. As a start, funding for the scheme has been increased to £250,000 p.a. for 2019-20 with a similar commitment for 2020-21. The scheme has been reconfigured to promote greater collaboration between the academic and NHS community with more robust governance arrangements and closer monitoring of impact (publications, external grant funding etc.).

A major success in recent years is the establishment of the jointly funded Clinical Research Fellowship scheme which supports specialist trainees in oncology to undertake a period of academic research within UoL. The program has so far supported 4 academic fellows with the express aim of nurturing local talent and for succession planning. There is an urgent need to ensure that the funding for this endeavor is maintained and that a fully costed plan is in place for retention of successful trainees as well as securing a pipeline of research leaders for the future.

Figures from the last 5 years indicate that on average academic staff generated twice as much income for CCC, from clinical trial activities, compared to NHS clinicians. Although research-active NHS clinicians do generate income for the Trust, current metrics suggest that less than 10 such individuals are research active at present. To fulfil CCC's research potential, there needs to be more engagement with UoL and vice versa, and NHS staff who contribute to the UoL through research and teaching should be encouraged to apply for honorary UoL appointments where appropriate.

R&I activities within non-clinical service departments within the Trust is currently and largely the domain of clinically facing Directorates. Other than medical physics, the involvement of allied healthcare staff in R&I activities is minimal. This can potentially be

addressed by modest investment to promote research awareness and participation within pharmacy, nursing, allied healthcare professionals and Information Technology (IT) departments by enabling postgraduate pursuits aligned to ECMC and academic staff.

The demands of service delivery within the NHS means that there is inadequate time and resource to prepare grant applications, publications and undertake statistical tasks. Provision of such measures in the research strategy will likely enhance income generation and outputs, transform the research culture and ethos within the organisation, and enhance the Trust's reputation.

NHS and academic staff need to be enabled to participate in and attend national and international research forums. Although the support for this is currently derived from Chief Investigator/Principal Investigator funds generated from clinical trial activity, there is a need to supplement the funds for wider benefit and to promote research awareness, networking and participation that will undoubtedly translate into patient benefit.

In the first instance, there is an urgent need to expand the current academic workforce with the explicit aim of strengthening existing research communities and nucleating new ones. Subject to agreement by UoL, it would be reasonable to increase academic appointments at the rate of at least 1 per year for the next 5 years. Such investment is likely to significantly impact research performance within the wider organisation if the new academic posts fulfil their intended functions.

Cross cutting themes

Diagnostics

In cancer, there is an increasing focus on streamlining rapid diagnosis and screening pathways underpinned by molecular diagnostics and state-of-the art imaging capability as articulated in the NHS LTP and funding commitments therein. The explosion in targeted therapies in cancer means that every organisation involved in delivery of cancer services needs to plan and prepare itself for this emergent challenge. Although

some funding for such efforts will be available from NHS England and the Department of Health, it is likely that there will be an expectation and need to supplement this resource. Although such efforts are more likely to impact routine service delivery and budgets, it is essential that research is at the heart of such projects to find innovative solutions in partnership with CMCA, CCGs and stakeholders.

Genomics and Biobanking

A fundamental tenet of healthcare is to learn from every patient's experience and disease characteristics. This is particularly true in cancer medicine with the increasing adoption and emergence of targeted therapies into routine practice. In line with the NHS LTP and National Cancer Transformation Program there is a need to invest in as well as support and promote genomics and biobanking initiatives. CCC and Liverpool, in partnership with Manchester, has assumed a leadership role in the northwest region for genomics initiatives. In addition, there has been steady progress in biobanking initiatives embedded within R&I.

Genomics is not always funded within investigator led clinical research, and there is an increasing reluctance among national funding bodies to support biobanking initiatives. To ensure a steeper upward trajectory there is an urgent need to secure infrastructure and adequate staffing within R&I to conform with national guidance and targets. Such investment is likely to enhance correlative research. Prime examples are the unique haemato-oncology and ECMC led repositories that systematically biobank patient samples collected locally and nationally and are supporting UK genomic initiatives and generating outputs of significant impact. The model is easily transferable to other areas of oncology within CCC but the funding for this resource is not secure in the long term.

