

A blue-tinted photograph of an operating room. In the foreground, a large surgical light fixture with many small circular lights is visible. In the background, a surgeon in a blue scrub suit is performing a procedure on a patient. The overall scene is clinical and professional.

SURGICAL AND PERIOPERATIVE SERVICES

Surgical and Perioperative Services



Dr Barry O'Laughlin
Executive Director
Surgical and Perioperative Services

Surgical and Perioperative Services is made up of twelve speciality departments and the operating rooms service. The Service Line provides a wide range of surgical services to Metro North Hospital and Health Service and is a major tertiary referral centre for Queensland. The importance of clinical research is reflected by significant research activities in the departments.

Some highlights for 2018 were:

The establishment of the Jamieson Trauma Institute (JTI) and the appointment of Professor Michael Scheutz, Trauma and Orthopaedic Surgeon, as its inaugural Director. The Jamieson Trauma Institute is a collaboration of service partners with a focus on research into trauma prevention, systems and clinical practice.

Dr Ben Green and associates from the Breast Endocrine Surgery unit and Dr Matt Peters from the Plastics and Reconstructive Surgery Department, showcased contemporary management of breast cancer and world class outcomes at the 27th Annual RBWH Healthcare Symposium in September. Staff of the Department of Anaesthesia and Perioperative Medicine produced 45 publications and were awarded more than \$500,000 of research funding.

The Department of Orthopaedic Surgery was responsible for more than 20 publications and Dr Kevin Tetsworth was an invited speaker and panellist at scientific meetings in 10 countries throughout the year. 18 publications and three book chapters were produced by the Colorectal and Hepatobiliary units in the Department of General Surgery.

Dr Craig Winter of the Kenneth Jamieson Department of Neurosurgery was awarded a PhD by the University of Cambridge for his work on hypoxia and the blood brain barrier.

Dr Geoff Coughlin, Dr John Yaxley, Professor RA. Gardiner et al. Department of Urology, published the two year follow up results of a randomised trial of Robot assisted laparoscopic prostatectomy versus open retropubic prostatectomy in Lancet Oncology. This trial was a world first study.

Department of Anaesthesia and Perioperative Medicine

Our Research Interest Group in Anaesthesia (RIGA), is committed to providing relevant, up-to-date research for improving patient care that can be translated into practice. After the successful development and opening of the Centre for Excellence and Innovation in Anaesthesia in June 2017, we have continued to facilitate exceptional teaching, training and research with a strong focus on investigator lead research. In 2018, the department has produced a record number of publications (45); supervised post-graduate research students (9); participated in (25) departmental led research projects whilst also collaborating with national and international universities and research institutions (2); on clinical trials focusing on improving patient outcomes after surgery.

The department facilitates a research culture providing mentorship, group support and guidance with all research ideas, including clinical trial project management and execution, research requirements and publishing. One further initiative saw the emergence of new research and training possibilities, collaborating with a Brisbane based start-up company, investigating new technologies in training and education for departmental staff.

2018 saw the department awarded 8 scholarships and two grants equating to over \$548,615 of funding. Our research continues to grow in areas such as bariatric research and intraoperative cell salvage. The aim of research in anaesthetics is to advance optimal anaesthetic care for patients based on world class, research based clinical practice.



Supervised Post-Graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.) University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Julie Lee	PhD (UQ 2015-2019)	ROTEM Thromboelastometry in Obstetrics	Prof. André van Zundert, A/Prof Jeremy Cohen, A/Prof Kerstin Wyssusek, A/Prof. Victoria Eley
Michelle Roets	PhD (UQ 2017-2021)	Intraoperative Cell-Salvage: a cost benefit analysis	A/Prof. David Sturgess, Prof. André van Zundert, A/Prof Kerstin Wyssusek, Dr. Melinda Dean
Angela Tognolini	MPhil (UQ 2018-2020)	Intraoperative lignocaine infusions – Development of an optimised infusion dosing regimen of obese patients	A/Prof. Victoria Eley, Prof. Jason Roberts
Kersi Taraporewalla	PhD (UQ 2017-2021)	Teaching and learning psychomotor skills in anaesthesia	Prof. André van Zundert, Prof. Jeffrey Lipman
Louis Guy	MPhil (UQ 2018-2020)	Oxygen delivery in obese patients undergoing bariatric surgery	A/Prof. Victoria Eley, Prof. André van Zundert, Prof. Jeffrey Lipman
Cienwen Town	PhD (UQ 2017-2021)	Regional Anaesthesia as an intervention for the treatment of burn related procedural pain	Haakan Strand, Prof. André van Zundert, Dr. James Johnson
Lizanne Dalglish	PhD (QUT 2016-2020)	Microcirculatory Dysfunction and Skin Failure in Critically Ill patients: an exploratory study	Prof. Fiona Coyer, Dr. Kathleen Finlayson, Prof. André van Zundert, Dr. Jill Campbell
Sue Lawrence	MPhil (2017-2019)	Lumbar interspinous ligament scussureL a detailed anatomical and imaging investigation	A/Prof. David Reutens, A/Prof. David Sturgess

