

Clinical Surgery

Issue VIII: March 2017

Mr Gabriel Oniscu is a consultant transplant surgeon (liver, kidney, pancreas) and honorary senior clinical lecturer. He leads the living donor kidney transplantation service and the development of novel perfusion technologies.

Welcome to the
Spring 2017 edition
of the Department
of Clinical Surgery
eBulletin

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Gabi has an active research interest with particular focus on transplant outcomes, organ perfusion, reconditioning and optical sensing. He is a lead investigator in the NIHR funded Access to Transplantation and Transplant Outcome



Mr Gabi Oniscu

Measures (ATTOM) programme grant (£2.2M), exploring access to the kidney transplant waiting list, transplant outcomes and PROMS.

Gabi is currently supervising a Research Fellow, **Diana Wu**, who is undertaking a detailed analysis of which patient factors influence wait listing for kidney transplantation and transplant outcomes as her PhD thesis. This study will provide evidenced-based assessment

criteria and will result in a new national organ allocation scheme which will maximise clinical outcomes and quality of life for patients after transplantation whilst ensuring the best use of all available organs.

Gabi has received an NRS Career Research Fellowship for the development of novel perfusion and preservation technologies which aim to improve the quality and assessment of organs prior to transplantation. The group are currently working to develop a portable oxygen generating device to be used with perfusion devices (MRC Confidence in Concept funded). Gabi has established collaborations with the Roslin Institute, the OPTIMA platform and Forbes Research group at SCRIM and developed a large animal model to explore mechanistic work of normothermic perfusion, the role of imaging in organ assessment and the role of perfusion in cell therapy and organ modulation.

Recent Publications

Oniscu GC. From 'one for all to all for one': a conceptual shift in organ perfusion and preservation. **Curr Opin Organ Transplant**. 2017 [Epub ahead of print].

Wu DA, Watson CJ, Bradley JA, Johnson RJ, Forsythe JL, Oniscu GC. *Global trends and challenges in deceased donor kidney allocation*. **Kidney Int**. 2017. [Epub ahead of print]

Tsui SS, Oniscu GC. *Extending normothermic regional perfusion to the thorax in donors after circulatory death*. **Curr Opin Organ Transplant**. 2017 [Epub ahead of print]

Maggiore U, Budde K, Heemann U, Hilbrands L, Oberbauer R, Oniscu GC, et al; ERA-EDTA DESCARTES working group. *Long-term risks of kidney living donation: review and position paper by the ERA-EDTA DESCARTES working group*. **Nephrol Dial Transplant**. 2017 Feb 1;32(2):216-223.

Wigmore SJ, Oniscu GC. *Sidestream dark field videomicroscopy for evaluating liver microcirculation in vivo*. **Liver Transpl**. 2017 Apr;23(4):425-426.

Gibbons A, Cinnirella M, Bayfield J, Wu D, Draper H, Johnson RJ, Tomson CR, Forsythe JL, Metcalfe W, Fogarty D, Roderick P, Ravanan R, Oniscu GC, Watson CJ, Bradley JA, Bradley C. *Patient preferences, knowledge and beliefs about kidney allocation: qualitative findings from the UK-wide ATTOM programme*. **BMJ Open**. 2017 Jan 27;7(1).

Recent Grant Awards

- *Defining the regenerative capacity of ductular cells from non-transplantable human liver*
2017-2021: **£1.82M**; MRC
- *Normothermic regional perfusion national service evaluation*
2014-2015: **£75,000**; NHSBT
- *Novel technologies national service evaluation*
2014-2017: **£442,500**; NHSBT
- *Edinburgh Organ Reconditioning Hub*
2014-2015: **£75,000**; Edinburgh Health Foundation
- *The effect of in-situ normothermic regional perfusion during organ retrieval from donors after circulatory death on liver recovery and ischaemic reperfusion*
2014-2015: **£55,000**; Edinburgh Health Foundation
- *Developing a portable oxygen generator device*
2014-2015: **£66,000**; MRC Confidence in Concept

Congratulations

In early March, **Miss Lorna Marson** became the first female President of *British Transplantation Society* for a 2 year tenure. Miss Marson will be assisted in this role by new Vice President and President Elect, **Professor Stephen Wigmore**, and newly elected councillor for transplant co-ordination, **Jen Lumsdaine**, a Live Kidney Donor Co-ordinator from the renal transplant unit at the Royal Infirmary of Edinburgh.

