



Clinical Surgery EVVS

Ms Lorna Marson is a Reader in Transplant Surgery and honorary consultant transplant surgeon. She has a clinical practice in kidney and pancreas transplantation, involving both living and deceased donation, and an active laboratory-based research interest in inflammation during renal transplantation.

Lorna currently has a clinical research portfolio



Ms Lorna Marson: Reader & Honorary Transplant Surgeon

that encompasses factors affecting cold ischaemic time, the impact of the virtual cross matching and the management of antibodym e d i a t e d rejection.

In the laboratory, Lorna has worked to develop murine models of renal

transplantation, exploring possible mechanisms for reducing ischaemia reperfusion injury (IRI) and chronic allograft damage. She is particularly interested in the role of innate immunity in post-transplantation injury and works to translate laboratory findings into clinical practice.

Over the past 5 years Lorna has used the murine model of renal transplantation to demonstrate that treatment with heme arginate (HA) leads to increased expression of the enzyme, haemoxygenase-1 (HO-1), and this is protective

against IRI. This has now been demonstrated in the clinical setting in a phase 11b trial, undertaken by Lorna's research fellow, **Rachel Thomas**, who won the Moynihan medal for this work and published last year. Following the success of this early trial, Lorna has been awarded a substantial programme grant from Kidney Research UK to conduct a multi-centre randomized controlled trial, the HOT-2 Trial, which will begin recruitment in late 2017/early 2018, and aims to determine whether treatment with HA improves early graft function.

Lorna is the Associate Dean for Surgery in South East Scotland and regularly supervises both undergraduate and postgraduate students, particularly surgical trainees; her current PhD student, **Victoria Banwell**, has just been awarded a Kidney Research UK clinical training fellowship to examine the role of miR-124 in chronic allograft damage

Lorna is President of the British Transplantation Society from 2017-19, and is the first woman to have been elected to this post. She is the lead for diversity and respect for Edinburgh Medical School and chairs the year 2 exam board.

Welcome to the Summer 2017 edition of the Department of Clinical Surgery Newsletter

In This Issue:

Focus on Renal Transplant Research

Congratulations & Recent Grant Awards

News Round Up

Clinical Trials Update

Recent Publications

Conference
Submission
Deadlines &
Future Events

Recent Publications

Sautenet B, Tong A, Manera KE, Marson L, McDonald S, Chadban S, Rajan T, Craig JC. Developing consensus-based priority outcome domains for trials in kidney transplantation: a multinational Delphi survey with patients, caregivers and health professionals. *Transplantation* 2017 (Accepted in press)

O'Sullivan ED, Battle RK, Zahra S, Keating JF, Marson LP, Turner DM. **Allosensitization Following Bone Graft.** *Am J Transplant.* 2017 [Epub ahead of press]

Knight SR, Metcalfe L, O'Donoghue K, Ball ST, Beale A, Beale W, Hilton R, Hodkinson K, Lipkin GW, Loud F, Marson LP, Morris PJ. **Defining Priorities for Future Research: Results of the UK Kidney Transplant Priority Setting Partnership**. *PLoS One*. 2016 Oct 24;11(10)

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*. 2016 Jan;100(1):176-83

Shrestha S, Bradbury L, Boal M, Blackmur JP, Watson CJ, Taylor CJ, Forsythe JL, Johnson R, Marson LP. Logistical Factors Influencing Cold Ischemia Times in Deceased Donor Kidney Transplants. Transplantation. 2016 Feb;100(2):422-8

Recent grant awards

- HOT-2 A blinded randomized controlled investigation into the efficacy of heme arginate in improving primary graft function in deceased donor kidney transplantation. 2017 2021: £750,000; Kidney Research UK
- Identifying and implementing standardised outcomes in kidney transplantation.
 2017 - 2019: \$270 076; National Health and Medical Research Council (Australia)
- Targeting fibrosis in chronic allograft damage 2017 - 19: £175, 000; Kidney Research UK Clinical Training Fellowship for Victoria Banwell
- RIP1 Kinase inhibition to reduce kidney injury 2015 - 2018: £207,000; MRC Industry Collaboration Agreement (MICA), GlaxoSmithKline Training Fellowship for Kevin Gallagher
- Success in Organ Transplantation starts with Quality in Organ Donation - QUOD 2012 - 2016: £80,200; NHSBT

Congratulations & Recent Grant Awards

Rachel Forthsye was awarded the Thomas J Fogarty Award at the annual meeting of the Society for Vascular Surgery, San Diego, June 2017.