2018 Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions

Name	Type of Fellowship	Research Program	University <i>(years)</i>
Andre van Zundert	Professor	Faculty of Medicine	University of Queensland
			Queensland University of Technology
		Faculty of Engineering and Sciences	Udayana University, Indonesia
			Victoria University, Melbourne
Kerstin Wyssusek	Associate Professor	Faculty of Medicine	University of Queensland
Victoria Eley	Associate Professor	Faculty of Medicine	University of Queensland
Kersi Taraporewalla	Adjunct Associate Professor	Faculty of Medicine	University of Queensland
Michael Steyn	Associate Professor	Faculty of Medicine	University of Queensland
Wally ABEYPALA	Senior Lecturer	Faculty of Medicine	University of Queensland
Peter CASEY	Associate Lecturer	Faculty of Medicine	University of Queensland
Rebecca CHRISTENSEN,	Associate Lecturer	Faculty of Medicine	University of Queensland
Sandra CONCHA BLAMEY,	Associate Lecturer	Faculty of Medicine	University of Queensland
Gerard EAMES	Associate Lecturer	Faculty of Medicine	University of Queensland
Christopher FUTTER,	Associate Lecturer	Faculty of Medicine	University of Queensland
Rebecca KAMP	Associate Lecturer	Faculty of Medicine	University of Queensland
Steven KLUPFEL	Associate Lecturer	Faculty of Medicine	University of Queensland
Annette LYE	Associate Lecturer	Faculty of Medicine	University of Queensland
Clair MANNING	Associate Lecturer	Faculty of Medicine	University of Queensland
Elizabeth MCLELLAN,	Associate Lecturer	Faculty of Medicine	University of Queensland
Ashlea MEEHAN	Associate Lecturer	Faculty of Medicine	University of Queensland
Leonie ROBERTS	Associate Lecturer	Faculty of Medicine	University of Queensland
Rochelle RYAN	Associate Lecturer	Faculty of Medicine	University of Queensland
Gemma SLYKERMAN,	Associate Lecturer	Faculty of Medicine	University of Queensland
Benjamin SNOW	Associate Lecturer	Faculty of Medicine	University of Queensland
Andrew SOUNESS	Associate Lecturer	Faculty of Medicine	University of Queensland
Angela TOGNOLINI	Associate Lecturer	Faculty of Medicine	University of Queensland
Zoe VELLA,	Associate Lecturer	Faculty of Medicine	University of Queensland
Amy KREPSKA	Lecturer	Faculty of Medicine	University of Queensland
Fayavar AJVADI	Senior Lecturer	Faculty of Medicine	University of Queensland
Linda BECKMANN	Senior Lecturer	Faculty of Medicine	University of Queensland
David BELAVY	Senior Lecturer	Faculty of Medicine	University of Queensland
Michael BOULES	Senior Lecturer	Faculty of Medicine	University of Queensland
Jeremy BRAMMER	Senior Lecturer	Faculty of Medicine	University of Queensland
Adrian CHIN	Senior Lecturer	Faculty of Medicine	University of Queensland
Daniel CLARKE	Senior Lecturer	Faculty of Medicine	University of Queensland
Gareth COLLINS	Senior Lecturer	Faculty of Medicine	University of Queensland
Stephen DAGLISH	Senior Lecturer	Faculty of Medicine	University of Queensland
David FUNG	Senior Lecturer	Faculty of Medicine	University of Queensland
Genevieve GOULDING	Senior Lecturer	Faculty of Medicine	University of Queensland
Anthony HADE	Senior Lecturer	Faculty of Medicine	University of Queensland

2018 Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions (cont)

Name	Type of Fellowship	Research Program	University (years)
Kylie HALL	Senior Lecturer	Faculty of Medicine	University of Queensland
Katherine HAMES	Senior Lecturer	Faculty of Medicine	University of Queensland
Annabelle HARROCKS	Senior Lecturer	Faculty of Medicine	University of Queensland
Dominique HOPKINS	Senior Lecturer	Faculty of Medicine	University of Queensland
Peter IU	Senior Lecturer	Faculty of Medicine	University of Queensland
James JOHNSON	Senior Lecturer	Faculty of Medicine	University of Queensland
Nadia KOEHLER VARGAS	Senior Lecturer	Faculty of Medicine	University of Queensland
Sue LAWRENCE	Senior Lecturer	Faculty of Medicine	University of Queensland
Julie LEE	Senior Lecturer	Faculty of Medicine	University of Queensland
Marc MAGUIRE	Senior Lecturer	Faculty of Medicine	University of Queensland
Kate MCCROSSIN	Senior Lecturer	Faculty of Medicine	University of Queensland
Martina MEYER-WITTING	Senior Lecturer	Faculty of Medicine	University of Queensland
Robert MISKELJIN	Senior Lecturer	Faculty of Medicine	University of Queensland
Wendy MORRIS	Senior Lecturer	Faculty of Medicine	University of Queensland
Gladness NETHATHE,	Senior Lecturer	Faculty of Medicine	University of Queensland
Stephen O'DONOGHUE	Senior Lecturer	Faculty of Medicine	University of Queensland
Nathan PETERS	Senior Lecturer	Faculty of Medicine	University of Queensland
Michelle ROETS	Senior Lecturer	Faculty of Medicine	University of Queensland
Helmut SCHOENGEN	Senior Lecturer	Faculty of Medicine	University of Queensland
Paul SCOTT	Senior Lecturer	Faculty of Medicine	University of Queensland
Tish SEARLES	Senior Lecturer	Faculty of Medicine	University of Queensland
Susannah SHERLOCK	Senior Lecturer	Faculty of Medicine	University of Queensland
Adam STOREY	Senior Lecturer	Faculty of Medicine	University of Queensland
Christopher TURNBULL	Senior Lecturer	Faculty of Medicine	University of Queensland
Rudolf VAN DER WESTHUIZEN	Senior Lecturer	Faculty of Medicine	University of Queensland
Yasmin WHATELY	Senior Lecturer	Faculty of Medicine	University of Queensland
Kellie WREN	Senior Lecturer	Faculty of Medicine	University of Queensland
Molly CLARRIS	Clinical Research Nurse	Anaesthetic Department	RBWH
Simon HOLZ	Clinical Research Nurse	Anaesthetic Department	RBWH
Heather REYNOLDS	Clinical Research Nurse	Anaesthetic Department	RBWH

