NORTH WEST CANCER RESEARCH CENTRE@UoL:
3-YEAR STRATEGIC PLAN, 2017 - 2020

Background:
The UK’s North West has the highest cancer mortality of any region in the UK and one of the worst in Europe. Cancer mortality in Merseyside-Cheshire is ~75% higher than the European average. Improving cancer prevention, diagnosis and treatment, underpinned by world-class research and access to the latest therapies is the responsibility of many different organisations, including the NWCR Centre@University of Liverpool (UoL) and it stakeholders. The NWCR Centre@UoL opened April 1st 2014, and has made significant steps in achieving its original 5-year strategy (see Edition 1, published on the Centre website Dec. 2015). Outlined below is the composition of the NWCR Centre@UoL, its Mission and Vision Statements, its updated Goals, Strategies, Tactics and Targets for the next 3 years.

The NWCR Centre@UoL and STAKEHOLDERS:
The key partners of the Centre include:
- The University of Liverpool (UoL)
- North West Cancer Research Charity
- The University of Lancaster
- The NWCR-Institute Bangor, University of Bangor
- The regional Clinical Trials Units*
- The Royal Liverpool Broadgreen University Hospital Trust
- Aintree University Hospitals NHS Foundation Trust
- Alder Hey Children’s Hospital
- The Clatterbridge Cancer Centre
- The Walton Centre NHS Foundation Trust
- Liverpool Clinical Commissioning Group (CCG)
- Liverpool Health Partners
- Liverpool Heart and Chest Hospital
- Liverpool Women’s Hospital
- NHS Commissioners
- Cheshire & Merseyside Strategic Clinical Network
- Merseyside and Cheshire Cancer Research Network (MCCRN)
- Liverpool City Council
- Health and Wellbeing Board

* These include the Liverpool Experimental Clinical Medical Centre (ECMC), the Liverpool Clinical Trials Unit (LCTU) and the Clinical Trials Research Unit (CTRU).

**The NWCR Centre@UoL’s MISSION STATEMENT:**
To deliver world-class fundamental and translational research in the UK’s North West that increases our understanding of cancers and results in a reduced incidence of cancer, reduced health inequalities, improved survival rates, and enhanced quality of life for cancer survivors in the region.

**The NWCR Centre@UoL’s VISION STATEMENT:**
To build a strong sustainable cancer research centre that will address the serious health challenge caused by cancer, through integrating excellent cancer research with the delivery of first class cancer treatment.

**The NWCR Centre@UoL’s Centre GOALS:**
1) To encourage, facilitate and implement innovative world-class research of clinical relevance underpinned and sustained by major competitive project and programme grant awards.

2) To engage with all regional stakeholders including local authorities, local Members of Parliament, healthcare academics, Public Health England, the Clinical Networks and commissioners in order to communicate with the community to encourage healthier lifestyles, detect cancer earlier, and to reduce cancer incidence.

3) To work with the Centre’s stakeholders to promote through highest quality cancer research the provision of best treatments for cancer patients, to increase survival rates, to improve the quality of life and palliative care of cancer patients, and to reduce the health inequalities across the region.

4) To engage with NHS commissioning organisations to understand the most up-to-date evidence-based research, and how to integrate this into the cancer commissioning process.

**The NWCR Centre@UoL’s STRATEGIES to obtain the Goals and Vision:**
1. We will achieve the above goals by building a mixed economy of fundamental and translational research focused on key research areas of strength as well as science related to specific organs. The
strategy matrix consists of vertical organ-based themes and horizontal cross-cutting themes, as illustrated below. Underpinning this matrix would be the Patient Public Involvement and Engagement (PPI/E) Group, as well as interactions with the University and the NHS for both undergraduate and postgraduate training, and with Industry to ensure translation, dissemination and impact of the Centre’s research.

