

EMBARGOED: until 5 Sept 2017

**CANCER INNOVATION CHALLENGE LAUNCHES FIRST PROJECTS
AIMED AT REVOLUTIONISING CANCER CARE**

- **Five projects win funding in first stage of Cancer Innovation Challenge**
- **Innovations will help Scottish cancer patients record and report information that will inform their care**

Five innovative projects seeking to improve cancer care in Scotland have won a share of £325,000 funding from the first round of the Cancer Innovation Challenge. The Challenge, which was launched by the Scottish Government's Chief Medical Officer Dr Catherine Calderwood earlier this year, received over 90 notes of interest resulting in over 30 applications from organisations across Europe.

This first funding round is specifically seeking innovative technology approaches to recording and integrating 'Patient Reported Outcome Measures' (PROMs) and 'Patient Reported Experience Measures' (PREMs) with a view to improving cancer patient care.

All five successful projects have the potential to have a significant impact on cancer care in Scotland. They now have the funding and the opportunity to develop and demonstrate the technical and commercial feasibility of their innovation over the next three months. Two of the five will then be selected to continue to the next stage of the Cancer Innovation Challenge process which will see them receive further funding to develop prototypes over a six month period.

The organisations behind the five successful projects range from established medical technology specialists to start-ups. Scottish companies based in Elgin and the Isle of Skye are represented as well as three companies from England including one collaborating with the University of Strathclyde. The solution proposed by one of the projects focuses on young adults and teenagers with cancer while the rest have the potential for use by any cancer patient.

The five projects are:

Project name	Organisation & where based
'Remote Patient Measures'	Docobo, Surrey
'My Clinical Outcomes: Digital PROMs and PREMs Collection'	My Clinical Outcomes, London
'PROEMS – A flexible, future-proofed and integrated solution for PROM and PREM collection and use'	Openbrolly, Elgin
'OWise for Scotland: Employing the mobile app platform demonstrated to improve patient experience and oncology outcomes in a NHS Scotland ecosystem'	Px HealthCare, London
'Digital platform for Teenage and Young Adult (TYA) cancer service in Scotland'	Sitekit Health, Isle of Skye

(More information on each is detailed in the notes below)

Peter Hall is a Medical Oncologist and Senior Clinical Lecturer at the University of Edinburgh and is the clinical lead for this element of the Cancer Innovation Challenge. He says: "Being able to measure how cancer and its treatment is affecting patients from their own perspective will unlock real opportunities for patient-centred care. Insights range from an ability to monitor patient satisfaction across a whole service to enabling alerts when an individual patient reports a high risk treatment side effect, allowing early preventative management.

“We’ve had a great response to the call for applications to this first stage of the Cancer Innovation Challenge with applications from as far afield as Spain. The selection criteria spanned clinical, technological, academic and business considerations as well as patient and carer scoring. The five successful projects performed well across each element and demonstrated really strong possibilities for revolutionising cancer care in this country. We are excited to see how each of them develops during this stage of the process.”

Stuart Fancey, Director of Research & Innovation at the Scottish Funding Council, adds: “Combining the different areas of expertise in the three innovation centres, the NHS and industry, the Cancer Innovation Challenge is driving collaboration and helping Scotland to become a world leading carer for people with cancer. The response to this initial funding round is hugely encouraging and is good news for the future care of cancer patients throughout Scotland.”

The Cancer Innovation Challenge aims to inspire novel data and tech innovations to help Scotland become a world leader in cancer care. It is funded by the Scottish Funding Council and delivered by three Scottish innovation centres – led by The Data Lab and supported by the Digital Health and Care Institute (DHI) and Stratified Medicine Scotland (SMS).

The Cancer Innovation Challenge has also just launched its second funding call to seek innovative data science solutions to improve cancer care and outcomes in Scotland. Up to £425,000 is available to support and develop innovative projects that use existing NHS Scotland data to improve cancer outcomes in Scotland. The registration deadline is 27 October 2017 and the application deadline is 10 November 2017.

To find out more about the Cancer Innovation Challenge and its associated activities and funding opportunities, please visit www.cancerchallengescotland.com

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For further information, please contact:

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About the Cancer Innovation Challenge

The Cancer Innovation Challenge is a project funded by the Scottish Funding Council (SFC) to encourage Innovation Centres in Scotland to work in partnership to help Scotland become a world leading carer for people with cancer.