2018 Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/Department Lead Researchers	Collaborative Researchers	Research Project Title
Andre Van Zundert	Kerstin Wyssusek, Anthony Hade	Positioning of supraglottic airway devices
Angela Tognolini	Dwane Jackson	Pain in Pelvic Exenteration
Cienwen Town	James Johnson, Julie Lee, Andre Van Zundert, Jason Brown	Ultrasound-Guided Regional Anaesthesia in Patients receiving Dressing Change After Split-Skin Grafting for Upper Limb Burn Injuries: a Prospective Randomized Study. REPAIR Study
Cienwen Town	James Johnson, Julie Lee, Andre Van Zundert, Jason Brown	Ultrasound-Guided Regional Anaesthesia in Patients receiving Split-Skin Grafting for Various Burns with Donor Sites from the Upper Thigh: a Prospective Randomized Study, RELIEVE study
Gareth Collins	Gareth Collins, Lizanne Dalglish, Cienwen Town	Optic nerve sheath study to measure ICP

2018 Current RBWH Research Group / Department Led Research Activity (cont)

RBWH Research Group/Department Lead Researchers	Collaborative Researchers	Research Project Title
Gladness Nethathe	Matthew Bright, Amy Krepska, Victoria Eley	Obstetric admission to the intensive care unit quality assurance audit
Julie Lee	Prof Andre van Zundert, A/Prof Jeremy Cohen, Kerstin Wyssusek, Victoria Eley, Amy Krepska, Clare Manning	ROTEM® and platelet function in pre-eclamptic obstetric patients
Julie Lee	Julie Lee, Victoria Eley, Rebecca Kimble, Andre van Zundert, John Rowell, Kerstin Wyssusek	ROTEM® thromboelastometry in obstetrics: baseline parameters in normal and complicated pregnancies. A prospective observational study on labour ward inpatients
Julie Lee	Joel Thomas, Prof Van Zundert	Tongue Morphology on MRIs as predictor of difficult intubation
Kersi Taraporewalla	A/Prof Kersi Taraporewalla, Penelope Sanderson, Marcus Watson, Heather Reynolds, Prof Andre Van Zundert	Respiratory Sonification Trial
Kerstin Wyssusek	Cienwen Town, Michelle Roets, Prof Andre Van Zundert	Pre-existing Iron Deficient Anaemia and patient Blood Management practices at RBWH
Kerstin Wyssusek	Cienwen Town, Michelle Roets, Prof Andre Van Zundert	Pre-existing Iron Deficient Anaemia and patient Blood Management practices at RBWH in accordance with NSQHS standards Guide: Standard 7
Kerstin Wyssusek	Matthew Wagner, Julie Lee, Michelle Roets, Andre Van Zundert	Ten Year Review of Transfusion Practises During Rapid Transfer in Urgent Trauma Cases (RUPTURE)
Lizanne Dalglish	Fiona Coyer, Jill Campbell, Kathleen Finlayson, Andre Van Zundert	Microcirculatory dysfunction and Skin Failure in Critically ill patients. An exploratory study
Louis Guy	Rebecca Christensen, Victoria Eley, Ben Dodd, Kerstin Wyssusek, Andre Van Zundert	Transnasal humidified Rapid-insufflation ventilator exchange (THRIVE) in obese adults: a randomised controlled trial
Michelle Roets	Kerstin Wyssusek, Prof Van Zundert, Dr Melinda Dean, Dr John-Paul Tung, Prof Robert Flower	Does transfusion-related immune modulation occur following intraoperative cell salvage? A pilot study (TRIMICS)
Michelle Roets	Kerstin Wyssusek, Andre Van Zundert, David Sturgess, Louisa Gordon	COSTOMICS (The Cost of Missed Intraoperative Cell Salvage)
Niall Higgins	Kersi Taraporewalla, David Belavy, Michael Boules, Andre Van Zundert	NIRVANA (Near Infra Red Vascular ANALysis)
Rebecca Christensen	Rebecca Christensen, Victoria Eley, Dwane Jackson, Rochelle Ryan, Prof Van Zundert, Prof Jason Roberts, Prof Jeffrey Lipman	Therapeutic concentrations cephazolin in bariatric Caesarean section patients
Rebecca Christensen	Victoria Eley, Leonie Callaway, Kerstin Wyssusek, Andre Van Zundert, Ben Dodd, Michael Stowasser	Validation of Clearsite finger-cuff in patients with problematic non-invasive blood pressure measurement undergoing elective bariatric surgery
Sandra Concha Blamey	Kerstin Wyssusek, Kate Taylor	A prospective audit of Patient Blood Management knowledge in a subgroup of junior doctors at the Royal Brisbane and Women's Hospital
Victoria Eley	Rochelle Ryan, Dwane Jackson, Victoria Eley, Rebecca Christensen, Prof Van Zundert, Prof Jason Roberts, Prof Jeffrey Lipman	Therapeutic concentrations cephazolin in bariatric surgical patients
Victoria Eley	Gunjan Chawla, Matthew Bright, Leonie Callaway	Maternal, neonatal and anaesthesia outcomes of severely obese women
Victoria Eley	Steven Klopogge, Rebecca Christensen	Analysis of post-caesarean section wound infection rates
Victoria Eley	Rebecca Christensen, Helen Barret, Prof Andre Van Zundert, Mathew Smith, Prof Michael Stowasser	Validation of blood pressure readings from the Clearsite finger-cuff compared with invasive blood pressure readings in pregnant women undergoing elective Caesarean section, who have arms which don't suit regular arm cuffs
Angela Tognolini	Dwane Jackson, Victoria Eley, Jason Roberts, Jeffery Lipman, Kerstin Wyssusek, Prof Andre Van Zundert	Intraoperative Lignocaine Infusions: development of an optimised infusion dosing regimen for obese patients

