

# NEWSLETTER

**Edition 8**

**January 2020**

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Welcome to the latest issue our quarterly newsletters. We are one of 11 national MICs funded by the National Institute for Health Research. Based in Leeds, we are a national network of clinicians, scientists, industry, patients and public working together to advance the care of patients with Colorectal, Vascular & HPB diseases. For more information on what we do, please contact [surgicalmic@leeds.ac.uk](mailto:surgicalmic@leeds.ac.uk)

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## **BDRF 2019 Travelling Research Awards**

Mr Aaron Quyn, Consultant Colorectal Surgeon has been awarded the BDRF 2019 Travelling Research Fellowship Grant.

Aaron's project is the AURORA trial which will investigate a novel theranostic nanoparticle to increase specificity of nodal, stage and as a radiosensitising agent in rectal cancer to improve response rates in a greater number of patients.

Aaron will use the grant to visit the University of Lyon and also the University of Bordeaux whilst also meeting the inventors of the technology used in the trial.



## **Painless colorectal cancer screening with robotic assistance: innovation prize for research team**

For the first time, the KUKA Innovation Award focused on healthcare and medicine. The winners of the innovation competition have now been chosen. Their goal: to save lives.

The MEDICA medical technology trade fair in Düsseldorf is very busy. Only the KUKA booth attracted a great deal of attention, with all eyes focused on the cover that Dr. Rainer Bischoff, Vice President KUKA Corporate Research is currently opening.



## The MTF goes to SRS Conference at the RCSI in Dublin.

Three teams from the national MTF group have been selected to pitch their innovations to a panel of experts at this prestigious event. They will be pitching to win £3K funding from the Surgical MIC for their innovation and the winning team will be supported in taking their idea forward. The teams of students from medical, engineering and affiliated specialties are addressing a range of unmet needs from neurosurgery to liver transplant. Many of these students have been through the MTF's flagship Innovation Programme, designed to give them the skills and knowledge to innovate effectively in healthcare. To find out more please follow them on social media or visit our webpage:



Web: <https://surgicalmic.nihr.ac.uk/medtechfoundation/>  
Facebook: <https://www.facebook.com/MedTechFoundation/>  
Twitter: @MIC\_Foundation

## Congratulations to new NIHR CRN Lead



Jim Tiernan is a Consultant Colorectal Surgeon in Leeds and is the new NIHR CRN Specialty Lead for Surgery for Yorkshire and Humber. He completed his clinical and research training in the region and as a result has a wide network of contacts across Yorkshire that will enable him to develop the CRN over the coming few years. The Surgical MIC will be a key component of this strategy: commercial are a high-level priority for the CRN and the MIC provides a unique opportunity to deliver this locally. Jim aims to run a region-wide engagement event later in the year to bring together all stakeholders to help identify how to build on the great work of the CRN.

## EPSRC Award

Dr Kevin Critchley, School of Physics and Astronomy has been awarded an EPSRC grant to look at the Future of Nanoparticles in Colorectal Cancer.

His aim is to develop a deep understanding of the molecular basis that underpins the clinical treatment of cancer with a focus on understanding colorectal cancer (CRC); this will include the screening, diagnosis, treatments, biomedical research, and early stage clinical trials. With a focus to learn about the state of the art, the challenges, and the areas that require priority research.





## IntAct Trial

The IntAct trial has recently opened in Italy! IntAct is a pan-European trial looking at the use of intraoperative fluorescence to reduce anastomotic leaks in rectal cancer surgery.

880 participants will be randomised prior to surgery, on a 1:1 basis, to either surgery with IFA or surgery without IFA using minimisation (incorporating a random element) and stratified by surgeon, gender, ASA grade, T-stage, neo-adjuvant therapy and tumour position.

Participants will receive an anterior resection either with or without IFA (intraoperative fluorescence angiography) depending on their randomised allocation. ISRCTN13334746

## Surgical MIC Proof of Concept and Incubator Package Funding

We are working in collaboration with Grow MedTech a new Research England funded programme to support medical technology innovation and development. Our funding competitions are split into two categories: a strategic call focussing on future unmet needs and a more reactive call focussing on the immediate needs in surgery.

### **2019 Grant Recipients**

**Ms Louise Hitchman** from Hull University Teaching Hospital NHS Trust and co-investigators Professor Matthew Hardman, Chair in Wound Healing, Hull York Medical School, Mr George Smith Senior Lecturer in Vascular Surgery, Hull University Teaching Hospital NHS Trust; received funding for their proposal, "*Extracorporeal Shockwave Therapy for the treatment of Diabetic Foot Wounds; pilot mechanistic evaluation*".

**Dr Joseph Norton & Prof. Pietro Valdastrì** (Co-PI) from STORM Lab UK, School of Electronic and Electrical Engineering, University of Leeds and co-investigators Dr James McLaughlan (University Academic Fellow (joint Faculty of Engineering and Medicine & Health). School of Electronic and Electrical Engineering, University of Leeds) and Dr Damian Downey (Clinical Senior Lecturer and Co-director of the European Cystic Fibrosis Clinical Trials Network. Queen's University Belfast, Belfast, Northern Ireland), Dr Keith Obstein (Associate Professor of Medicine and Mechanical Engineering, Division of Gastroenterology, Vanderbilt University, Nashville, Tennessee USA); received funding for their proposal, "*An innovation in same-day bowel cleaning and blockage removal*".

