# **NIHR** Brain Injury MedTech Co-operative

Newsletter, Issue 7, October 2019

# **Patient Inspired Innovation**

#### Welcome to issue 7 of the NIHR Brain Injury MedTech Co-operative newsletter.

In this edition, find out more about a new NIHR Campaign, our Cognition and Mental Health Theme Lead, and the Norwich Science Festival starting shortly.

### About us

The MIC is one of eleven national Medtech and In vitro diagnostic Cooperatives (MICs) funded by the National Institute for Health Research (NIHR).



The MIC works with patients, carers, academics, clinicians and industry to develop new medical devices, healthcare technologies and technology-dependent interventions to improve treatment and quality of life for patients with brain injuries.

### Get Involved!

The MIC has developed a volunteer register for patients, carers and whoever has an interest in the advancement of healthcare technologies. For more information on the Register for Healthcare Involvement and Technology Evaluation (RHITE), please visit our website:

http://www.brainmic.nihr.ac.uk/rhite

### Important:

To unsubscribe from RHITE and thisnewsletter please send an email to: involve@brainmic.org

# How we can help you find Your Path in Research? The NIHR campaign for Health & Care Professional

To support improved patient outcomes there is a need for health and care professionals to become more involved in research and expand their knowledge. The NIHR has announced the start of an exciting new campaign, Your Path in Research, which coincides with the birthday of James Lind. The campaign aims to inspire health care professionals to get more involved in research.

James Lind is famous for conducting the first ever clinical trial while serving as a surgeon. His experiment on board the HMS Salisbury in 1747 showed that oranges and lemons were a cure for scurvy.



If you are a HCP not currently involved in research:

- Find out about relevant findings for your work/specialty through NIHR signals;
- Tell NIHR where research is required by suggesting a research question;
- Find out what research is happening in your trust and how you can get involved;
- Make patients aware they could participate in a trial or study.

# If you are a HCP already involved (at an early stage) in research and looking to progress your career:

• Develop your knowledge of clinical research by registering for the NIHR's free course (Massive Open Online Course). For the latest registration details go to: FutureLearn: Improving Healthcare through Clinical Research;

- Explore how the Integrated Clinical Academic (ICA) Programme can provide a clinical academic career and advice on seeking out the most appropriate awards and timetable for grant applications;
- Apply for awards within the Integrated Academic Training (IAT) Programme for doctors and dentists to have a career in research alongside clinical training;
- Engage with your professional body to explore the research and support opportunities available for those pursuing clinical academic careers.

To find out more click this link: <u>https://www.nihr.ac.uk/news/how-we-can-help-you-find-your-path-</u> <u>in-research/22417</u>

The NIHR Brain Injury MedTech Co-operative is delivered in partnership between Cambridge University Hospitals NHS Foundation Trust and University of Cambridge

### The Brain Injury MIC presents its Theme Leads:

## Prof Barbara Sahakian, Brain MIC Cognition and Mental Health Theme Leader

The work of the NIHR Brain Injury MIC is divided into eleven themes led by internationally renowned experts in their respective field. This month we are delighted to introduce to you our Cognition and Mental Health Lead: Professor Barbara Sahakian.



Professor Sahakain has had a long and distinguished career as Professor of Clinical Neuropsychology at the University of Cambridge Department of Psychiatry and Behavioural and Clinical Neuroscience Institute. She is also an Honorary Clinical Psychologist at Addenbrooke's Hospital and a Fellow of Clare Hall, Cambridge. She is a Fellow of the British Academy and the Academy of Medical Sciences and a Member of the International Expert Jury for the 2017 Else Kröner-Fresenius-Stiftung Prize. She is a Past President of the British Association for Psychopharmacology and of the International Neuroethics Society.

Professor Sahakian has an international reputation in the fields of psychopharmacology, neuropsychology, neuropsychiatry, neuroimaging and neuroethics. She is best known for her work on problems of cognition and motivation in brain injury, 'hot' and 'cold' cognitive deficits in depression and early detection and early treatment with cholinesterase inhibitors in Alzheimer's disease. She has over 450 publications in scientific journals.