2018 Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Lead Researchers	RBWH Researchers	Research Project Title
A/Prof Timothy Short (University of Auckland)	Michael Edwards, David Belavy, Victoria Eley	The BALANCED Anaesthesia Study: a prospective, randomised clinical trial of two levels of anaesthetics depth in patient outcomes after major surgery
Prof Tomás Corcoran (University of Western Australia)	Julie Lee, Gareth Collins, Victoria Eley	The Perioperative ADministration of Dexamethasone and Infection

2018 Research Awards and Achievements

Recipient	Award	Event
Prof André van Zundert	Best Research Support Award – Highly recommended	Metro North Research Excellence Awards 2018
Prof André van Zundert	Honorary Fellow Royal College of Anaesthetists	Royal College of Anaesthetists, London, UK
Christine Pirrone Gerard Eames, Rebecca Christensen, Holly Rowell	Second place in the best poster prize session	ASA NSC Adelaide October 2018
Adrian Chin, Luke Heywood and Peter lu	Health Services and Implementation Research Award finalist	Metro North Research Excellence Awards 2018
Julie Lee	2018 Australian Society of Anaesthetists (ASA) Kevin McCaul Prize	Australian Society of Anaesthetists National Scientific Congress
Julie Lee, Victoria Eley, Kerstin Wyssusek, Jeremy Cohen, Rebecca Kimble, John Rowell, Mandy Way, Andre van Zundert	Open ePoster Prize	Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, Sydney 2018
Roets M, Wyssusek K, Raniga H, Town C	Oral presentation, Best Posters-presentations and awards. One of best 8 International posters	19 th Annual Symposium on Patient Blood Management (NATA), Haemostasis and Thrombosis, Lisbon, Portugal, April 12-13, 2018

2018 Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups/ Departments	Project Title	Granting Body	Amount in 2018	Total Amount (years)
Julie Lee	RIGA/Anaesthetic Department	Rotational Thromboelastometry (ROTEM®) in Obstetrics	RBWH scholarships (renewed)	\$44,977.62	\$44,977.62 (2018)
Julie Lee	RIGA/Anaesthetic Department	ROTEM® and platelet function in pre-eclamptic obstetric patients	CSL Behring ANZCA Research Award	\$70,000	\$70,000 (2018)
Angela Tognolini	RIGA/Anaesthetic Department	Intraoperative lignocaine infusions: development of an optimised infusion dosing regimen for obese patients	RBWH scholarships	\$44,977.62	\$44,977.62 (2018)
Louis Guy	RIGA/Anaesthetic Department	Effect of high flow nasal oxygen during sedation for gastroenterological endoscopic procedures in bariatric patients	RBWH scholarships	\$44,977.62	\$44,977.62 (2018)
Michelle Roets	RIGA/Anaesthetic Department	Intraoperative cell salvage as an alternative to avoid allogeneic (donated) blood transfusion, comparing usage potential and cost effectiveness	RBWH scholarship (renewed)	\$44,977.62	\$44,977.62 (2018)
Michelle Roets	RIGA/Anaesthetic Department	Does transfusion-related modulation occur following intraoperative cell salvage: a pilot study	ANZCA scholarship	\$20,000	\$20,000 (2018)
Lizanne Dagleish	RIGA/Anaesthetic Department	The microcirculatory dysfunction and skin breakdown in the critically ill patient	RBWH scholarships (renewed)	\$38,082.52	\$38,082.52 (2018)
Lizanne Dagleish	RIGA/Anaesthetic Department	Incidental dark field imaging to examine microcirculation changes in trauma, critical care and surgical patients	Capital Funding PPTF research and training grant	\$41,540.40	\$41,540.40 (2018)

