

Clinical Surgery

Issue V: June 2016

Foreword from the Research Manager

Welcome to the summer 2016 edition of the research eBulletin for Clinical Surgery.

Welcome to the June edition of the Department of Clinical Surgery eBulletin

In This Issue:

Research In Progress Meeting

PURE Publication Repository

Congratulations & Recent Grant Awards

Clinical Surgery Audit meetings

Clinical Trials Update

Visiting Lecturer

New Data Manager

Outgoing Fellows

Recent Publications

Conference Submission Deadlines



Mr Richard Skipworth is a consultant upper GI surgeon and honorary clinical senior lecturer with an interest in oesophagogastric cancer.

Earlier this year, Richard was awarded an NHS Research Scotland Clinician post for a research programme entitled "*Improving clinical outcomes for patients with oesophagogastric cancer*". Over the next 3 years, this programme will involve two complementary research streams. The first stream is translational in nature and involves tissue collection (including muscle, fat, tumour, blood and urine) from patients undergoing surgery with curative intent. This stream is targeted at the investigation of both cancer cachexia, and the genetics of oesophageal cancer. Richard has a longstanding research interest in cancer cachexia, and in particular, the identification of novel biomarkers for diagnosis and the assessment of therapeutic response. Working closely with

Professors Ken Fearon and Jim Ross, much of their ongoing cachexia research is currently funded through collaboration with pharma (Novartis). The genetics component of the project is performed as part of the Oesophageal Cancer Clinical and Molecular Stratification (OCCAMS) Consortium.

His second research stream is clinical in orientation, and involves multicentre, randomised controlled trials (RCTs) of neoadjuvant, perioperative and operative interventions. Richard is currently involved in several clinical trials including PREVENTT, NeoAegis (both of which are currently recruiting; see page 3 of this edition of the newsletter for more details on these trials) and the forthcoming planned ROMIO trial.

Consultant Upper GI Surgeon and Honorary Clinical Senior Lecturer, **Mr Richard Skipworth**

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Recent publications:

Emergency laparoscopic mesh repair of parahiatal hernia.
Starkle, R.F., **Skipworth, R. J. E.**, Leibman, S. & Smith, G.S.
ANZ Journal of Surgery, 2016

Proteomic identification of potential cancer markers in human urine using subtractive analysis.
Husi, H., **Skipworth, R. J. E.**, Cronshaw, A., Fearon, K. C. H. & Ross, J. A.
International journal of oncology, 48(5):1921-32, 2016

Whole-genome sequencing provides new insights into the clonal architecture of Barrett's esophagus and esophageal adenocarcinoma.
Ross-Innes CS, Becq J, Warren A, Cheetham RK, Northen H, O'Donovan M, Malhotra S, di Pietro M, Ivakhno S, He M, Weaver JM, Lynch AG, Kingsbury Z, Ross M, Humphray S, Bentley D, Fitzgerald RC; Oesophageal Cancer Clinical and

Molecular Stratification (OCCAMS) Study Group; Oesophageal Cancer Clinical and Molecular Stratification OCCAMS Study Group.
Nat Genet. 47(9):1038-46, 2015

Evaluating potential biomarkers of cachexia and survival in skeletal muscle of upper gastrointestinal cancer patients.
Stephens NA, **Skipworth RJ**, Gallagher IJ, Greig CA, Guttridge DC, Ross JA, Fearon KC.
J Cachexia Sarcopenia Muscle 6(1):53-61, 2015

Programmed cell death 6 interacting protein (PDCD6IP) and Rabenosyn-5 (ZFYVE20) are potential urinary biomarkers for upper gastrointestinal cancer.
Husi H, **Skipworth RJ**, Cronshaw A, Stephens NA, Wackerhage H, Greig C, Fearon KC, Ross JA.
Proteomics Clin Appl. 9(5-6):586-96, 2015

Congratulations & Recent Grant Awards

Chris Johnston has been awarded his PhD from the University of Edinburgh. Chris was also awarded the Ker Memorial Prize for the best PhD thesis in infectious diseases.

Jenna Langschmidt

Creating opportunities for students through the development of an anatomy bodypainting workbook

Principal's Teaching Award Scheme (PTAS)

2016: £1350

Mr John Casey, working with Islet Transplant Research Group and The Cell and Gene Therapy Catapult (CGT) have been instrumental in launching a new company called Islexa developing a novel technology to produce laboratory grown islets, the organoids responsible for insulin production.

Mr Damian Mole's UoE/GSK KMO team have won the Team Work in Innovation Award at the Royal Society of Chemistry Industry & Technology Awards 2016.

Sponsored by Johnson+Johnson, the award recognises outstanding teamwork promoting innovation through



industry-academia partnerships. Damian Mole, together with Chris Mowat (Department of Chemistry) and Scott Webster (Centre for Cardiovascular Science), recently collected the award on behalf of the team at a reception at the Royal Society of Chemistry in London.