Digital and data initiatives

There is much focus on the importance of digital and data initiatives within the NHS. The National Cancer Registry Analysis Service (NCRAS) is systematically collating data from multiple hospital and primary care databases. CCC has secured significant funding for a Global Digital Exemplar initiative to address service needs. The UoL and Liverpool

CCG are nationally recognised to be at the forefront of data driven research. Initiatives within haemato-oncology and lung cancer radiotherapy have engaged with and acquired data from NCRAS and are templates to develop and enhance such initiatives by fostering regional collaboration. Digital and data driven research is essential to inform good clinical practice as well as clinical and academic research.

With focused investment, the cross-cutting themes of diagnostics, genomics and biobanking, digital and data research within CCC will mean that it is well placed to lead on personalised patient care. Such an undertaking is more likely to increase tumour site agnostic collaborations within the organisation.

Palliative care and survivorship

Palliative care staff within CCC and other local NHS Trusts are recognised leaders in their field. Although UoL has made a strategic decision not to invest in this area, CCC has a duty to optimize end-of-life issues as an integral part of patient care, promoting patient-facing research to ensure quality of life. This will require additional resource, dialogue with LHP, and staff recruitment with protected research time.

Radiotherapy

As the only provider of radiotherapy services across Cheshire and Merseyside, it is imperative that we deliver and ensure access to research in radiotherapy. The new strategy offers opportunity to refresh and collate the opportunities, regionally, with UoL and the wider radiotherapy network. Collaborative initiatives are already underway and will be developed further over the next 3 years.

Partnerships and Collaborations

As the major provider of cancer services in Cheshire and Merseyside, CCC is committed to leading and driving the agenda for R&I. It is best placed to identify the unique challenges facing patients with cancer in the region. As cancer care will continue to be provided by other Trusts within the region, CCC will work with CMCA and LHP to ensure that research and innovation are at the heart of the delivery of cancer services and span all aspects of the patient journey. The domains identified within this refreshed strategy will also require exerting influence on and partnership working with other NHS Trusts (e.g. LUH, LHCH, LWH, Walton Centre, WUHT, STHK, COCH and WHH), and academic partners (UoL, Liverpool John Moores University, Edge Hill University). In partnership with UoL and NWCR, CCC will play a major role in ensuring that the proposed Liverpool Cancer Research Institute (LCRI) is closely aligned with CCC's research agenda, commitments and goals. The precise format of the LCRI is still under discussion among the three partners but it will essentially be a home for all biomedical cancer research in Liverpool. By harnessing all available scientific expertise, fostering innovative research collaborations and stimulating forward and reverse translation, the LCRI should serve as a launch-pad for a credible CR-UK Centre bid and LECMC renewal application.

Where necessary CCC will partner more widely within the North West (e.g. The Christie, Universities of Manchester, Blackpool, Lancaster and Preston) and other NHS Trusts. Regionally, we have supported the appointment and work with cardio oncology, onco-geriatrics and psycho-oncology to ensure that the holistic needs of patients with cancer are met. Research opportunities should be integral to this service model. In an increasingly global economy, CCC will seek wider partnerships nationally and explore twinning with an international cancer centre for mutual benefit. Work has already started to partner with pharmaceutical companies and CROs (such as IQVIA) to gain preferred site status, especially for early-phase clinical trials so that our patients have access to promising treatments.

To ensure that our patients have the best possible outcomes we will continue to pursue a civic agenda for service delivery and R&I with the regional CCGs and local councils.

Research awareness and education

Since mid 2019, R&I now submits regular performance reports to the institution that highlight research achievements and metrics. In addition, research and innovation is now increasingly part of the agenda in all Trust deliberations. The success of the research strategy is dependent on ensuring that a larger proportion of our workforce is research aware, ready and active. This will require close partnership with the education directorate to plan study days for research methodology for the benefit of staff.

Two immediate initiatives that are in the planning stage at the new Liverpool site and should have impact are:

- 1) Monthly seminars with invited internal and external speakers identified in collaboration with SRG Research Leads and the Clatterbridge Committee for Research Strategy.
- 2) An annual 'Research@Clatterbridge Day' for dissemination of research achievements and endeavors to staff, patients and carers. This will also have a positive impact on focused fundraising for research.

It is likely that the two schemes, once initiated, will attract sponsorship from pharmaceutical companies. The relocation of CCC to the knowledge quarter will facilitate greater interactions with academia. We will create a panel of 'Patient Ambassadors' to foster public participation to influence research strategy and implementation.