2018 Research Grants – Awarded (cont)

Investigators (RBWH staff in bold)	RBWH Research Groups/ Departments	Project Title	Granting Body	Amount in 2018	Total Amount (years)
Cienwen Town	RIGA/Anaesthetic Department	Regional Anaesthesia as an intervention for the treatment of burn related procedural pain	RBWH scholarships (renewed)	\$38,082.52	\$38,082.52 (2018)
Victoria Eley	RIGA/Anaesthetic Department	Improving the accuracy of perioperative blood pressure monitoring in obese patients	Robert and Janelle Bird Postdoctoral research fellowship	\$50,000	\$50,000 (2018)
Kerstin Wyssusek	RIGA/Anaesthetic Department	Pre-existing Iron Deficient Anaemia and patient Blood Management practices at RBWH	MNHHS Innovation Grant	\$181,000	\$181,000 (2018-2019)

2018 Research Publications

Journal Articles:

1. Canty D, Barth J, Yang Y, **Peters N**, Palmer A, Royse A, Royse C. Comparison of learning outcomes for teaching focused cardiac ultrasound to physicians: A supervised human model course versus an eLearning guided self-directed simulator course. *Journal of Critical Care*. 2019; 49: 38-44
2. **Eley V, Chin A, Sekar R, Donovan T, Krepska A, Lawrence M, Bell S, Ralfe K, McGrath S, Webb L, Robinson A, van Zundert A**, Marquart L. Increasing body mass index and abdominal subcutaneous fat thickness are associated with increased skin-to-epidural space distance in pregnant women. *International journal of obstetric anaesthesia*. 2018. <https://doi.org/10.1016/j.ijoa.2018.10.005>
3. **Eley V, Chin A, Sekar R, Donovan T, Krepska A, Lawrence M, Bell S, McGrath S, Robinson A, Webb L, Marquart L**. Increased maternal abdominal subcutaneous fat thickness and body mass index are associated with increased caesarean delivery: a prospective cohort study. *Acta Obstetrica et Gynecologica Scandinavica*. 2018 doi: 10.1111/aogs.13486
4. **Lee J**. "A case report of pre-eclampsia causing severe hyponatremia. Rare or rarely reported?" *A & A Practice*. 2018 doi: 10.1213/XAA.0000000000000904
5. Gatt D, **van Zundert A**, Gatt S. Abstract and Comments on: a randomized trial of phenylephrine infusion versus bolus dosing for nausea and vomiting during caesarean delivery in obese women, *Can J Anesth* 2018;65:254-262. *Obstet Anesth Digest* 2018; 38:224-225
6. Reina MA, Puigdemívol-Sánchez A, Gatt SP, De Andres J, Prats-Galino A, **van Zundert A**. Electronic microscopy of dural and arachnoid disruptions after subarachnoid block. *Obstet Anesth Digest* 2018; 38:135-136
7. **Wyssusek KH**, Keys MT, **van Zundert AAJ**. Operating room greening initiatives – the old, the new, and the way forward: a narrative review. *Waste Management & Research* 2018. 37 (1):3-19
8. **Town CJ, Johnson J, van Zundert A**, Strand H. Exploring the Role of Regional Anesthesia in the Treatment of the Burn Injured Patient: a Narrative Review of Current Literature. *Clin J Pain*. 2018 Dec 11. doi: 10.1097/AJP.0000000000000680
9. **van Zundert A, Nethathe G**. Abstract and Comments on: Kilpatrick SJ. Trauma in Pregnancy: an underappreciated cause of maternal death, *Am J Obstet Gynecol* 2017;217:499-500. *Obstet Anesth Digest* 2018; 38:127-128
10. **Chin A, Croke B, Heywood L, Brijball R, Pelecanos AM, Abeypala W**. A randomised controlled trial comparing needle movements during combined spinal-epidural anaesthesia with and without ultrasound assistance. *Anaesthesia*. 2018; 734:466-473. doi: 10.1111/anae.14206
11. **Eley VA, Chin A**, Tham I, Poh J, Aujla P, Glasgow E, Brown H, Steele K, Webb L, **van Zundert A**. Epidural extension failure in women obese women is comparable to that of non-obese women. *Acta Anaesth Scand*. 2018;62(6):839-847. doi: 10.1111/aas.13085
12. **Eley VA, Christensen R**, Kumar S, **Callaway L**. A review of blood pressure measurement in obese pregnant women. *International Journal of Obstetric Anesthesia* 2018 (Online) doi: 10.1016/j.ijoa.2018.04.004
13. Kumar CM, **van Zundert A**. 2018. Intraoperative Valsalva maneuver: a narrative review. *Canadian Journal of Anesthesia/Journal Canadien d'Anesthésie*. 2018; 65:578-585
14. Pieters BM, Theunissen M, **van Zundert A**. Macintosh blade videolaryngoscopy combined with rigid Bonfils intubation endoscope offers a suitable alternative for patients with difficult airways. *Anesth Analg*. 2018; 126:988-994
15. Pieters BM, Theunissen M, **van Zundert A**. In Response to Reflections on combining the Bonfils Intubation Endoscope, the Macintosh Videolaryngoscope and the difficult airway. *Anesth Analg* 2018; 127:304-305
16. Reina MA, Gatt SP, Puigdemívol-Sánchez A, de Andrés JA, Prats-Galino A, **van Zundert A**. Comment on arachnoid and dura mater lesions – In Reply. *Reg Anesth Pain Med* 2018; 43:332-334
17. **Reynolds H**, Ullman AJ, **Culwick MD**, Mihala G, Alexandrou E, Schults JA, Rickard CM. Dressings and securement devices to prevent complications for peripheral arterial catheters. *Cochrane Database of Systematic Reviews* 2018, Issue 5. Art. No.: CD013023.DOI: 10.1002/14651858.CD013023
18. **Eley VA, Christensen R**, Kumar S, **Callaway L**. Response to correspondence regarding article: "A review of blood pressure measurement in obese pregnant women". *International Journal of Obstetric Anesthesia* 2018; 35: 64-74
19. **Eley VA, Roberts L, Rickards L**, Blackie A, Zhang C, **Christensen R**, Barrett H. Arm and finger measurements in the third trimester: implications for blood pressure measurement. *Pregnancy Hypertension* 2018; 14:105-109
20. **van Zundert A J, Wyssusek K H**. Epiglottis folding double with supraglottic airway devices. *Br J Anaesth*. 2018; 120:884-885