On January 1st 2017 **Professor Rowan Parks** took up the Presidency of the Association of Surgeons of Great Britain and Ireland (ASGBI) for 2 years.

Congratulations to the ESSQ tutors and team as they celebrate 10 years of the MSc in Surgical Sciences



Recent Grant Awards

Richard McGregor, *Molecular mechanisms supporting collateralisation and angiogenesis following ischaemic injury of the hind-limb in the WT1-GFP transgenic mouse line*
 Royal College of Surgeons, Edinburgh
 Small Research Pump Priming Grant
 2017-2018, £9,400

Miss Lorna Marson, Mr Ewen Harrison, Professor Stephen Wigmore, Dr David Kluth, Professor Steff Lewis, Dr Kourash Saeb-Parsy, Ms Rachel Thomas and the Edinburgh Clinical Trials Unit. *HOT2 – A blinded randomized controlled investigation into the efficacy of heme arginate in improving primary graft function in deceased donor kidney transplantation*
 Kidney Research UK Programme Grant
 2017 - 2021, £750,000

Visiting Professors

Thomas G Weiser, MD

Associate Professor of Surgery, Stanford University Medical Centre



Beginning in August this year Tom Weiser will join the department of Clinical Surgery in Edinburgh for a one year sabbatical.

Dr Weiser is a general and trauma surgeon, and surgical intensivist at Stanford University Medical Centre. Dr

Weiser also has an active research interest focussed on evaluating the role of surgical care in the delivery of health services in resource poor settings, particularly in low and middle incomes countries. Dr Weiser is interested in barriers to access and provision of surgical care, the quality of surgical services, and outcomes research. Current projects focus on quality and cost effectiveness of care, and strategies for improving the safety and reliability of surgical delivery in resource poor settings. Dr Weiser has extensive experience in surgical program assessment many countries including Cambodia, India, the UK, and the United States. From 2006-2009 Dr Weiser was part of the World Health Organization's Safe Surgery Saves Lives program that quantified the global volume of surgery and created, implemented, evaluated, and promoted the WHO Surgical Safety Checklist.

James IV Travelling Fellowship

Prof Kjetil Søreide



Visiting Fellow: Prof Kjetil Søreide

Prof Kjetil Søreide from the University of Bergen, Norway, visited the department of clinical surgery as part of a James IV travelling fellowship.

Prof Kjetil is a general and GI surgeon with research interests in GI cancer, translational science and global surgery. Prof Kjetil is hoping to return to Edinburgh later in the year for a visiting sabbatical

Recent Publications

McKechnie PS, Kerslake DA, Parks RW. **Time to CT and Surgery for HPB Trauma in Scotland Prior to the Introduction of Major Trauma Centres.** *World J Surg.* 2017, Epub ahead of print

Wigmore SJ, Oniscu GC. **Side-stream dark field videomicroscopy for evaluating liver microcirculation in vivo.** *Liver Transpl.* 2017, Epub ahead of print

van Dijk AH, de Reuver PR, Besselink MG, van Laarhoven KJ, Harrison EM, Wigmore SJ, Hugh TJ, Boermeester MA. **Assessment of available evidence in the management of gallbladder and bile duct stones: a systematic review of international guidelines.** *HPB (Oxford).* 2017 E-pub ahead of print

McLean KA, Camilleri-Brennan J, Knight SR, Drake T, Ots R, Shaw CA, Wigmore SJ, Harrison EM. **Decision modelling in donation after circulatory death (DCD) liver transplantation.** *Liver Transpl.* 2016, Epub ahead of print

Wigmore SJ. **ALPPS: The argument against.** *Eur J Surg Oncol.* 2017 Feb;43(2):249-251

Gallagher KM, O'Neill S, Harrison EM, Ross JA, Wigmore SJ, Hughes J **Recent early clinical drug development for acute kidney injury.** *Expert Opin Investig Drugs.* 2017 Feb;26(2):141-154

Avery KN, Chalmers KA, Brookes ST, Blencowe NS, Coulman K, Whale K, Metcalfe C, Blazeby JM; ROMIO Study Group.; CONSENSUS Esophageal Cancer Working Group.. **Development of a Core Outcome Set for Clinical Effectiveness Trials in Esophageal Cancer Resection Surgery.** *Ann Surg.* 2017, Epub ahead of print

Gillies MA, Harrison EM, Pearse RM, Garrioch S, Haddow C, Smyth L, Parks R, Walsh TS, Lone NI. **Intensive care utilization and outcomes after high-risk surgery in Scotland: a population-based cohort study.** *Br J Anaesth.* 2017 Jan;118(1):123-131.