Embedding research within Site Reference Groups

The migration of service delivery to an SRG model has provided an opportunity to institute a new scheme to address the culture and ethos within the organisation. Since August 2019, the directorate of R&I has overseen the appointment of Research Leads for each SRG who work closely with their respective SRG Leads. The SRG Research Leads forum meets on a regular basis to highlight needs, barriers and share best practice. The SRG Research leads will play a key role to ensure that the proposed research strategy is implemented over the next 5 years and beyond. Details of the roles, responsibilities and Terms of reference for the SRG Research Leads is attached as Appendix.

Patient and Public Involvement

It is essential that the CCC research strategy involves active consultation and participation of patients, carers, commissioners, voluntary, charitable and community organisations. It is essential that such engagement is a two-way process and the strategy is mindful of the impact on patient experience, care and outcomes and views of the public at large. A PPI strategy will be formulated within the first year of the plan.

The research directorate is committed to ensuring that patient and public involvement (PPI) is integral to the planning, delivery and evaluation of the research strategy in accordance with published NICE guidance.

Financial investment for implementing and delivering the strategy

To address, implement and deliver the refreshed research strategy will require inward investment. The investment sought is largely from charitable donations to the organisation and are attested to be realistic. The investment sought is modest in comparison to organisations that are similar to CCC and are responsible for cancer care delivery in other regions. A detailed financial statement with breakdown of year on year investment sought and projected costs is attached in the Appendix. The 5-year approximated costs of individual workplans in the domains identified in this document are as follows:

Clinical Trials Infrastructure	£3.5 M
Academic Research and workforce	£6.0 M
Cross-cutting themes	£1.5 M
Research education and awareness	£0.5 M
Partnerships and Collaboration	£1.0 M
Total (5 years)	£12.5 M

Even if current levels of income do not increase, the projected surplus, after deduction of research delivery costs, from commercial trial activities generated by academic and NHS staff are estimated at £1.5M and 0.75M, respectively, over the next 5 years. This is likely to be an underestimate as increased activity is likely to generate significant additional income. The projected increases in NIHR portfolio trial delivery should help secure additional funding from NWC CRN that may mitigate some of the investment needed. It is likely that the enhanced research activities will generate additional external grant income and will be a key metric to ascertain and monitor impact. Such investment will radically transform the culture and ethos for R&I within the organisation and have reputational impact.

Key goals, deliverables and monitoring

Key goals and deliverables to measure success:

- CCC has recruited over 1000 patients to clinical trials in 2019-20 and will strive to increase numbers by 10% per annum to achieve a target of 1750-2000 patients into portfolio (commercial and non-commercial; interventional and observational) by 2025.
- Continue to improve trial set-up times and time to first patient targets so that they are in line with national averages and edicts
- Increase CCC sponsorship of Liverpool-led trials by 15% by 2025.
- Appoint to 5 new clinical academic positions over the next 5 years
- Double the number of research-active NHS consultants in CCC over the next 5 years.
- Recruit 5 additional Clinical research fellows over the next 5 years
- Offer 2 postgraduate studentships for allied healthcare staff per year
- Incrementally increase investment for the Clatterbridge research funding scheme to £500,000 p.a. over the next 5 years.
- Establish and sustain a monthly seminar series and an annual 'Research@Clatterbridge Day'.
- Increase publications emanating from CCC over the next 5 years
- Increase external project and programmatic grant funding especially from CR-UK and NIHR funding streams.
- Secure renewal of the CR-UK/NIHR ECMC programme through additional investment and recruitment and by optimizing early-phase trial development/delivery, biobanking and industry engagement.
- Help to secure CR-UK Centre status by ensuring the success of the LCRI.
- Help to secure CR-UK CTU programme funding by driving and facilitating trial leadership and engagement with the LCTC.
- Be prepared and plan for a cancer component to the BRC centre bid.

The R&I directorate will be responsible for developing workplans that incorporate performance monitoring and metrics. This will be developed within 6 months of publication of this document. While some changes will need to be addressed with haste, individual workplans will mirror the gradual increase in investment over the next 5 years. 'Task and Finish' groups will be constituted with the help of The Clatterbridge Committee for Research Strategy, SRG Research Leads, as well as academic and NHS staff from the wider organisation with the necessary skills and aptitude to facilitate and achieve the strategic goals. An annual progress report will be submitted to the Trust Board for critical evaluation.