Journal Articles: (cont):

21. **Van Zundert A, Wyssusek K H, Greenland KB.** (2018) In reference to: is multidisciplinary team care for head and neck cancer worth it? And Does a Multidisciplinary Approach to voice and Swallowing Disorders Improve Therapy Adherence and Outcome? The Laryngoscope 2018. doi:10.1002/lary.27177
22. **Van Zundert A, Wyssusek K H, Greenland KB.** Benefits of recording images during videolaryngoscopy for early detection of oropharyngeal and laryngeal lesions: Implications for “inattentive blindness”. Can J Anesth 2018. April 2. <https://doi.org/10.1007/s12630-018-1116-0>.
23. **Van Zundert A, Wyssusek K H.** Only with an optimal position of the supraglottic airway in situ, valid conclusions can be drawn about oropharyngeal airway pressure. Ind J Anaesth 2018; 62:241-242
24. **Van Zundert A, Wyssusek K.** Postoperative sore throat: the importance of the position of the airway device. Otorhinolaryngol Head Neck Surg 2018; 3:1-3
25. **Wyssusek K H, Keys MT, van Zundert A.** Operation room greening initiatives – the old, the new, and the way forward: a narrative review. Waste Manag Res 2018:1-17
26. **Eley V, Christensen R, Guy L, Dodd B.** Perioperative Blood Pressure Monitoring in Patients With Obesity. Anaesthesia & Analgesia, 2018. doi: 10.1213/ANE.0000000000003647
27. **Eley V A, Roberts L, Rickards L, Blackie A, Zhang C, Christensen R, Barrett H.** Arm and finger measurements in the third trimester: implications for blood pressure measurement. Pregnancy Hypertension 2018 doi: 10.1016/j.preghy.2018.09.002
28. **Goulding G.** The silence of our friends. Anaesthesia and Intensive Care. 2018;46(5)
29. **McLellan EJ, Hade AD, Pelecanos A, Okano O.** Introduction of a mandatory pre-block safety checklist into a regional anaesthesia block room service: a quality improvement project. Anaesthesia and Intensive Care. 2018; 46(5)
30. **Eley VA, Chin A, Tham I, Poh J, Aujla P, Glasgow E, Brown H, Steele K, Webb L, van Zundert A.** Epidural extension failure in obese women is comparable to that of non-obese women. Acta Anaesthesiol Scand. 2018; 62:839-847
31. **Eley VA, Chin A, Sekar R, Donovan T, Krepeska A, Lawrence M, Bell S, Ralfe K, McGrath S, Webb L, Robinson A, van Zundert A, Marquart L.** Increasing body mass index and abdominal subcutaneous fat thickness are associated with increased skin-to-epidural space distance in pregnant women. Int J Obstet Anesth 2018; <https://doi.org/10.1016/j.ijoa.2018.10.005>
32. **Booth AWG, Wyssusek K H, Lee PK, Pelecanos A M, Sturgess D, van Zundert A.** Evaluation of the D-FLECT® deflectable-tip bougie in a manikin with a simulated difficult airway. Br J Anaesth 2018; 121:1180-1182
33. **Wyssusek K H, Keys MT, van Zundert A.** Operating Room Greening Initiatives – the old, the new, and the way forward: a Narrative Review. Waste Management Research 2018; 1-17
34. **Van Zundert A, Wyssusek K.** Postoperative sore throat: the importance of the position of the airway device. Otorhinolaryngol Head Neck Surg 2018; 3:1-3 doi:10.15761/OHNS.1000166
35. **Pieters BM, Theunissen M, van Zundert A.** Reflections on Combining the Bonfils Intubation Endoscope, the Macintosh Videolaryngoscope, and the Difficult Airway – In Response. Anesth Analg. 2018; 127:304-305
36. **Van Zundert A, Wyssusek K H.** Epiglottis folding double with supraglottic airway devices. Br J Anaesth 2018; 120:884-5
37. **Reina MA, Gatt SP, Puigdemívol-Sánchez A, De Andrés JA, Prats-Galino A, van Zundert A.** Comment on Arachnoid and Dura Mater lesions – In Reply. Reg Anesth Pain Med 2018; 43:332-4
38. **Van Zundert A, Wyssusek K H, Greenland KB.** Benefits of recording images during videolaryngoscopy for early detection of oropharyngeal and laryngeal lesions: implications for “inattentive blindness”. Can J Anesth 2018, Apr 2. doi: 10.1007/s12630-018-1116-0
39. **Van Zundert A, Wyssusek K H.** Only with an optimal position of the supraglottic airway in situ, valid conclusions can be drawn about oropharyngeal airway pressure. Ind J Anaesth 2018; 62:241-2
40. **Van Zundert A, Wyssusek K H, Greenland KB.** In reference to: is multidisciplinary team care for head and neck cancer worth it? And Does a multidisciplinary approach to voice and swallowing disorders improve therapy adherence and outcome? Laryngoscope. 2018 Mar 14. doi: 10.1002/lary.27177; Laryngoscope 2018; 128: E348
41. **Van Zundert A, Wyssusek K.** In reference to Review of videolaryngoscopy pharyngeal wall injuries. Laryngoscope. 2018 Feb;128(2): E83
42. **Pieters BM, Theunissen M, van Zundert A.** Macintosh Blade Videolaryngoscopy Combined with Rigid Bonfils Intubation Endoscope Offers a Suitable Alternative for Patients With Difficult Airways. Anesth Analg. 2018; 126:988-994
43. **Kumar CM, van Zundert A.** Intraoperative Valsalva maneuver: a narrative review. Can J Anesth 2018; 65:578-585. doi: 10.1007/s12630-018-1074-6
44. **Van Zundert A, Nethathne G.** Comments on: Kilpatrick SJ. Trauma in Pregnancy: an underappreciated cause of maternal death, Am J Obstet Gynecol 2017;217:499-500. Obstet Anesth Digest 2018; 38:127-8
45. **Gatt D, van Zundert A, Gatt S.** Comments on: A randomized trial of phenylephrine infusion versus bolus dosing for nausea and vomiting during caesarean delivery in obese women, Can J Anesth 2018;65:254-262. Obstet Anesth Digest 2018; 38:224-225
46. **Reina MA, Puigdemívol-Sánchez A, Gatt SP, De Andres J, Prats-Galino A, van Zundert A.** Electronic microscopy of dural and arachnoid disruptions after subarachnoid block. Obstet Anesth Digest 2018; 38:135-136.