Mr Ewen Harrison and the GlobalSurg had a strong presence at the Royal College of Surgeons in London where the recent Global Anaesthetic, Surgery & Obstetric



Collaboration (GASOC) and Global Surgical Frontiers conferences were held in April. Analysis of GlobalSurg 1 was awarded best presentation at GASOC

PURE Update

Have you had a manuscript accepted for publication recently?

We are now past the **April 1st 2016** deadline for compliance with the University of Edinburgh Open Access Policy.

From now all manuscripts must be deposited in the PURE publication repository within **3 months of acceptance** in order to qualify for the next Research Excellence Framework (REF).

What do you need to do?

Please send the finally accepted version of your manuscript and forward the acceptance email to:

Pure.ClinSurg@ed.ac.uk

The Clinical Surgery admin team, Susan Keggie, Ingrid O'Malley, and Research Manager, Katie Shaw, will deposit manuscripts in PURE on your behalf.

Thank you to everyone who has forwarded manuscripts so far

More information about PURE can be viewed at www.ed.ac.uk/governance-strategic-planning/research/pure

Clinical Trials Update

PREVENTT — Preoperative intravenous iron to treat anaemia in major surgery.

A randomised, double-blind controlled phase III study to compare the efficacy and safety of intravenous ferric carboxymaltose with placebo in patients with anaemia undergoing major open abdominal surgery.

NHS Lothian is **now open** as a trial site. This study is now recruiting patients (>18) undergoing elective major surgery with a screening haemoglobin of 90-120 g/L in women and 90-130 g/L in men. Patients will be randomised to receive either study infusion or placebo 10-42 days before planned surgery. Primary outcome is the rate of blood transfusion within 30 days of surgery.

For more information, please contact Edinburgh principle investigators, Mr Ewen Harrison and Mr Richard Skipworth or the local research nurse Mr Alsatair Lang (0131 242 9453).

Congratulations to the PREVENTT team for recruiting the 250th patient into the trial!

The NeoAegis Trial

A phase III, open-labelled RCT comparing the MAGIC neoadjuvant/adjuvant chemotherapy regimen with the CROSS neoadjuvant chemoradiation protocol in patients with cT2-3 N0-3 M0 adenocarcinoma of the oesophagus or junction. The primary objective is to evaluate 1, 2 and 3-year survival.

This trial is now recruiting. For more information contact Mr Richard Skipworth.

OCCAMS—Oesophageal Cancer Clinical and Molecular Stratification.

A Multicentre Study to Determine Predictive and Prognostic Biomarkers and Therapeutic Targets for Oesophageal and Junctional Adenocarcinoma including Whole Genome Sequencing

This study, part of the International Cancer Genome Consortium (ICGC2), has now been refunded by CRUK for next 5 years and is currently recruiting.

For more information please contact Mr Rob O’Neil or Mr Richard Skipworth

The Balanced Anaesthesia Study

**** Now OPEN for Recruitment****

An international multicentre RCT to assess whether ‘deep’ general anaesthesia is associated with altered perioperative outcome. Inclusion criteria include age above 60, ASA 3 or 4, and requiring a general anaesthetic of at least 2 hours duration.

Patients will be randomised into 1 of 2 groups, targeting ‘deep’ or ‘less deep’ anaesthesia – this is achieved by using BIS (modified EEG) monitoring and targeting a BIS level of 35 or 50. Primary outcome will be all-cause mortality at one year, and secondary outcomes will include various complications of surgery or anaesthesia

Recruitment is expected to commence in the next month. For more information contact the Edinburgh principle investigator, Dr Gary Morrison or local research nurse Alastair Lang (0131 242 9453)

Coming soon.....

The ROMIO Trial

A multicentre randomised controlled trial comparing minimally invasive versus open esophagectomy for esophageal cancer.

This trial is being run by the University of Bristol and it is anticipated that NHS Lothian will open as a trial site in the coming months.

For more information please contact Mr Richard Skipworth or Mr Peter Lamb

News Round Up

James IV Travelling Fellowship

Professor Caprice Greenberg



Morgridge Distinguished Chair in Health Services Research, Vice Chair of Research (Department of Surgery) and Director, Wisconsin Surgical Outcomes Research Program at the University of Wisconsin School of Medicine and Public Health

Dr Greenberg's research program is dedicated to improving the quality and safety of surgical care. She has two goals that guide her work: 1) to improve operative performance and patient safety; and 2) to decrease practice variation and engage patients and other stakeholders in promoting high quality surgical care for patients with cancer.