2. The Centre will encourage interaction and collaboration between researchers at the UoL, NWCR-Institute Bangor and the University of Lancaster, forming a network of cancer research programmes across the North West. This will also be facilitated through Liverpool Health Partners (LHP) via their Cancer theme lead, and the NIHR Merseyside and Cheshire Cancer Strategy, bringing all the relevant agendas for cancer research and care into focus.

3. By working with the UoL, the NWCR-Institute Bangor, and the University of Lancaster we will promote collaboration to deliver critical mass for research and provide researchers with access to first-class academic research Centres and Facilities with their cutting edge technological platforms, clinically-annotated Biobanks, the regions clinical trials units, and bioinformatics and biostatistical support teams.

4. The Centre will maintain its international competitiveness by working with the very best scientists in the world, offering exchange visits between the NWCR Centre@UoL and Centres of Excellence elsewhere.
5. We will specifically engage with spheres not conventionally related to biomedical studies, such as with Physics and Chemistry, in order to promote cutting-edge innovative projects where physical sciences can impact on the cancer agenda such as in radiation physics and clinical oncology.

6. We will work closely with NHS partners in primary, secondary and tertiary care to create a comprehensive clinical service for the region’s cancer patients and carers.

7. We will continue to actively engage with the Pharma Industry to enhance the translation and impact of the fundamental research undertaken.

The NWCR Centre@UoL’s TACTICS undertaken and planned to accomplish the strategic plan:

Liverpool Health Partners (LHP) and Education

1. The Centre has formed a strategic alliance with LHP with whom the Centre has non-overlapping resources and shared cancer-related aims.

2. Cancer Educational Workshops are co-sponsored by LHP & NWCR (as will be the below-mentioned Cancer Centre Seminar Series) to help promote collaborative research alliances across the NW, which will have demonstrable impact on the regional health challenges.

3. The NWCR Centre@UoL has engaged with regional and national charities, including NWCR, to organise regular educational events for the public in the UK’s North West.

4. The NWCR Centre@UoL has established a regular educational Cancer Centre Seminar Series with live-streaming for all researchers and for postgraduate students, to further encourage engagement with other Centres across the UoL, Univ. of Lancaster, NWCR-Institute Bangor as well as with LHP (see below) to establish workshops in key subject areas. It is planned that these lectures will be recorded and uploaded on the Centre’s website.

5. The NWCR Centre@UoL will continue to encourage and support the introduction of cancer teaching into the Medical undergraduate syllabus at the partner University Hospitals in the region.

6. The NWCR Centre@UoL will continue to work together with the NHS and regional Universities to acquire posts for the training of clinical academics with an interest in cancer.

7. The NWCR Centre@UoL will continue to encourage and support clinical education and research exchange programmes and collaborative grants between the UoL, Univ. of Bangor and the Univ. of Lancaster and other regional Universities, via existing supraregional, national and international links

Acquisition of Grant Funding, and Mentoring
8. The NWCR Centre@UoL will establish a grant writing advisory and mentoring group, composed of experienced researchers to aid early career investigators to obtain external funding, specifically programme grants (e.g. CR-UK/Wellcome/MRC Clinical Scientist awards, etc.), with the view of supporting career progression of younger scientists, and thereby also future proofing for a sustainable research Centre. Information will be regularly provided to researchers with respect to potential funding sources. The timelines for this internal review process will be organised in a timely manner, to allow for grant review and improvement where appropriate, as well as mock interviews if required.

9. The NWCR Centre@UoL will use matrices to regularly monitor the annual number of publications and their impact/citation factors as well as the rate of grant funding success, in order to assess the success of the systems established by the Centre to promote research activity, and to fill any gaps.