Book Chapters:

1. **Van Zundert A.** Operating theatre management in Australia. In: Practical Operating Theatre Management. J.J. Pandit (ed.). 2018, Cambridge University Press, UK, pp. 159-165
2. **Van Zundert A, Sieber T.** Operating theatre management in two European Nations: The Netherlands and Switzerland. In: Practical Operating Theatre Management. J.J. Pandit (ed.). 2018, Cambridge University Press, UK, pp. 151-158.
3. **Gatt S, Sturgess DJ, Samedani L, van Zundert AA.** Chapter 40. Future of advanced hemodynamic monitoring devices in obstetric critical care. In: Monitoring in Anesthesia and Critical Care. Eds. Trikha A & Sing PM. The Health Sciences Publisher, New Delhi, London, 2018.pp. 414-424.

2018 Conference Presentations – Invited Speaker, Oral and Poster

Invited Speaker:

1. **Lee J.** Obstetric Haemorrhage at the Midwifery Challenges. Medicines Management Conference, 2018. Brisbane
2. **Lee J.** Anatomy and Ultrasound for Peripheral Nerves. Braun Anatomy and Ultrasound for Peripheral Nerves Blockade Workshop, 2018. Brisbane
3. **Lee J.** ROTEM® in obstetrics. The ROTEM®/TEG® workshop 2nd Perioperative Patient Blood Management Symposium, 2018. Brisbane
4. **Van Zundert A.** A new flow chart for supraglottic airway devices and Physical differences in supraglottic airway devices, 2018. Indo-Anaesthesia Meeting, Jakarta Indonesia
5. **Van Zundert A.** A new flow chart for insertion of SADs and Challenges in Anaesthesia: the morbidly obese patient, 2018. University of Udayana, Indonesia
6. **Van Zundert A.** Failed airway management – does it still exist? Videolaryngoscopy – a masterpiece in airway management. Vision-guided insertion of SADs, 2018. University of Kuala Lumpur, Malaysia
7. **Van Zundert A.** Spinals in difficult spine anatomy, 2018. Pune Regional Anaesthesia Course, Pune India
8. **Van Zundert A.** Vision-guided insertion of SADs. ASM – ANZCA Annual Meeting, 2018. Sydney
9. **Van Zundert A.** Malpositioning of Supraglottic Airway Devices. World Congress Nurse Anaesthetists, 2018. Budapest
10. **Van Zundert A.** State-of-the Art Lecture on Airway Management. PAN Anaesthesia meeting, Princess Alexandra Hospital Scientific Annual Meeting, 2018. Brisbane
11. **Van Zundert A.** Principles of Anaesthesia and Trauma Care. University of Queensland – Medical Students, 2018. Brisbane
12. **Van Zundert A.** Videolaryngoscopy for all: a masterpiece in airway management. PANANAESTHESIA Meeting, Princess Alexandra Hospital, 2018. Brisbane
13. **Van Zundert A.** Dr. Vaes Award Lecture: Early contributions of Belgian Anaesthetist Dr. Leo Vaes. International Symposium on Automated Low Flow Anesthesia & Visual Drug Display Systems, 2018. Aalst Belgium.
14. **Eley V A.** Obstetric Masterclass and Regional Anaesthesia. Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, Expert Panel, 2018. Sydney
15. **Eley V A.** Managing obstetric emergencies – Focus on maternal cardiac arrest and anaphylaxis. Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, 2018. Sydney
16. **Roets M.** Anaesthetic strategies to reduce blood loss. The 2nd Royal Brisbane & Women's Hospital Perioperative Patient Blood Management Symposium, 2018. Brisbane
17. **Roets M.** Troubleshooting and research on Intraoperative Cell Salvage. The 2nd Royal Brisbane & Women's Hospital Perioperative Patient Blood Management Symposium, 2018. Brisbane
18. **Nethathe G.** Obstetric Critical Care Admissions. ANZICS Safety and Quality Conference, 2018. Melbourne.