Dr Greenberg will visit the Department of Clinical Surgery on August 15 & 16th. If anyone would like to meet individually with Dr Greenberg please contact Susan Keggie on s.keggie@ed.ac.uk

Research in Progress Meeting

Thank you to all the Research Fellows who have presented their work to The Clinical Surgery Research meeting so far this year

Amanda Roebuck
Hari Nair
Kevin Gallagher
Rachel Forsythe

Please note there will be a break in the research meeting programme over the summer. Meetings will resume in the Autumn on the first Friday of the month, 3.30pm, OPD4

GlobalSurg Delivers Research & Audit Skills Training Course in Rwanda

In May **Ewen Harrison** and members of the GlobalSurg team travelled to Kigali, Rwanda to deliver a series of face-to-face workshops training local healthcare professionals in research and audit skills. Funded by the University of Edinburgh Global Innovation Fund, the courses are designed to build research infrastructure in low and middle income countries and foster long term relationships between the Universities of Edinburgh and Kigali



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Clinical Audit Update

The Department of Clinical Surgery has a rolling programme of audit studies co-ordinated by **Miss Anna Paisley** and undertaken by Foundation Year doctors during their time in the department.

At the start of their 4 months spent in Clinical Surgery, each FY doctor is assigned an audit project. Some of these are new projects whilst others are re-audits of previous studies following an intervention.

The next audit presentation session will be at **2pm on July 15 and 22 July, OPD 4.**

All welcome!

Please come along to support the FY presenters and learn about the results of the departmental audits.

NEW Data Manager

Riinu Ots



Riinu Ots has joined the department of Clinical Surgery in the newly created position of Data Manager.

Hailing from Estonia, Riinu has a BSc in Physics from the University of Tartu. She has recently submitted her PhD thesis titled “High resolution modelling of particulate matter air quality in the UK with a focus on carbonaceous

aerosol” at the School of Chemistry, Edinburgh University.

With a multi-discipline educational background already (now including/starting to include medicine!) she is very happy to be referred to as a “data scientist”. Her programming language of choice is R, but with experience with a range of other tools as well.

Out Going Research Fellows

Over the past year the Department of Clinical Surgery has hosted a number of research fellows who move back into clinical work.

Mr Hari Nair, ESSQ Fellow, will commence ST training in Glasgow in August

Dr Katie Mountain, Spire Murrayfield Fellow, returns to London to take up an Obstetrics and Gynaecology training programme.

Dr Amanda Roebuck, Spire Murrayfield Fellow, is the new General Surgical Fellow at Hairmyres General Hospital

Dr Jenna Langschmidt, Anatomy Fellow, will remain in Edinburgh and joins the core surgical training programme

Dr Paul Yang, Spire Murrayfield Fellow, moves to a Trust Registrar position at North Cumbria University Hospitals NHS Trust in Carlisle

Future Conference Submission **Deadlines**

Conference	Date	Location	Abstract Submission
<i>International Surgical Group (ISG)</i>	<i>11-15 Sept 2016</i>	<i>Edinburgh, UK</i>	<i>Registration open</i>
<i>Society for Academic and Research Surgery (SARS)</i>	<i>17-18 January 2017</i>	<i>Dublin, Ireland</i>	<i>July to September 2016</i>
<i>British Transplant Society (BTS)</i>	<i>1-3 March 2017</i>	<i>Harrogate, UK</i>	<i>TBC</i>
<i>European-African Hepato-Pancreato-Biliary Association</i>	<i>23-26 May 2017</i>	<i>Mainz, Germany</i>	<i>Aug 1 2016–Jan 31 2017</i>
<i>Asian-Pacific Hapato-Pancreato-Biliary Association</i>	<i>7-10 June 2017</i>	<i>Yokohama, Japan</i>	<i>TBC</i>

Recent Publications

Lima MJ, Muir KR, Docherty HM, McGowan NW, Forbes S, Heremans Y, Heimberg H, Casey J, Docherty K. **Generation of Functional Beta-Like Cells from Human Exocrine Pancreas.** Lima MJ, Muir KR, Docherty HM, McGowan NW, Forbes S, Heremans Y, Heimberg H, Casey J, Docherty K *PLoS One*, 31;11(5);2016

Li B, Cairns JA, Robb ML, Johnson RJ, Watson CJ, Forsythe JL, Oniscu GC, Ravanan R, Dudley C, Roderick P, Metcalfe W, Tomson CR, Bradley JA. **Predicting patient survival after deceased donor kidney transplantation using flexible parametric modelling.** *BMC Nephrol.*, 25;17(1):51; 2016

Stansfield T, Parker R, Masson N, Lewis D **The Endovascular Preprocedural Run Through and Brief: A Simple Intervention to Reduce Radiation Dose and Contrast Load in Endovascular Aneurysm Repair.** *Vasc Endovascular Surg*, 50(4):241-6; 2016

Robson AJ, Parks RW. **HPB fellowship training: consensus and convergence** *HPB*, 18(5):397-9; 2016