Gibbons A, Cinnirella M, Bayfield J, Wu D, Draper H, Johnson RJ, Tomson CR, Forsythe JL, Metcalfe W, Fogarty D, Roderick P, Ravanan R, Oniscu GC, Watson CJ, Bradley JA, Bradley C. **Patient preferences, knowledge and beliefs about kidney allocation: qualitative findings from the UK-wide ATTOM programme.** *BMJ Open.* 2017 Jan 27;7(1)

Ramage MI, Johns N, Deans CD, Ross JA, Preston T, Skipworth RJ, Jacobi C, Fearon KC. **The relationship between muscle protein content and CT-derived muscle radio-density in patients with upper GI cancer.** *Clin Nutr.* 2016, S0261-5614(16)31357-7

O'Sullivan ED, Battle RK, Zahra S, Keating JF, Marson LP, Turner DM **Allosensitization following bone graft.** *Am J Transplant.* 2017, Epub ahead of print

Stimson RH, Anderson AJ, Ramage LE, Macfarlane DP, de Beaux AC, Mole DJ, Andrew R, Walker BR. **Acute physiological effects of glucocorticoids on fuel metabolism in humans are permissive but not direct.** *Diabetes Obes Metab.* 2017, [Epub ahead of print]

Webber V, Low C, Skipworth RJ, Kumar S, de Beaux AC, Tulloh B. **Contemporary thoughts on the management of Spigelian hernia.** *Hernia.* 2017, Epub ahead of print

Ramage MI, Johns N, Deans CD, Ross JA, Preston T, Skipworth RJ, Jacobi C, Fearon KC. **The relationship between muscle protein content and CT-derived muscle radio-density in patients with upper GI cancer.** *Clin Nutr.* 2016, Epub ahead of print

O'Neill, J. Robert PhD, MRCSEd; Kennedy, Ewan D. MBChB (Hons); Save, Vicki FRCPATH; Langdale-Brown, Barbara FRCPATH; Wall, Lucy MD, FRCP; Skipworth, Richard J.E. MD, FRCSEd; Paterson-Brown, Simon MS **Patients unfit for neoadjuvant therapy may still undergo resection of locally advanced esophageal or esophagogastric junctional cancer with acceptable oncological results** *IJS Oncology: 2(2), 2017*

Skipworth RJ, Stephens NA, Johns N, Guttridge DC, Tisdale MJ, Baracos VE, Glass DJ. **Ken Fearon.** *Cell Metab.* 2016, 24(6):765-766.

Recent Publications

Ebhardt HA, Degen S, Tadini V, Schilb A, Johns N, Greig CA, Fearon KC, Aebersold R, Jacobi C. **Comprehensive proteome analysis of human skeletal muscle in cachexia and sarcopenia: A pilot study.** *J Cachexia Sarcopenia Muscle.* 2017, Epub ahead of print

Ljungqvist O, Scott M, Fearon KC. **Enhanced Recovery After Surgery: A Review.** *JAMA Surg.* 2017, 1;152(3):292-298

Simmons CP, McMillan DC, McWilliams K, Sande TA, Fearon KC, Tuck S, Fallon MT, Laird BJ. **Prognostic Tools in Patients With Advanced Cancer: A Systematic Review.** *J Pain Symptom Manage.* 2017, Epub ahead of print

Arends J, Bachmann P, Baracos V, Barthelemy N, Bertz H, Bozzetti F, Fearon K, Hütterer E, Isenring E, Kaasa S, Krznaric Z, Laird B, Larsson M, Laviano A, Mühlebach S, Muscaritoli M, Oldervoll L, Ravasco P, Solheim T, Strasser F, de van der Schueren M, Preiser JC. **ESPEN guidelines on nutrition in cancer patients.** *Clin Nutr.* 2017, Feb;36(1):11-48.