Professor Stephen Wigmore has been elected Vice President (President Elect) of the British Transplant Society 2017-2021

Riinu Ots, Paula J.W. Smith, Catherine A. Shaw, Uzma Tufail-Hanif, Ewen M. Harrison, Stephen J. Wigmore, O. James Garden. "ShinyStats": A new interactive and engaging statistics training application to complement existing resources. Principal's Teaching Award Scheme 2017-2019, £4980

Janice Miller

CRUK Pre-Doctoral Research Bursary 2017, £25,000

News Round Up

In May 2017, Prof James Garden, Dr Domenica Coxon and Miss Sarah Jones from the ESSQ Team attended the Royal Australasian College of Surgeons (RACS) Annual Congress in Adelaide, Australia, to promote the suite of distance learning programmes offered in Surgery and to strengthen Alumi links with past graduates.

Here Domencia Coxon & Sarah Jones report on the visit.



Currently, over a third of our 270 MSc in Surgical Sciences students are based in Australia. The collaborative links with the

Royal Australasian College of Surgeons (RACS) have gone from strength to strength in recent years, with the MSc in Surgical Sciences being accredited by RACS since 2012, and the ChM in General Surgery since 2014. The ESSQ team met with students living and working in

Australia, gaining feedback to improve our courses and developing alumni links for the future. It was also an opportunity to meet with surgeons supervising students undertaking their Masters Research Projects, as well as seeking to understand ways in which we might extend our global outreach to low and middle-income countries in the Asiapacific region. We were able to promote our newly secured Commonwealth scholarships and highlight the success our past student, Dr Kalongolera, who was one of seven Malawian trainees to benefit from a £9,000 scholarship supported jointly by Johnson and Johnson, the RSCEd and Physicians for Peace.

Many past and present surgical trainees and e-tutors alike, enthusiastically introduced themselves, speaking fondly of Edinburgh and RCSEd. Face-to-face student feedback was extremely positive; one student commented that the programme's reputation alone had led him to enrole and he had been not disappointed. The clinical content of the MSc and ChM programmes was highly regarded as a means of keeping the surgical trainees abreast with developments in evidence-based surgery.

The quality of the academic teaching and the support from the ESSQ team was highly valued, as was our virtual learning environment, eeSURG, which, having been refined over a number of years in response to student feedback, is now intuituve to use and accessible on smartphone, i-pad, and laptop. Students reported no issues using asynchronous discussion boards in differing time zones with the key to their success being attributed to tutors developing and encouraging an environment where authentic and honest discussions can occur between students on the boards – without the fear of getting it "wrong" or being graded down

A longstanding key driver of the programmes is that students are able to develop their careers whilst not taking time dedicated time out from clinical training. This, together with a competitive pricing structure, has helped to keep student recruitment high in Australia. Many of the current students we met were enthusiastic to establish an annual alumni event at the RACS congress. and to volunteer as e-tutors for our courses in the future.



New MSc in Patient Safety and Human Clincal Factors

Beginning in the 2018/19 academic session, the ESSQ will launch a new on-line, distance learning 3-year MSc in Patient Safety and Human Clinical Factors

To register interest in this new degree programme please visit:

https://www.surveymonkey.co.uk/r/PatientSafe

Research Fellows

Over the summer several Clinical Research Fellows will complete their research projects and return to surgical training

Diana Wu completes her PhD with Mr Gabi Oniscu on the ATTOM project and will commence Surgical Training in the West of Scotland in August.

Micheal Ramage who has been conducting an MD as part of the OCCAMS study returns to Surgical Training in the East of Scotland in August

Alastair Hayes completes his PhD in Mr Damian Mole's group in the Centre for Inflammation Research and returns to Surgical Training

Later in the year Janice Miller will begin an MD supervised by Mr Richard Skipworth and Katie Conner will join the Centre for Inflammation Research conducting a PhD with Ms Lorna Marson and Professor Stephen Wigmore. Profiles of the new Research Fellows and their research projects will feature in the Autumn edition of this newsletter.