Emerging needs and contingency planning

This strategy document sets out a comprehensive vision and an ambitious plan to enhance research activities within the organisation over the next 5 years. It is understood that the organisation needs to remain vigilant and address emerging technologies, infrastructure and therapies with contingency measures. Although no additional investment is currently factored into the budget sought, as it is difficult to forecast, there may be additional pressures to consider additional funding for estates, technologies, future work force planning (in service sectors such as pharmacy, radiology and diagnostics to support research delivery) and infrastructure. Income generated from the proposed increase in research activities can potentially be diverted to mitigate the impact of such a consequence. It is also assumed that comparator organisations will continue to advance and improve their research performance and our achievements and targets will need to be benchmarked on a regular basis for reputational impact.

Summary

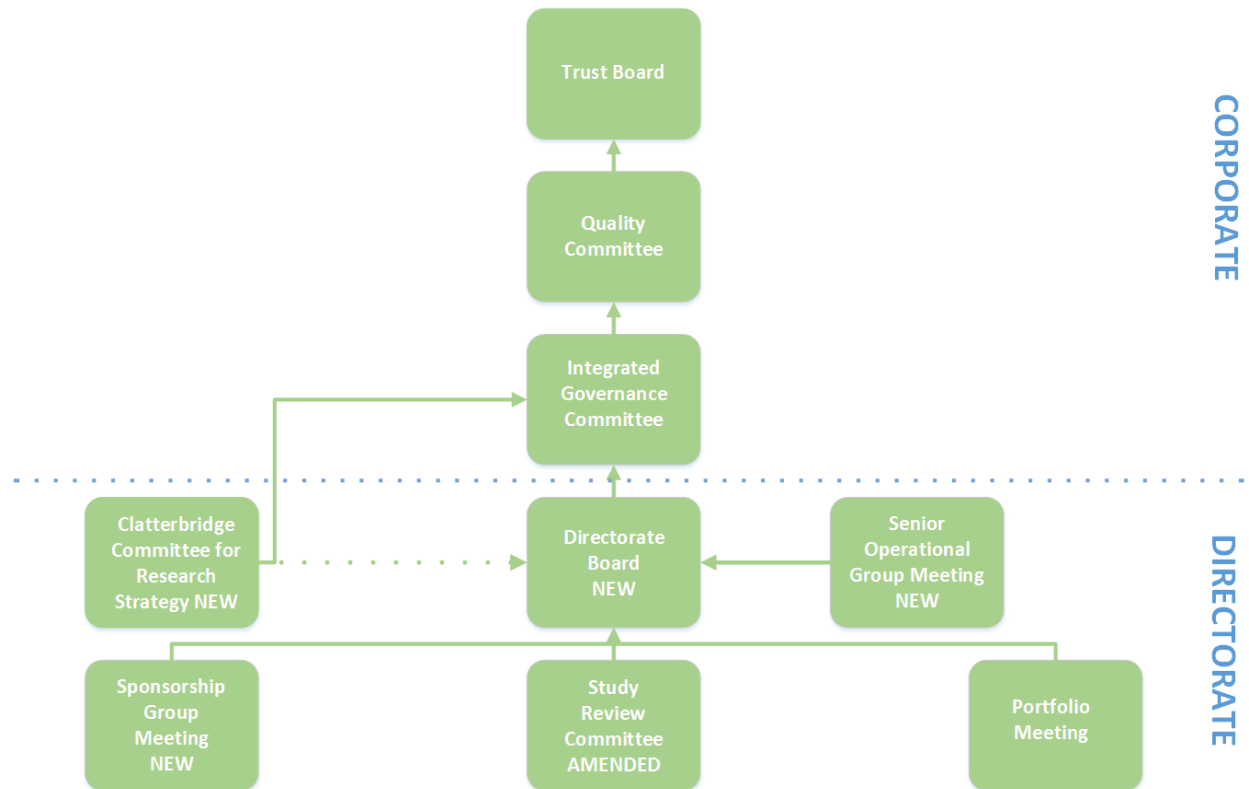
This refreshed research strategy for the next 5 years articulates an ambitious and aspirational plan to enhance the culture and ethos, and address clinical, academic sector needs within the organisation. It will ensure that CCC incorporates research into all core business activities that span all aspects of the patient journey and is research ready, as it continues to deliver world class cancer care in alignment with national, regional and local drivers to improve patient choices, experience and outcomes.