The project brings together three Innovation Centres, led by The Data Lab in collaboration with the Digital Health and Care Institute (DHI) and Stratified Medicine Scotland (SMS). The Innovation Centres are funded by the SFC to support transformational collaboration between universities and businesses. The Centres aim to enhance innovation and entrepreneurship across Scotland’s key economic sectors to create jobs and grow the economy.

The Challenge has two major work streams:

- 1) An open innovation funding call to identify innovative cancer data science solutions
- 2) An open innovation funding call to develop new tools for cancer patient reported outcomes and experience measures

There will be a programme of activities surrounding each work stream involving industry, the public and a variety of stakeholders in the wider health sector. The aim is to utilise NHS data to support the delivery of more effective and efficient cancer care to help derive new analytical insights into Scottish cancer data, inspire local start-ups to join in the effort, demonstrate ability to produce large scale NHS data for complex analysis under safe and secure conditions and to support informed discussion about the creation and use of synthetic data.

Organisations supporting the delivery of the challenge include:

- NHS National Services Scotland
- The Usher Institute of Population Health Sciences and Informatics at the University of Edinburgh
- The Innovative Healthcare Delivery Programme (IHDP) at the Farr Institute Scotland
- The University of Edinburgh
- The Nursing, Midwifery and Allied Health Professions Research Unit at the University of Stirling
- The Health and Social Care Alliance Scotland
- Find out more here: www.cancerchallengescotland.com

Twitter: @cancerchallscot, #DataSavesLives

The five projects are:

Project name	Organisation & where based
<p data-bbox="193 667 986 705">'Remote Patient Measures'</p> <p data-bbox="193 705 1398 831">Docobo's remote monitoring platform, DOC@HOME®, provides the means for the collection and analysis of essential patient related data (vital signs, biomarkers and symptoms) and patient outcome measures (PROMs/PREMs), anywhere, anytime. Enabling remote management of patients at home, it also allows access to tailored self-help educational content.</p> <p data-bbox="193 869 1398 1093">The solution comprises the DOC@HOME® clinical server and web based Clinician Portal, and a range of patient interaction options (CAREPORTAL®, docoboAPP® and docoboWEB®) used by the patient for interaction with their clinician (i.e. to enter daily data, or to complete their PROM/PREM questionnaires). Currently, the DocoboWEB® option is used in NHS Lanarkshire with post chemo treatment patients to complete the "SPARC" PROM once a month as part of their post treatment follow-up support. DocoboWEB has a scheduling engine whereby automated emails/texts are sent to patients at predefined periods, requesting the online completion of the SPARC PROM.</p> <p data-bbox="193 1131 1398 1256">Docobo's Cancer Challenge project will look to develop and enhance, though user and clinician engagement, the PROM solution currently live in Lanarkshire. The outcome will be multiple PROM/PREM survey capability across all cancer types and stages and interoperability with appropriate Scottish NHS IT systems to meet the requirements and vision of the NHS Scotland eHealth Strategy.</p>	<p data-bbox="986 667 1398 705">Docobo, Surrey</p>
<p data-bbox="193 1256 986 1294">'My Clinical Outcomes: Digital PROMs and PREMs Collection'</p> <p data-bbox="193 1294 1398 1361">My Clinical Outcomes (MCO) is a web-based platform for collecting and using Patient Reported Outcome Measures (PROMs) in clinical care.</p> <p data-bbox="193 1400 1398 1585">MCO is embedded around existing clinical pathways and allows patients to regularly submit outcomes data tailored to them throughout treatment and follow-up. Results are available in real-time to help monitor clinical progress and clinicians can use the data to make more informed decisions, including prioritising face-to-face reviews for those most in need. Hospitals can use the aggregate data and analytics to understand variation in outcomes across all patients to help improve overall quality and reduce ineffective activity.</p> <p data-bbox="193 1624 1398 1883">MCO has been in use in various clinical specialties in the NHS and private sector since 2011. The Cancer Innovation Challenge project provides the opportunity to work with NHS Scotland to design enhancements tailored to the specific needs of cancer patients in Scotland. This will include a mobile application that draws on existing functionality but that has dashboards and content tailored to feedback from local patient groups. An important part of the project is also to ensure that the resultant solution is interoperable with NHS Scotland IT infrastructure and patient portals in future. We are at tipping point where internet availability and patient expectations are for the first time making it possible to use digital tools to help deliver better patient outcomes.</p>	<p data-bbox="986 1256 1398 1294">My Clinical Outcomes, London</p>
<p data-bbox="193 1883 986 1951">'PROEMS – A flexible, future-proofed and integrated solution for PROM and PREM collection and use'</p> <p data-bbox="193 1951 1398 1982">PROEMS – A flexible, future-proofed and integrated system for PROM and PREM collection and use.</p>	<p data-bbox="986 1883 1398 1921">Openbrolly, Elgin</p>