Wilson K, Auer M, Binnie M, Zheng X, Pham NT, Iredale JP, Webster SP, Mole DJ **Overexpression of human kynurenine-3-monooxygenase protects against 3-hydroxykynurenine-mediated apoptosis through bidirectional nonlinear feedback.** *Cell Death Dis.*, 14;7:e2197; 2016

Rollins KE, Tewari N, Ackner A, Awwad A, Madhusudan S, Macdonald IA, Fearon KC, Lobo DN. Reply, Letter to the Editor - **The impact of sarcopenia and myosteatosis on outcomes of unresectable pancreatic cancer or distal cholangiocarcinoma.** *Clin Nutr.*, 35(3):765-6;2016

Koea JB, Batiller J, Aguirre N, Shen J, Kocharian R, Bochicchio G, Garden OJ. **A multicentre, prospective, randomized, controlled trial comparing EVARREST™ fibrin sealant patch to standard of care in controlling bleeding following elective hepatectomy: anatomic versus non-anatomic resection.** *HPB*, 18(3):221-8; 2016

Malietzis G, Currie AC, Johns N, Fearon KC, Darzi A, Kennedy RH, Athanasiou T, Jenkins JT **Skeletal Muscle Changes After Elective Colorectal Cancer Resection: A Longitudinal Study.** *Ann Surg Oncol.* In press; 2016

Sutherland AI, Oniscu GC **Challenges and advances in optimizing liver allografts from donation after circulatory death donors.** *J Nat Sci Biol Med*, 7(1):10-5; 2016

Malietzis G, Currie AC, Athanasiou T, Johns N, Anyamene N, Glynne-Jones R, Kennedy RH, Fearon KC, Jenkins JT. **Influence of body composition profile on outcomes following colorectal cancer surgery** *Br J Surg.* 103(5):572-80; 2016

Husi H, Skipworth RJ, Cronshaw A, Fearon KC, Ross JA. **Proteomic identification of potential cancer markers in human urine using subtractive analysis.** *Int J Oncol.* 48(5):1921-32; 2016

GlobalSurg Collaborative . **Mortality of emergency abdominal surgery in high-, middle- and low-income countries.** *Br J Surg.*, 103(8):971-988; 2016

Qadan M, Garden OJ, Corvera CU, Visser BC. **Management of Postoperative Hepatic Failure.** *J Am Coll Surg*, 222(2):195-208 ; 2016



Recent Publications

Hughes MJ, Chong J, Harrison E, Wigmore S. **Short-term outcomes after liver resection for malignant and benign disease in the age of ERAS.** *HPB*, 18(2):177-82; 2016

Skouras C, Davis ZA, Sharkey J, Parks RW, Garden OJ, Murchison JT, Mole DJ **Lung ultrasonography as a direct measure of evolving respiratory dysfunction and disease severity in patients with acute pancreatitis.** *HPB*; 18(2):159-69, 2016

Thomas RA, Czopek A, Bellamy CO, McNally SJ, Kluth DC, Marson LP. **Hemin Preconditioning Upregulates Heme Oxygenase-1 in Deceased Donor Renal Transplant Recipients: A Randomized, Controlled, Phase IIB Trial.** *Transplantation*, 100(1):176-83; 2016

Sutherland AI, IJzermans JN, Forsythe JL, Dor FJ. **Kidney and liver transplantation in the elderly.** *Br J Surg*. 103(2); 2016

Johnston CJ, Smyth DJ, Dresser DW, Maizels RM. **TGF- β in tolerance, development and regulation of immunity.** *Cell Immunol.*, 299:14-22; 2016

Forsythe RO, Ozdemir BA, Chemla ES, Jones KG, Hinchliffe RJ. **Inter-observer reliability of three validated scoring systems in the assessment of diabetic foot ulcers.** Accepted for publication in the *International Journal of Lower Extremity Wounds*, In Press, 2016.

Xuhui Li, Ninghui Z, P. Zichu Yang. **One sided bypass for bilateral Moyamoya disease, a case report and review of the literatures.** *International Journal of Surgery Case Reports*, 22:15-18, 2016

Tong, A., Budde, K., Gill, J., Josephson, M. A., Marson, L., Pruett, T. L., Reese, P. P., Rosenbloom, D., Rostaing,

L., Warrens, A. N., Wong, G., Craig, J. C., Crowe, S., Harris, T., Hemmelgarn, B., Manns, B., Tugwell, P., Van Biesen, W., Wheeler, D. C., Winkelmayer, W. C., Evangelidis, N., Sautenet, B., Howell, M., Chapman, J. R.; on behalf of the SONG-Tx Investigators. **Standardized Outcomes in Nephrology-Transplantation: A Global Initiative to Develop a Core Outcome Set for Trials in Kidney Transplantation.** *Transplantation Direct*, 2(6): 2016