PURE Reminder

Have you had a manuscript accepted for publication recently?

In order to increase the accessibility of Edinburgh University research, call manuscripts must now be deposited in PURE within 3 months of acceptance.

Any publications not deposited in PURE within 3 months of acceptance will not be eligible for the next ref.

What do you need to do?

The Clinical Surgery Research Manager, Dr Katie Shaw, will deposit manuscripts in PURE on your behalf.

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

Pure.ClinSurg@ed.ac.uk

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

Visiting Professor

Carlton Barnett, MD University of Colorado Medical School

Dr Barnett is a Professor of gastrointestinal and



endocrine surgery at Denver Health Medical Center, Colorado, specialising in complex HPB patients.

In addition to his clinical practice, Dr Barnett also has an active laboratory based research interest in metastatic pancreatic cancer.

Hosted by Mr Ewen Harrison, Dr Barnett visited the department of Clinical Surgery at Edinburgh University in July. During his visit Dr Barnett spent time in clincal sessions as well as meeting with research fellows from the department to discuss their programmes of research.

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**

New Trials

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. Site initiaion for ROMIO will take place on July 13th 2017 after which NHS Lothian will open as a trial site and begin patient recruitment

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

The HOT-2 Trial

HOT-2 is a blinded randomized controlled investigation into the efficacy of heme arginate in improving primary graft function in deceased donor kidney transplantation. Ms Lorna Marson is the Chief Investigator and Edinburgh will be the lead centre for this multicentre trial

It is anticipated that Edinburgh will open as the first trial site and begin recruitment late in 2017/early 2018.

For more information about HOT-2 please contact Chief Investigator, **Ms Lorna Marson**.

On Going Trials

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

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

The NeoAegis Trial

Aphase 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**.

Recent Publications

Valente R, Hayes AJ, Haugvik SP, Hedenström P, Siuka D, Korsæth E, Kaemmerer D, Robinson SM, Maisonneuve P, Delle Fave G, Lindkvist B, Capurso G. Risk and Protective Factors for the Occurrence of Sporadic Pancreatic Endocrine Neoplasms. Endocr Relat Cancer. 2017 [Epub ahead of print]

Haugvik SP, Basim Ibrahim I, Hedenström P, Valente R, Hayes AJ, Siuka D, Gladhaug IP, Capurso G. Smoking, alcohol and family history of cancer as risk factors for small intestinal neuroendocrine tumors: a systematic review and meta-analysis. Scand J Gastroenterol. 2017 Aug;52(8):797-802

Albert V, Mndolo S, Harrison EM, O'Sullivan E, Wilson IH, Walker IA. Lifebox pulse oximeter implementation in Malawi: evaluation of educational outcomes and impact on oxygen desaturation episodes during anaesthesia. *Anaesthesia*. 2017 Apr 24 [Epubahead of print]

Guest RV, Boulter L, Dwyer BJ, Forbes SJ. **Understanding** liver regeneration to bring new insights to the mechanisms driving cholangiocarcinoma. *njp* Regenerative Medicine. 2017 [Epub ahead of print]

Noorani A, Bornschein J, Lynch AG, Secrier M, Achilleos A, Eldridge M, Bower L, Weaver JMJ, Crawte J, Ong CA, Shannon N, MacRae S, Grehan N, Nutzinger B, O'Donovan M, Hardwick R, Tavaré S, Fitzgerald RC; Oesophageal Cancer Clinical and Molecular Stratification (OCCAMS) Consortium. A comparative analysis of whole genome sequencing of esophageal adenocarcinoma pre- and post-chemotherapy. *Genome Res.* 2017, 27(6):902-912.

Skipworth RJE, Ross JA. **Ken Feron**. *J Cachexia Sarcopenia Muscle*. 2017 Feb; 8(1): 3–4.

Currow DC, Skipworth RJ. The emerging role of anamorelin hydrochloride in the management of patients with cancer anorexia-cachexia. Future Oncol. 2017. [Epub ahead of print]

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**. *Br J Surg*. 2017 Jun;104(7):936-945

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 Jul;41(7):1796-1800

Wu DA, Robb ML, Watson CJE, Forsythe JLR, Tomson CRV, Cairns J, Roderick P, Johnson RJ, Ravanan R, Fogarty D, Bradley C, Gibbons A, Metcalfe W, Draper H, Bradley AJ, Oniscu GC. Barriers to living donor kidney transplantation in the United Kingdom: a national observational study. Nephrol Dial Transplant. 2017 May 1;32(5):890-900.

