

NEWSLETTER

October 2019

Edition 7

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

Using stem cells to reduce complications after bowel cancer surgery

Bowel Cancer UK/RCS Research Fellow, Mr Joshua Burke, is looking at ways to reduce a serious complication of bowel cancer surgery.

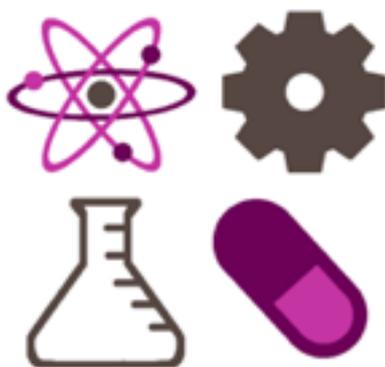
He hopes a special type of stem cell will help improve healing after surgery and reduce the chance of a complication known as 'anastomotic leak'.

This research addresses a major surgical complication. Finding ways to reduce anastomotic leaks could significantly reduce long term side effects for patients following surgery, reduce costs and ultimately help save lives.



The role of medical technology in surgical innovation

In 2017, The Royal College of Surgeons of England (RCS) launched the Commission on the Future of Surgery. The Commission sought to collate evidence from a broad range of key stakeholders on current technology use and its future trajectory in the delivery of surgical care and surgical training across the UK. Its findings predicted how medical technology (medtech) would affect surgical care and training, and described an exciting future where technologies such as artificial intelligence, robotics, immersive technologies and three-dimensional (3D) printing routinely improve outcomes for patients.¹



**When the gifted hands make a mistake –
Surgical errors and the urgent need to invest
in patient safety.**

Yeshwanth Pulijala
CEO, Scalpel Ltd

I love surgery. I always have. Growing up, I always wanted to be a surgeon. I am not sure if it was the movies or the society that influenced me the most but doctors were treated special, and surgeons especially were treated like superheroes. Two years back we started [Scalpel Ltd](#) to improve patient safety in surgery. Since then our team spent every minute on building tools that reduce the chance of preventable errors in surgery. Along the way, we have learned a lot about why things go wrong in surgery, why the current solutions don't work, and how can we fix it. This post shares some of those lessons.



Vascular Research Priority Setting Partnership

Vascular disease is the collective term for disease of the veins and arteries. Every part of the body to which blood flows can be affected by it.

Research is needed to inform about prevention, to develop new techniques for early diagnosis and to develop new and more effective treatments.

Hull York Medical School have formed The Vascular James Lind Alliance Priority Setting Partnership (PSP) to identify unanswered questions about the prevention, diagnosis and treatment of vascular conditions from the perspective of patients, carers and vascular health professionals.

This PSP will help funders to provide resource to the areas of research that need it most – and ultimately make a difference to people's lives.

[Complete the Survey](#)



**Health Economics: What is it? What's needed?
How can we help**

Dr Vargas-Palacios gave a presentation at NHS Expo 2019 pre-event workshop held at Alderley Park, Cheshire the aim of the presentation was to discuss what is Health economics and what it can offer to MedTech companies looking to develop their products for the NHS. at the MedTech Opportunities Workshop on the 3rd of September.



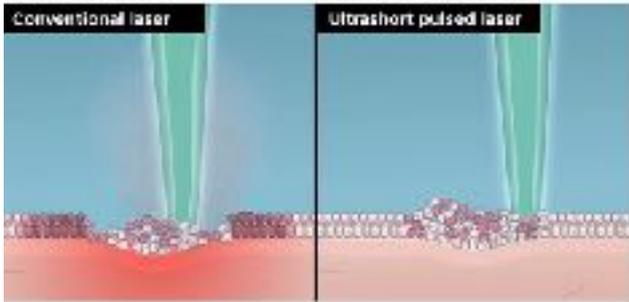
Ultrashort pulsed laser process that allows minimally invasive surgical procedures for colorectal cancer

Heriot-Watt University along with University of Leeds have demonstrated a laser process that can be deployed using optical fibres that are ideally suited for endoscopic surgery – which could be used for improved treatment of bowel cancer.

According to Cancer Research UK data, the second highest number of cancer deaths in the UK occurs due to bowel cancer.

The National Bowel Cancer Screening Programme is proving effective, with a 16 per cent survival benefit for screened individuals. Importantly, there has been a shift in the detection to earlier disease with screening colonoscopy picking up polyps in 40 per cent of cases and cancers in 10 per cent of cases.

View the video [here](#)



Spoke Sites - Liverpool

*Christopher M Halloran, Professor of Pancreatic Surgery
Institute of Translational Medicine
Department of Clinical Cancer Medicine,
University of Liverpool*

I am looking forward to working with colleagues from the MIC on projects related to early detection of pancreatic cancer and nanoparticles used for diagnosis of pancreatic cancer. We have now had 2 meetings and are looking forward to an in-depth session early next year: i) All too often we look at cross sectional images of pancreatic cancer in the MDT where on reflection there was a lesion seen but not picked up on prior images, sometimes months or years in the past. I plan to develop a collaboration and trial with **Imedis Medical** who have developed a proprietary platform that uses a series of deep learning algorithms to analyse medical images and medical free text, surfacing unreported findings detected in images without impacting on throughput.

ii) We have developed a specific super-paramagnetic iron oxide nanoparticles (SPION's) that can select and target tumours. It is hoped that the collaboration with the MIC can further developments of in-situ diagnosis using this technology.

Find how more about becoming a spoke site [here](#)



Funding collaboration

Innovator Awards

No time limits

Pancreatic Cancer Scotland – Pump Priming Research Grants

Closing date – no time limits

EME Programme Precision Medicine

Closing date 6th November 2019

DT-TDS-05-2020: AI for Health Imaging

Closing Date 13th November 2019

Surgical MIC National Meeting

Cloth Hall Court Leeds 19th November 2019

Ablative and Non-invasive therapies for hepatocellular carcinoma

Closing Date 4th December 2019

Surgical MIC Incubator Packages for 2019/20

Applications to be reviewed on

5th December 2019

Grow MedTech - Proof of Market

Closing Date 31st December 2022

Pain Relief strategies for dressing change in chronic wounds

Closing Date 22nd January 2020

ASGBI Best New Surgical Innovation Award

Closing date 31st January 2020

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

[Digital Health UK: The Future of Healthcare, Digital, Data and Technology](#)
Manchester Conference Centre 24th October 2019

[Incontinence: The Engineering Challenge Conference](#)
Institution of Mechanical Engineer, London 13-14th November 2019

[Super Connect London \(AI, MedTech\)](#)
The Microsoft Reactor London 14th November 2019

[Surgical MIC National Meeting](#)
Cloth Hall Court, Leeds 19th November 2019

[Grow MedTech Annual Conference](#)
Cloth Hall Court, Leeds 6th December 2019

[PDT @ LEEDS, 6th International Conference](#)
Cloth Hall Court, Leeds 9th December 2019

[RCS/ACPGBI Surgical Research Sandpit](#)
Foresight Centre, Liverpool 20th March 2020

[SEHTA's 1st International MedTech Expo & Conference](#)
Hilton, London Tower Bridge 26th March 2020

SAVE the DATE

We are hosting an HPB unmet needs workshop in Leeds on
6th March 2020

Core team

Clinical Director: Professor David Jayne

Deputy Director: 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 Valdastrì

Engineering Lead: Dr Peter Culmer

Biosensing Lead: Professor Paul Millner

Programme Manager: Vee Mapunde

Project Manager: Anita Blakeston

Project Manager: Sheila Boyes

<http://surgicalmic.nihr.ac.uk/>

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