Appendices

NHS Long Term Plan

<https://www.longtermplan.nhs.uk/publication/nhs-long-term-plan/>

Revised Governance structure of the Directorate of R&I



Terms of Reference for SRG Leads

Title:	Terms of Reference – Site Reference Group Research Leads Meeting
Aim:	1. To ensure that research is fully integrated into each Site Reference Group (SRG) and to ensure SRG research strategies are agreed, written and implemented.
Specific Work Areas:	<p>2.1 Ensure that patient access to research is promoted and to support the development of a trials portfolio for the SRG that meets the Trust research strategy.</p> <p>2.2 Ensure members of the SRG work effectively together to enhance trial recruitment across the sectors</p> <p>2.3 Ensure mechanisms are in place to support entry of eligible patients into agreed clinical trials.</p> <p>2.4 To ensure that remedial action is taken promptly where unacceptable risks are identified.</p> <p>2.5 The Clinical Research Lead will be responsible for the promotion of the Trust research strategy within the SRG.</p> <p>2.6 The Clinical Research Lead will develop and promote access to clinical trials within their SRG portfolio and support the Trust research strategy to create a research active organisation.</p> <p>2.7 Attend meetings to review trial recruitment and ensure that trajectories for recruitment are achieved. Support the R&I management team with ensuring appropriate performance review of trial recruitment.</p> <p>2.8 Work with Clinical Director of R&I and Director of R&I</p>

Operations to ensure immediate risks relating to research governance and any action plans arising from are implemented.

2.9 To ensure the timely submission of National funding bids that enhance the opportunity for investment for CCC to ensure that research infrastructure can be developed to the benefit of patient care.

2.10 Horizon scan NIHR badged studies to ensure the SRG research portfolio is optimum and that all appropriate trials are open at site. Work with the North West Coast Clinical Research Network to ensure a collaborative approach.

2.11 The Clinical Research Lead will work with regional MDT's to highlight access to oncology trials and enhance the reputation of CCC as leaders in research

2.12 Work in collaboration with SRG Lead Clinicians, local stakeholders and the Clinical Director of R&I to deliver and develop a local research strategy

2.13 Foster effective collaborative working between research lead and departments to provide high quality, patient care that enhances the reputation of CCC nationally.

Reporting Arrangements:

3.1. The SRG Research Leads will be accountable to the Integrated Governance Committee

3.2. The SRG Research Leads will produce an annual report and identify progress to the Trust Board.

3.3. The SRG Research Leads will ensure all relevant actions, changes in practice or lessons learnt will be disseminated around the wider organisation via direct

email communication to relevant personnel.

Membership:

4.1. The SRG Research Leads meeting will include:

R&I directorate:

Clinical Director of Research and Innovation (Chair)
Director of Research and Innovation Operations
Research Manager
Lead Research Nurse
R&I Finance Officer

**Site Reference Group Research
Leads/Representatives**

4.2. Attendance by Members

Clinical Director for Research and Innovation or their deputy must attend.

Members may send deputies or representatives on their behalf if deemed appropriate.

4.3. Attendance by others

Lead managers may be co-opted to attend as necessary to present papers or to discuss issues.

Quorate:

Minimum of five members/representatives.

Authority:

Recommendations are made to the Integrated Governance Committee. The SRG Research Leads can make recommendations on any matters relating to research and innovation.

The SRG Research Leads may obtain independent professional advice and seek the attendance of external advisors with appropriate experience and skills, if deemed necessary

Notice of Meetings:

An agenda of items to be discussed and supporting papers

will be forwarded to each member and any other attendees no later than 5 working days before the date of the meeting

Standard Items

Standard Agenda items will fall under the following headings:

1. Standard Business
2. Research Strategy
3. External Funding Opportunities
4. Internal Funding Business Cases
5. Research Updates
6. Key Operational Updates

Frequency:

The SRG Research Leads will meet as required with a minimum of six face-to-face meetings in the first year.

