Joint NewMind - NeuroD Proposal Development Workshop

Date: **Thursday 18th May 2017**

Time: **10:00 – 15:00 (lunch & refreshments included)**

Venue: **Kanaris Lecture Theatre (no. 44 on the map), Manchester Museum, Oxford Road, M13 9PL**

The purpose of the workshop is to provide an additional opportunity for previously developed, but as yet either un-submitted or non-awarded proposals to benefit from the involvement of network members bringing new skills and approaches.

10:00	Registration (inc. Tea & Coffee)	
10:30	Welcome & Introduction	Dan Morley (Network Co-Ordinator, NewMind) & Simon Harper (NeuroD, UoM)
10:35	NewMind Funding – background & process (inc. EPS Research Challenge focus)	Dan Morley & Patrick Gaydecki (NewMind Lead for Sensing Systems, UoM)
10:45	Lightning Presentations	Proposal Leads
11:00	Working up proposals: World Café discussion	All
12:00	Lunch	
12:30	Application Sprint: developing proposals **(please ensure you can access Googledocs)**	All
14:30	Break	
14:45	Brokering additional skills	Dan Morley
15:00	Next steps & Close	

Please see below for details of project proposals submitted for this workshop.

The session is open to all with an interest in developing technologies for helping diagnose, alleviate and treat mental health conditions, and exploring the associated underlying Engineering & Physical Sciences Research challenges.

If you have attended a NewMind or NeuroD workshop in the past and helped to develop a proposal, and wish to discuss with other potential participants you can submit details to daniel.morley@manchester.ac.uk for inclusion on the day.

If you have yet to submit a proposal or be involved in the development of a submission, you are also welcome to attend and see where your skills and expertise might benefit prospective submissions.

Submitted ideas for discussion & development

Lead: Dr Stuart W. Flint, Leeds Beckett University

Title: The reminiscent log book: promoting memory retention, creating new memories and learning, and improved quality of life and sense of self

Abstract: Due to the increased reports of mental health concerns such as dementia in older people, there have been calls for intervention that aims to reduce the decline in cognitive functioning, whilst offering opportunities to improve quality of life. Within the Blackfriars Consensus Statement (2016), Public Health England and UK Health Forum have called for a national focus on reducing dementia. This stance is supported by NICE who recognise the importance of health behaviours to reduce the risk or delay the onset of disability, dementia and frailty in older adults. Research evidence has identified the impact of reminiscence in older people, where integrated reminiscence can reduce depressive symptoms, loneliness and inactivity, whilst improving self-esteem, life satisfaction and well-being (e.g., Elias et al., 2015; McDonald et al, 2016; Meléndez Moral et al, 2015). This research project will examine the impact of a reminiscence based log book on memory retention, creating new memories, and improved quality of life and sense of self. By using existing technology and thus fair access and support, this product will allow users to reminisce and connect with family members and significant others. The project aims to: 1) allow personalised feedback, influencing mood whilst offering opportunities to recall events and past experiences; 2) offer opportunities to build a bank of information contributed to by themselves, significant others, and organisations (e.g., British Museum); and 3) reduce isolation via daily connection with significant others.

Name: Dr Eiman Kanjo, Nottingham Trent University

Title: Objective Physiological and Behavioural Measures for Identifying and Modelling Episodes of Decline in Depressed Patients

Abstract: Depression and mood disorders rank among the top health problems worldwide, with an estimated cost to the UK of ~£16 billion a year. Despite the magnitude of this problem, there are currently no objective measures based on physiology or behaviour that can be used for detecting episodes of decline. Studies have shown that both the sympathetic and parasympathetic responses involved with emotional behaviour differ in individuals diagnosed with depression, suggesting that it may be possible to identify a depression signature of sympathetic and parasympathetic tone that can be measured through various physiological cues. This project will focus on how physiological responses may serve as a “window” to depression and other mood disorders in order to support the development of a new therapeutic tool that can sense and model behaviour and deliver multimodal feedback (including tactile, vibrations and haptic, light, and sound). This project features two key

strands of work: (1) the development of completely new datasets and models that explore the correlation of physiological and behavioural changes with depression and mood state; and (2) exploration of novel and innovative interventions. Our data and modelling strand will combine short-term monitoring of clinical and non-clinical populations in a controlled lab setting with longer-term, continuous monitoring of clinical patients undergoing treatment. The interventions strand will explicitly target the emergence of co-designed prototypes that go beyond current mobile therapies (which are typically limited to mobile screen) in order to provide real-time multimodal feedback. Our co-design will draw expertise from service users and other stakeholders.

Name: Dr Patricia Scully, University of Manchester

Title: Integrating Imaging, Mobility & Biomarkers for stratifying early stage dementia

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Name: Dr Jian Zhou, Manchester Metropolitan University

Title: Advanced wearable technology for early detection & self-awareness of mental health problem

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TBC

Name: Dr Roisin McNaney, Lancaster University

Title: Regaining Control through IoT (ReCon-IoT): Envisioning Internet of Things based solutions to support day planning for people experiencing mental health concerns

Abstract: The use of paper-based tools to support people experiencing mental health concerns (including those with neurological issues) to plan their day is a standard method for helping them to regain a sense of control over their lives. However, it is well known that paper-based tools such as these are often lost, forgotten or onerous to complete, meaning that, particularly for people lacking in motivation due to their condition state, they are not always successful. Often, caregivers are responsible for day planning; ensuring the person is, for example, attending appointments, taking exercise or engaging in social activities. However, this transferral of responsibility to the caregiver can not only seen as a burden for them personally, but also cause mental health symptoms to worsen for the individual, as they distance themselves even further from day to day activities of life.