McFarlane AJ, McSorley HJ, Davidson DJ, Fitch PM, Errington C, Mackenzie KJ, Gollwitzer ES, Johnston CJ, MacDonald AS, Edwards MR, Harris NL, Marsland BJ, Maizels RM, Schwarze J. **Enteric helminth-induced type I interferon signaling protects against pulmonary virus infection through interaction with the microbiota.** *J Allergy Clin Immunol.* 2017 Feb, Epub ahead of print

McLean KA, Sheng Z, O'Neill S, Boyce K, Jones C, Wigmore SJ, Harrison EM. **The Influence of Clinical and Patient-Reported Outcomes on Post-surgery Satisfaction in Cholecystectomy Patients.** *World J Surg.* 2017, (Epub ahead of print)

Ebhardt HA, Degen S, Tadini V, Schilb A, Johns N, Greig CA, Fearon KC, Aebersold R, Jacobi C **Comprehensive proteome analysis of human skeletal muscle in cachexia and sarcopenia: A pilot study.** *J Cachexia Sarcopenia Muscle.* 2017, Epub ahead of print

Skipworth RJ, Stephens NA, Johns N, Guttridge DC, Tisdale MJ, Baracos VE, Glass DJ. **Ken Fearon.** *Cell Metab.* 2016, 24(6):765-766.

PURE Reminder

Have you had a manuscript accepted for publication recently?

Thank you to everyone who has forwarded manuscripts for deposition in PURE.

The Open Access compliance for the College of Medicine and Veterinary Medicine, of which Clinical Surgery is a part, was **83.4%** between 1 April 2016 and 30th November 2017.

Please note that in order to qualify for the next Research Excellence Framework (REF), all publications must comply with the University of Edinburgh Open Access Policy; all manuscripts must be deposited in the PURE publication repository within **3 months of acceptance.** **Any publications not deposited in PURE within 3 months will not be eligible for the next 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 Research Manager, Katie Shaw, will deposit manuscripts in PURE on your behalf.

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

Clinical Trials Update

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

TWIST—Tracking Wound Infection with Smart Phone Technology

A randomised controlled trial to investigate if a smartphone tool can shorten time to diagnosis of surgical site infections.

All patients (>16) undergoing abdominal surgery who a smartphone are eligible to enter the study. Visually impaired patients are excluded.

Patients will be randomised to receive either standard post-operative care or standard post-operative care plus use of the smartphone tool.

Those in the smartphone group will receive a series of questions via text message and have the facility to upload a photograph of their surgical wound.

Primary outcome measure is time to diagnosis of an SSI and secondary outcome measures will consider use of A&E and GP services

For more information please contact Principle Investigator, Mr Ewen Harrison, or Mr Michael Ramage

The Balanced Anaesthesia Study

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

For more information contact the Edinburgh principle investigator, Dr Gary Morrison or local research nurse Alastair Lang (0131 242 9453)

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 recently been refunded by CRUK for 5 years and is continuing to recruiting. NHS Lothian have now recruited 220 patients into this study

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

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.

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

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 currently recruiting. For more information contact Mr Richard Skipworth.

Coming soon.....

The ROMIO Trial

A multicentre randomised controlled trial comparing minimally invasive verses 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 early 2017.

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

Future Conference Submission Deadlines

Conference	Date	Location	Abstract Submission
<i>Association of Upper GI Surgeons of Great Britain & Ireland (AUGIS)/ Great Britain & Ireland Hepato Pancreato Biliary Association (GBIHPBA)</i>	<i>21-22 September 2017</i>	<i>Cork Ireland</i>	<i>TBC</i>
<i>Society for Academic and Research Surgery (SARS)</i>	<i>10-11 January 2018</i>	<i>Nottingham, UK</i>	<i>Open July 2017</i>
<i>British Transplant Society</i>	<i>14-16 March 2018</i>	<i>Brighton, UK</i>	<i>TBC</i>
<i>Society on Sarcopenia, Cachexia and Wasting Disorders</i>	<i>8-10 September 2018</i>	<i>Rome, Italy</i>	<i>30 July 2017 (late breaking research 30 September 2017)</i>
<i>Annual Academic Surgical Congress</i>	<i>30 January—1 February 2018</i>	<i>Jacksonville, Florida, USA</i>	<i>TBC</i>

HealthyR: R for Healthcare data analysis



The next HealthyR course scheduled for May 2017 is now fully booked.

To register interest for the next course please contact R.Ots@ed.ac.uk

For information please see the course website

<http://healthyr.surgicalinformatics.org/>

Latest research from the Departments of Surgery & Critical Care features in the Scottish Herald cartoon!



Gillies MA, Lone NI, Pearse RM, Haddow C, Smyth L, Parks RW, Walsh TS, Harrison EM
 Effect of day of the week on short- and long-term mortality after emergency general surgery.
BJS, 2017, doi:10.1002/bjs.10507

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