Detailed breakdown of projected costs in the refreshed strategy

R&I Strategy Refresh Finance Summary

	2020/21	2021/22	2022/23	2023/24	2024/25	Strategy Proposed Budget
Research Strategy Activity Funding Proposal						
	£	£	£	£	£	£
Academic Research & Workforce	531,795	753,879	868,217	1,285,985	2,793,555	6,233,432
Clinical Trial Infrastructure	271,625	722,213	604,029	682,316	1,540,703	3,820,886
Cross Cutting Themes	33,760	358,767	360,236	361,742	453,285	1,567,790
Partnership & Collaboration	92,820	95,140	97,519	99,957	102,456	487,892
Research Awareness & Education	70,000	70,000	70,000	70,000	110,000	390,000
Funding Stream - Charity Proposal	-1,000,000	-2,000,000	-2,000,000	-2,500,000	-5,000,000	-12,500,000
Research Strategy Activity - WTE	2020/21	2021/22	2022/23	2023/24	2024/25	
Academic Research & Workforce	9.85	16.20	16.00	18.00	41.50	
Clinical Trial Infrastructure	13.45	14.45	14.45	15.05	28.40	
Cross Cutting Themes	1.00	2.00	2.00	2.00	2.00	
Partnership & Collaboration	1.00	1.00	1.00	1.00	1.00	
Annual Total	25.30	33.65	33.45	36.05	72.90	

R&I Strategy Refresh Detailed Financials by Activity

Strategy Activity	Pay/Non Pay	Project Resource	Assumptions	2020/21	2021/22	2022/23	2023/24	2024/25	Total Project Budget & Actuals
Academic Research & Workforce	Non Pay	Clinical Fellow - Consumables							
			Current commitment	26,000	26,000	26,000	26,000	46,000	150,000
Academic Research & Workforce	Pay	Clinical Fellow	1.00wte Jan 20, 2.00wte from Jan 21 - add 2.00wte posts from April 24	87,500	143,500	147,088	150,765	309,068	837,920
Academic Research & Workforce	Pay	Chair Contribution	Assuming 70% contribution - 1.00wte Jan 20, 2.00wte from Oct 21 - April 23 3.00wte - April 24 5.00wte	75,376	134,845	181,695	390,640	758,917	1,541,473
Academic Research & Workforce	Pay	Senior Lecturer	Assuming 70% contribution - 1.00wte Jan 20, 2.00wte from Oct 21 - April 23 3.00wte - April 24 5.00wte	104,550	160,745	219,685	337,765	577,016	1,399,761
Academic Research & Workforce	Pay	Academic Support	Increase in Key Support Depts due increase in Academic workforce	90,391	90,391	90,391	172,373	449,195	892,740
Academic Research & Workforce	Pay	Nursing B7	appoint 1.00wte from Jan 20 & increase to 2.00wte from April 20 - 3.00wte April 21 - - 8.00wte April 24	49,679	76,381	78,290	80,248	219,344	503,942
Academic Research & Workforce	Pay	Nursing B6	appoint 1.00wte from Jan 20 & increase to 2.00wte from April 20 - 3.00wte April 21 - - 8.00wte April 24	41,485	63,783	65,377	67,012	183,166	420,823
Academic Research & Workforce	Pay	Nursing HCA	appoint 1.00wte from Jan 20 & increase to 1.5wte April 20 - 6.00wte April 24	18,122	18,575	19,039	19,515	80,012	155,263
Academic Research & Workforce	Pay	Senior CTA	appoint 1.00wte from Jan 20 & increase to 1.5wte April 20 - 6.00wte April 24	20,571	21,085	21,612	22,153	90,826	176,247
Academic Research & Workforce	Pay	CTA	appoint 1.00wte from Jan 20 & increase to 1.5wte April 20 - 6.00wte April 24	18,122	18,575	19,039	19,515	80,012	155,263
				531,795	753,879	868,217	1,285,985	2,793,555	6,233,432
Clinical Trial Infrastructure	Non Pay	LCTU	Current commitment						0
Clinical Trial Infrastructure	Non Pay	Office Accommodation	Contribution to additional space					200,000	200,000
Clinical Trial Infrastructure	Pay	R&I Research Officers	Additional Post from Jan 20 - original posts proposed to be self funding by 2022/23		93,788	32,044		33,646	159,478
Clinical Trial Infrastructure	Pay	Research Leads	Funding based on 14 SRG Research Leads		71,750	73,544	75,382	77,267	297,943
Clinical Trial Infrastructure	Pay	Pharmacy	Current commitment		34,850	35,721	36,614	37,530	144,715
Clinical Trial Infrastructure	Pay	Finance	Current commitment		70,392		73,955	75,804	220,152
Clinical Trial Infrastructure	Pay	Additional R&I Specific APA's	1apa currently awarded - a further 7 to be allocated - April 23 increase 10 APA's - April 24 increase by a further 6APA's - total 16APA's		84,050	86,151	110,381	226,282	506,864
Clinical Trial Infrastructure	Pay	Nursing B7	appoint 1.00wte from Jan 20 & increase to 2.00wte from April 20 - 3.00wte April 21 - - 8.00wte April 24	49,679	76,381	78,290	80,248	219,344	503,942
Clinical Trial Infrastructure	Pay	Nursing B6	appoint 1.00wte from Jan 20 & increase to 2.00wte from April 20 - 3.00wte April 21 - - 8.00wte April 24	41,485	63,783	65,377	67,012	183,166	420,823
Clinical Trial Infrastructure	Pay	Nursing HCA	appoint 1.00wte from Jan 20 & increase to 1.5wte April 20 - 6.00wte April 24	18,122	18,575	19,039	19,515	80,012	155,263
Clinical Trial Infrastructure	Pay	Senior CTA	appoint 1.00wte from Jan 20 & increase to 1.5wte April 20 - 6.00wte April 24	20,571	21,085	21,612	22,153	90,826	176,247
Clinical Trial Infrastructure	Pay	CTA	appoint 1.00wte from Jan 20 & increase to 1.5wte April 20 - 6.00wte April 24	18,122	18,575	19,039	19,515	80,012	155,263
Clinical Trial Infrastructure	Pay	Performance & Innovation Lead	Appoint from June 20	49,129	67,143	68,822	70,542	72,306	327,943
Clinical Trial Infrastructure	Pay	Quality Lead	Appoint from June 20	37,259	50,921	52,194	53,498	54,836	248,708
Clinical Trial Infrastructure	Pay	R&I Statistician	Appoint from June 20	37,259	50,921	52,194	53,499	54,836	248,709
Clinical Trial Infrastructure	Pay	Project Officer	Appoint April 24					54,836	54,836
				271,625	722,213	604,029	682,316	1,540,703	3,820,886