Wu CJ, Bradley JA, DA, Watson Johnson RJ. Forsythe JL, Oniscu GC. Global trends deceased challenges in donor kidnev allocation. Kidney Int. 2017 Jun;91(6):1287-1299

Palakkan AA, Nanda J, Ross JA . Pluripotent stem cells to hepatocytes, the journey so far. Biomed Rep. 2017 Apr;6(4):367-373

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 Jul;41(7):1752-1761

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]

Hutchinson JP, Rowland P, Taylor MRD, Christodoulou EM, Haslam C, Hobbs CI, Holmes DS, Homes P, Liddle J, Mole DJ, Uings I, Walker AL, Webster SP, Mowat CG, Chung CW. Structural and mechanistic basis of differentiated inhibitors of the acute pancreatitis target kynurenine-3-monooxygenase. *Nat Commun.* 2017 Jun 12;8:15827

Walker AL, Ancellin N, Beaufils B, Bergeal M, Binnie M, Bouillot A, Clapham D, Denis A, Haslam CP, Holmes DS, Hutchinson JP, Liddle J, McBride A, Mirguet O, Mowat CG, Rowland P, Tiberghien N, Trottet L, Uings I, Webster SP, Zheng X, Mole DJ. Development of a Series of Kynurenine 3-Monooxygenase Inhibitors Leading to a Clinical Candidate for the Treatment of Acute Pancreatitis. *J Med Chem.* 2017 Apr 27;60(8):3383-3404

Liddle J, Beaufils B, Binnie M, Bouillot A, Denis AA, Hann MM, Haslam CP, Holmes DS, Hutchinson JP, Kranz M, McBride A, Mirguet O, Mole DJ, Mowat CG, Pal S, Rowland P, Trottet L, Uings IJ, Walker AL, Webster SP. The discovery of potent and selective kynurenine 3-monooxygenase inhibitors for the treatment of acute pancreatitis. Bioorg Med Chem Lett. 2017 May 1;27(9):2023-2028.

Adair A. Bariatric surgery for the obese patients undergoing liver transplantation: the case for. HPB, 2017. [Epub ahead of print]

Clinical Surgery EWS

Taylor DM, Fraser SDS, Bradley JA, Bradley C, Draper H, Metcalfe W, Oniscu GC, Tomson CRV, Ravanan R, Roderick PJ; ATTOM investigators. A Systematic Review of the Prevalence and Associations of Limited Health Literacy in CKD. Clin J Am Soc Nephrol. 2017. [Epub ahead of print]

Oniscu GC. From 'one for all to all for one': a conceptual shift in organ perfusion and preservation. *Curr Opin Organ Transplant*. 2017 Jun;22(3):242-244

Tsui SSL, Oniscu GC. Extending normothermic regional perfusion to the thorax in donors after circulatory death. *Curr Opin Organ Transplant*. 2017 Jun;22(3):245-250

Ironside N, Bell R, Bartlett A, McCall J, Powell J, Pandanaboyana S. Systematic review of perioperative and survival outcomes of liver resections with and without preoperative portal vein embolization for colorectal metastases. *HPB*, 2017 [Epub ahead of press]

Lui DH, McDonald JJ, de Beaux A, Tulloh B, Brady RRW. Contemporary engagement with social media amongst hernia surgery specialists. *Hernia*. 2017. [Epub ahead of print]

de Beaux A, Sanders D, Stephenson BM. **Tribute to Professor Andrew Kingsnorth**. *Hernia*. 2017. [Epub ahead of print]

Sigounas DE, Krystallis C, Couper G, Paterson-Brown S, Tatsioni A, Plevris JN. Argon plasma coagulation compared with stent placement in the palliative treatment of inoperable oesophageal cancer. *United European Gastroenterol J.* 2017 [Epub ahead of print]

O'Neill JR, Pak HS, Pairo-Castineira E, Save V, Paterson-Brown S, Nenutil R, Vojtěšek B, Overton I, Scherl A, Hupp TR. Quantitative Shotgun Proteomics Unveils Candidate Novel Esophageal Adenocarcinoma (EAC)-specific Proteins. *Mol Cell Proteomics*. 2017 Jun;16(6):1138-1150