The Openbrolly solution, PROEMS (Patient Reported Outcomes and Experiences Measurement System), is a radical new approach to the collection and use of information from patients. It moves from rigid, single use forms to a flexible, device-agnostic solution which will work on current or future devices. It allows for the trend towards the use of smart devices, voice recognition and passive monitoring, such as fitness trackers, and the submission of Patient Reported Outcome Measures (PROMs) from these devices to the NHS. PROEMS is designed to be open – enabling the use of a range of apps, websites, forms and systems to collect data - offering a better, more relevant experience for patients and access to a world of patient generated information for their supporting care team.

PROEMS is being co-designed and developed using “quadruple helix” innovation – an increasingly popular method where citizens, academia, public sector organisations and commercial partners working together to encourage more knowledge and more democratic access to services.

Working with the NHS and other care organisations enables OpenBrolly to design a solution that works with other systems within the organisation, and which can share best practice across organisations.

‘OWise for Scotland: Employing the mobile app platform demonstrated to improve patient experience and oncology outcomes in a NHS Scotland ecosystem’

Px HealthCare Ltd, London

Px HealthCare (Px stands for Patient Experience) developed OWise, an independently validated mobile platform supporting cancer patients during treatment.

The award winning OWise platform has been shown to improve both patient experience and patient-doctor interactions. Its fully anonymised Patient Reported Outcome (PRO) data is collected and investigated using advanced data-analytics to improve oncology outcomes

The proposal for the Cancer Innovation Challenge is to design, build and implement a prototype of an app based on the OWise platform enabling Scottish cancer patients to share real-time PRO data with healthcare providers and the clinical information system of their NHS hospital. This innovative project is aimed at bridging the gap between cancer patients’ experience, their PRO data and their healthcare providers. This may have an immediate impact on how patients perceive their treatment, how side effects and symptoms are managed and on personal outcomes. This extension of the OWise platform fits with Scotland’s Cancer Strategy, where person-centred care plays a key role in providing patients with optimal treatment. On a larger scale the insights into real-world PRO data may contribute to better spending of the NHS budget and facilitate policy making.

‘Digital platform for TYA cancer service in Scotland’

Sitekit Health, Isle of Skye

Each person’s needs are individual and require person-centred, developmentally-appropriate, needs-led interventions and support.

Teenage Cancer Trust, Macmillan and Sitekit have created a technology platform for teenagers and young adults that offers digital holistic needs assessments (PREMs) and supported self-management for patients, self-reported patient data for clinicians, and aggregated, anonymised patient data reports for NHS management and voluntary organisations partners.

Endorsed and supported by MSN for Children and Young People with Cancer in Scotland, the project team is now looking to take the technology to the next level. Building on the existing digital service, it aims to introduce, expand and evaluate the platform for the Scottish TYA (teenage and young adult) cancer service – with a particular focus on increasing patient-reported data and analysing this data to improve treatment, care, and personal outcomes for all young people with cancer worldwide.

The project will be developed jointly with MSN for Children and Young People with Cancer Scotland, NHS Lothian, Edinburgh Napier University, Macmillan, Teenage Cancer Trust and Sitekit.

Scottish Funding Council

The Scottish Funding Council (SFC) is helping to make Scotland the best place in the world to educate, to research and to innovate. Investing around £1.5 billion of public money each year, SFC’s funding enables Scotland’s colleges and universities to provide life-changing opportunities for over half a million people. Its

support for university research means every one of Scotland's 19 universities is able to carry out world-leading research. www.sfc.ac.uk

The Data Lab:

The Data Lab is an innovation centre focused on helping Scottish industry to capitalise on a growing market opportunity in data science. Established with an £11.3 million grant from the Scottish Funding Council, The Data Lab enables industry, public sector and world-class university researchers to innovate and develop new data science capabilities in a collaborative environment. Its core mission is to generate significant economic, social and scientific value from data for Scotland.

www.thedatalab.com

www.datafest.global