Cross Cutting Themes	Non Pay	IT	Digital Development		35,000	35,000	35,000	100,000	205,000
Cross Cutting Themes	Non Pay	R&I Non Pay Contribution	R&I Staffing consumables		15,000	15,000	15,000	40,000	85,000
Cross Cutting Themes	Non Pay	Charity Funds - R&I Projects	Future Commitments from 20/21		250,000	250,000	250,000	250,000	1,000,000
Cross Cutting Themes	Pay	Strengthening Biobank & Genom	Appoint from April 20 - 1.00wte B5 and from 21/22						
			1.00wte Band 3	33,760	58,767	60,236	61,742	63,285	277,790
				33,760	358,767	360,236	361,742	453,285	1,567,790
Partnership & Collaboration	Pay	Partnership & Sponsorship Lead	Appoint from April 20	59,613	61,103	62,631	64,197	65,802	313,345
Partnership & Collaboration	Pay	Project Management of Commur	Appoint from April 20	33,207	34,037	34,888	35,760	36,654	174,547
				92,820	95,140	97,519	99,957	102,456	487,892
Research Awareness & Education	Non Pay	Bursary	Allocated over and above CI/PI fund	10,000	10,000	10,000	10,000	20,000	60,000
Research Awareness & Education	Non Pay	Education	Would need further investigation of use of						
			Apprenticeship levy for Masters	10,000	10,000	10,000	10,000	40,000	80,000
Research Awareness & Education	Non Pay	Research Day/Seminars	Sponsorship would be sought	50,000	50,000	50,000	50,000	50,000	250,000
				70,000	70,000	70,000	70,000	110,000	390,000
Funding Stream - Charity Proposal	Income	Charity Funding required	£12.5m over 5 years	(1,000,000)	(2,000,000)	(2,000,000)	(2,500,000)	(5,000,000)	(12,500,000)
				(1,000,000)	(2,000,000)	(2,000,000)	(2,500,000)	(5,000,000)	(12,500,000)
			Reconciliation	0	(0)	0	(0)	(0)	(0)