McBRIDE OM, Chalmers RT. Follow-up and surveillance of vein grafts: when and how to intervene to prevent complications. *J Cardiovasc Surg (Torino)*. 2017 Apr;58(2):284-292

Pettersen K, Andersen S, Degen S, Tadini V, Grosjean J, Hatakeyama S, Tesfahun AN, Moestue S, Kim J, Nonstad U, Romundstad PR, Skorpen F, Sørhaug S, Amundsen T,

Grønberg BH, Strasser F, Stephens N, Hoem D, Molven A, Kaasa S, Fearon K, Jacobi C, Bjørkøy G.Cancer cachexia associates with a systemic autophagy-inducing activity mimicked by cancer cell-derived IL-6 trans-signaling. *Sci Rep.* 2017 May 17;7(1):2046.

Currow D, Temel JS, Abernethy A, Milanowski J, Friend J, Fearon KC ROMANA 3: A phase 3 safety extension study of anamorelin in advanced non-small cell lung cancer (NSCLC) patients with cachexia. *Ann Oncol.* 2017 [Epub ahead of print]

Noble F, Lloyd R, Walker R, McManus D, Turkington RC, Bedford M, Griffiths E, Whiting J, Nutzinger B, Grehan N, Fitzgerald RC, O'Neill JR, Skipwtoth RJE, Save V, Rupesh S, Mercer S, Saunders JH, Sommro IN, Parsons SL, Underwood TJ on behalf of the OCCAMS consortium. A mulitcentre cohort study to define and validate pathological assessment of response to neoadjuvant therapy in oesophagogastric adenocarcinoma. *BJS*. 2017, Accepted in Press

O'Neill JR, Pak HS, Pairo-Castineira E, Save V, Paterson-Brown S, Nenutil R, Vojtesek B, Overton I, Scherl A, Hupp TR. Quantitative Shotgun Proteomics unveils Candidate Novel Oesophageal Adenocarcinoma-Specific Proteins. *Molecular and Cellular Proteomics*. 2017;16(6):1138-50

Items of News to Share?

If you have any items of news you would like to feature in this newsletter or events you'd like to promote please contact the Clinical Surgery Research Manager, **Dr Katie Shaw** (catherine. shaw@ed.ac.uk). The next edition is due in the Autumn.



Future Conference Submission Deadlines

Conference	Date	Location	Abstract Submission
Society of Academic & Research Surgery	10 - 11th January 2018	Nottingham, UK	Opens July 2017
British Transplant Society (BTS)	14th - 16th March 2018	Brighton, UK	Save the date - TBC
AUGIS Annual Scientific Congress	21st - 22nd September 2018	Cork, Ireland	Closed June 26
International Hepato- Pancreato-Biliary Assocation (IHPBA)	3rd - 7th September 2018	Geneva, Switzerland	Save the date - TBC
Association of Surgeons of Great Britain and Northern Ireland (ASGBI)	9th - 11th May 2018	Liverpool	Save the date - TBC
Royal Australian College of Surgeons (RACS) Annual Scientific Congress	7th - 11th May 2018	Sydney, Australia	Save the date - TBC

Upcoming Events



HealthyR*: Practical Logistic Regression

4th August 2017, Chancellors Building

A **new** 1-day training course teaching the use of R to perform logistic regression analysis. Course content specifically focuses on health-related data.

Suitable for those with some experience of R or those who have previously attended HealthyR. Please note this course is not suitable for complete beginners

£60 for UoE Students; £80/NHS UoE Staff; £100 External Delegates

For more information please email Dr Riinu Ots (R.Ots@ed.ac.uk) or to book your place directly click <u>here.</u>

Save the Date



HealthyR: R for healthcare data analysis

22nd - 24th November 2017

A 2.5-day quick start R course suitable for complete beginners. For more details please email Dr Riinu Ots (R.Ots@ed.ac.uk)

Edinburgh School of Surgery Day December 1st, 2017



Full details of the programme and abstract Submission deadline to follow later in the year.

The Chiene Medal for Basic Science research and The Ian B Macleod Medal for Clinical Research will be awarded at the event.