PhD Studentships

10. The NWCR Centre@UoL aims to increase the number of PhD studentships, contributed by the partner organisations. These studentships will be targeted to designated key areas particularly those with strong track records, to support new recruits or early career scientists, to address specific health issues in the NW (e.g. lung cancer, head-and-neck cancer, cervical and ovarian carcinoma), and to those research consortia promoting intervarsity collaborations across the NWCR research network. Other studentships will link into available research Centres on the Campuses (e.g. the MRC Centre for Drug Safety Science, the Centre for Genomics Research, Centre for Proteomics Research, etc.).

11. Together with the UoL, the NWCR Centre@UoL has and will continue to provide a mentoring scheme for NWCR PhD students, aiming also to link them up with an industry mentor.

Clinical Translation and Biobanking

12. The NWCR Centre@UoL has and will continue to support the local clinical trials units where possible, in order to ensure efficient clinical trial recruitment and to integrate clinical trials activity with ongoing translational work. This will be facilitated by active collaborations with the NWC CRN and via support from the Joint Research Office (JRO) and LHP.

13. The NWCR Centre@UoL will promote the continued collection of Biosamples and their high-quality storage and complete clinical annotation in the region’s Biobanks, including in the UoL’s new amalgamated Biobank (LBIH Biobank) located in the William Henry Duncan building, with the aim of providing collaborative teams of basic and clinical researchers access to consented and phenotyped biosamples, and thereby promoting translational cancer research.

Engagement with the NHS and CCG
14. As one of the NWCR Centre@UoL’s major visions and aims is to reduce cancer incidence and health inequalities in the region, the Centre established the “Liverpool Cancer Inequalities Research Network” (LCIRN) in 2016. This engages closely with the Cancer leads of the Trusts, the Cancer Lead of LHP and of the CCG, to work together on current and future planned educational, prevention and screening programmes.

Specific TARGETS of the NWCR Centre@UoL’s planned for the next 3 years include:

1. Following the recent external clinical review, work closely with the UoL and LHP to create a Cancer research strategy that will complement those of the local Trusts and of the Centre. Identify where recruitment of academic and support is required, and aid with the acquisition of these monies to fund these posts.

2. Maintain an up-to-date census of cancer research activity and groups and use this to identify areas requiring support and strategic investment. This includes a specific focus on the research pipeline connecting the lab and the clinic.

3. Via RDF pump-priming and PhD studentship funding we will facilitate new collaborative research interactions and capacity building to generate significant scientific outputs, improved external funding attainment and long-term translational impact.

4. With the aid of the grant writing and mentoring panel identify potential candidates to submit competitive programme grants. Organise information days for researchers whereby the NWCR Centre@UoL would invite grant funders (e.g. CRUK, Wellcome) as well as successful Junior and Senior career fellows to speak at the Centre, with a Q&A session. Successfully obtain at least 3 research programme grants over the next 3 years.

5. Acquire at least one basic PhD and clinical PhD studentship for 2018, and at least two of each for 2019, by pursuing a variety of funding sources in consultation with all Centre stakeholders.

6. Continue the successful NWCR Centre@UoL Annual Scientific Symposia, with involvement of internal and external speakers, school pupils, patients and interested public.

7. Implement effective live video links for transmission of seminars and workshops to Bangor and Lancaster Universities, with the aim of uploading the videos on the Centre website for later viewing.

8. Continue to work closely with LHP and NWCR to coordinate public educational events and seminars regarding cancer prevention, detection and treatment.
9. Maintain close communication with the leads of the ECMC and LCTU regarding potential reinstatement of CRUK Centre status.

10. Improve the NWCR Centre@UoL’s collaborations with Industry by coordinating increased efforts in this area with the help of the UoL’s Business Gateway and the industrial representative of LHP.

11. Establish close interactions with the Northern Health Science Alliance (NHSA) Ltd to create a collaborative network between the NWCR Centre@UoL and other Cancer Research Centres across Northern England. Through international collaborations propose a ‘sister’ network between cancer research centres, to allow for scientists/students to travel and gain experience in differing labs, thereby enhancing knowledge exchange and collaborative global science.

Reiteration number 2: 16.05.2017