Professor Sahakian co-invented the neuropsychological CANTAB and EMOTICOM tests (www. cambridgecognition.com) and the University of Cambridge/PEAK Advanced Training Programme and the Wizard Apprentice Memory Game (www.peak.net).

Professor Sahakian has contributed to Neuroscience and Mental Health Policy, including the UK Government Foresight Project on Mental Capital and Wellbeing (Beddington et al., 2008, Nature), the Strategy for Mental Health for the Medical Research Council (Sahakian et al., 2010, The Lancet) and the Grand Challenges in Global Mental Health (Collins et al., 2011, Nature). She is on the Committee for the Strategy for Neuroscience and Mental Health for the Department of Health.

### DECODER & WIZARD: Brain Training Apps for improving Concentration and Memory

Professor Sahakian and her team at the Behavioural and Clinical Neuroscience Institute at University of Cambridge have developed two games aimed at helping users improve their attention and concentration.

The first is a memory game called Wizard. Research shows that playing the game improves memory.

Thesecondis Decoder, agamedesigned to improve attention. In a study published in Frontiers of Behavioural Neuroscience Professor Sahakian shows that users who play Decoder significantly improve their attention in standardised tests when compared to control groups.





...and an event with Wizard and Decoder! The Brain MIC at the European Researchers Night in Cambridge!







September 2019, the Brain Injury MIC joined the European Researchers' Night with Professor Sahakian's laboratory researchers presenting Decoder and Wizard to the wider public.

The MIC wants to thank all the visitors who came to the stand and attended the event that was a great success!

Adults and children enjoyed playing the games and challenge their memory and ability to stay focused. Stay tuned for the next event!

# ...to continue with an International Conference! **The Brain MIC at the Eleventh Meeting of Hydrocephalus Society**



September 2019 in Vancouver (Canada), the Brain MIC Honorary Director, Professor (Emeritus) John Pickard was a speaker at "Hydrocephalus 2019", an annual conference organised by The International Society for Hydrocephalus and Cerebrospinal Fluid Disorders.



This annual meeting brings together individuals with a wide variety of backgrounds, including clinicians, health care professionals, basic scientists,

patient advocates and volunteers who all share common interests and goals: who all share common interests anf goals:

- 1) To better understand the normal physiology of cerebrovascular fluid and intracranial pressure;
- 2) To improve the diagnosis and treatment of hydrocephalus and other cerebro-spinal fluid disorders;
- 3) To ultimately lead to an improvement in the quality of life of patients, their families and caregivers.



Professor Pickard gave a talk about the importance and continuing relevance of the UK Shunt Registry that he created in the 1990's for hydrocephalus and other disorders of the circulation of cerebrospinal fluid in response to concerns over unexpected deaths, and high rates of infection and revision.

Using data collected by the UK shunt registry Dr Rocío Fernandez Mendez presented key findings about the effectiveness and safety of shunt surgery in the UK. Dr Fernandez Mendez works as Research Associate at the University of Cambridge, and collaborates with the Brain Injury MIC under the Intracranial Dynamics and Shunt Technology Theme. The UK Shunt Registry is hosted on the ORION platform, which hosts several other clinical registries, including RHITE (The Registry of Healthcare Information and Technology Evaluation).

### **Norwich Science Festival is coming back!**

Norwich Science Festival returns for October half-term with nine days of inspirational exhibitions, sensational shows and an abundance of hands-on science activities for all ages and all levels of knowledge. For more info, visit the website: https://norwichsciencefestival.co.uk/



Dr Stephanie Rossitt, who was recently awarded by the MIC through the Seedcorn Funding Award for the study "BISP (Brain Injury Sensory Prosthetic) - Investigating usability of a wearable augmented reality object recognition device for brain injury survivors with vision loss", will give a talk about "Rewiring the Brain after Injury". Don't miss it out!

More info at https://norwichsciencefestival.co.uk/events/health-wellbeing-day-gallery-stage/

### NIHR Brain Injury MedTech Co-operative

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