**Dr Stefan Williams** from the Leeds Teaching Hospitals NHS Trust and co-investigators Dr Hui Fang and Dr Andrew Lewington; received funding for their proposal, "*Computer vision to automatically monitor urine output*".

**Dr Gordon Moran** Clinical Associate Professor of Gastroenterology at NIHR Nottingham Biomedical Research Centre and co-investigators Professor Gowland, Professor of Physics at University of Nottingham; Professor Taylor, Professor of Medical Imaging at University College London; and Dr Mukherjee, Clinical Associate Professor of Histopathology at Queen's Medical centre Campus, University Of Nottingham; received funding for their proposal, "*Towards Precision Medicine: a MagnEtic Resonance Imaging-based measure of fibrosis in enTeric Crohn's disease. The MERIT pilot study*".

## **Artificial Intelligence Health & Care Award**

The Artificial Intelligence Health and Care Award supports solutions addressing the strategic aims of the NHS Long Term Plan across the whole development pathway, from initial feasibility to clinical implementation.

The Artificial Intelligence (AI) Health and Care Award is run in partnership with the **Accelerated Access Collaborative** and **NHSX**. It is part of the **NHS Artificial Intelligence Lab** announced by the Health Secretary in 2019, and will deploy £140m over three years to accelerate the testing and evaluation of the most promising AI technologies that meet the strategic aims set out in the **NHS Long Term Plan**.

### **Funding collaboration**

Innovator Awards

***Closing Date - No time limits***

Pancreatic Cancer Scotland – Pump Priming Research Grants

***Closing Date – no time limits***

Healthcare Technologies: Call for Investigator-led Research Projects

***Closing Date - No deadline***

UK-Israel open collaborative R&D competition 2019

***Closing Date - 19 February 2020***

Surgical Robot Challenge

***Closing Date – 16 March 2020***

19/122 A cross sectional study and modelled evaluation of the performance of bowel cancer screening in England

***Closing Date – 01 April 2020***

Accelerating the uptake of computer simulations for testing medicines and medical devices

***Closing Date - 22 April 2020***

SC1-DTH-02-2020: Personalised early risk prediction, prevention and intervention based on Artificial Intelligence and Big Data technologies

***Closing Date – 22 April 2020***

Disruptive Technologies Innovation Fund

***Closing Date – 18 September 2020***

Grow MedTech - Proof of Market

***Closing Date 31<sup>st</sup> December 2022***

Talk to us if you would like academic or clinical input, patient and public involvement or some support with project coordination and management. Please allow sufficient time for this.

# Upcoming Events / Conferences

## **MedTech North – Together Towards Tomorrow**

- Ramside Hall Hotel, Carville, 23<sup>rd</sup> February 2020

## **Recent developments in AI and digital health 2020**

- RSM London, 24<sup>th</sup> February 2020

## **British Transplant Society Congress**

- ICC Belfast 6<sup>th</sup> March 2020

## **Society of Academic & Research Surgical Research (SARS)**

- Royal College of Surgeons in Ireland, Dublin 20<sup>th</sup> March 2020

## **RCS/ACPGBI Surgical Research Sandpit**

- Foresight Centre, Liverpool 20<sup>th</sup> March 2020

## **SEHTA's 1st International MedTech Expo & Conference**

- Hilton, London Tower Bridge 26<sup>th</sup> March 2020

## **Advanced Regulatory Affairs for Medical Devices**

- Cavendish Hotel, London, 26<sup>th</sup> - Friday 27<sup>th</sup> March 2020

## **MedTech Innovation Expo 2020**

- National Exhibition Centre (NEC), Birmingham 1<sup>st</sup> - 2<sup>nd</sup> April 2020

## **HPB Unmet Needs Workshop**

- Cloth Hall Court, Leeds 3<sup>rd</sup> April 2020

## **Wounds Research Network 2020 Scientific Meeting**

- ExCel, London 13<sup>th</sup> May 2020

## **An Introduction to the Medical Device Regulation**

- Rembrandt Hotel, London, 13<sup>th</sup> - 15<sup>th</sup> May 2020

## **Child Health Technology Conference**

- Cutlers Hall Sheffield 20-21 May 2020

## **An Introduction to the Design and Development of Medical Devices**

- Rembrandt Hotel, London, 27<sup>th</sup> - 28<sup>th</sup> May 2020

## **IDEAL Conference 2020**

- Amsterdam 11<sup>th</sup>-12<sup>th</sup> June 2020

## Core team

Clinical Director: Professor David Jayne

Colorectal Theme Lead, Mr Aaron Quyn

Vascular Theme Led: Professor Julian Scott

Hepatobiliary Theme Lead: Professor Giles Toogood

Scientific Director/ Nanotechnology Theme Lead: Professor Steve Evans

Robotics Lead: Professor Pietro Valdastri

Engineering Lead: Dr Peter Culmer

Biosensing Lead: Professor Paul Millner

Programme Manager: Vee Mapunde

Project Manager: Anita Blakeston

Project Manager: Sheila Boyes

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