Oral Presentations:

1. **Victoria Eley.** Blood pressure measurement in obese pregnant women - can we do better. Australian Society of Anaesthetists National Scientific Congress, 2018. Adelaide
2. **Michelle Roets.** Cell Salvage in Modern Anaesthesia. Australian Society of Anaesthetists National Scientific Congress, 2018. Adelaide
3. **Bright M, Chawla G, Callaway L, Eley V.** Maternal and fetal outcomes in super-obese women. Society of Obstetric Medicine of Australia and New Zealand ASM, 2018
4. **Eley V, Chin A, Sekar R, Donovan T, Krepska A, Bell S, Lawrence M, McGrath S, Webb L, Robinson A, Ralfe K, van Zundert A, Marquart L.** Skin-to-epidural space distance in pregnancy: stronger association with body mass index than abdominal subcutaneous fat thickness. Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, 2018. Sydney
5. **Eley V, Roberts L, Rickards L, Blackie A, Zhang C, Christensen R, Barrett H.** Arm and finger circumference in the third trimester: Implications for blood pressure measurement. Australian and New Zealand College of Anaesthetists Obstetric Anaesthesia Special Interest Group Satellite Meeting, 2018. Sydney
6. **Lee J Eley V, Wyssusek K, Way M, Cohen J, Rowell J, van Zundert A.** Rotational thromboelastometry (ROTEM®) in obstetrics: baseline parameters in uncomplicated and complicated pregnancies. A prospective observational study on elective Caesarean section patients. Australian and New Zealand College of Anaesthetists Annual Scientific Meeting 2018 (Gilbert Brown Prize Presentation)
7. **Roets M, Raniga H, Town C, Wyssusek K.** Intraoperative Cell Salvage: the cost of missed opportunity. 19th Annual Symposium on Patient Blood Management (NATA), Haemostasis and Thrombosis, Best Posters- presentations and awards session, 2018. Lisbon, Portugal
8. **Newington D, Tyson N.** Haemoglobin rise during separation from cardiopulmonary bypass in adults: a prospective observational study. Australian and New Zealand College of Anaesthetists ASM, 2018
9. **Hade A.** Preventing peri-operative central venous catheter (CVC) tip malpositioning. RBWH Healthcare Symposium, 2018. Brisbane
10. **Martin Culwick, Yasmin Endlich, Julie Lee.** The Bowtie Diagram as a method for providing knowledge about critical Incident incidents. ASA NSC 2018 (Adelaide)
11. **Yasmin Endlich, Martin Culwick, Julie Lee.** The Triple A project (Airway incidents in anaesthesia audit – Australia and New Zealand) ASA NSC 2018 (Adelaide)
12. **Yasmin Endlich, Martin Culwick, Julie Lee.** What we have learnt from the webAIRS airway data. ASA NSC 2018 (Adelaide)
13. **Holmes T.** Difficult airway alert notifications – improving communication and patient safety through increased electronic alerts. RBWH Healthcare Symposium, 2018. Brisbane

Oral Presentations: (cont):

14. **Roets M.** Intraoperative cell salvage: the cost of missed opportunity. RBWH Healthcare Symposium, 2018. Brisbane
15. **Gray P.** Pelvic pain management initiatives. Professor Tess Cramond Multidisciplinary Pain centre RBWH Healthcare Symposium, 2018. Brisbane
16. **Wyssusek K.** Interview techniques. Australian Society of Anaesthetists, Part 3 course, 2018. Brisbane.

Poster Presentations:

1. **Wyssusek K, Coonan E, Roets M.** Whose care can we optimise? Incidence of perioperative anaemia in elective general surgical patients who required perioperative blood transfusions. Australian Society of Anaesthetists National Scientific Congress, 2018. Adelaide
2. **Christine Pirrone, Holly Rowell, Rebecca Christensen, Gerard Eames.** Intraoperative systolic blood pressure in traumatic brain injured patients. Australian Society of Anaesthetists National Scientific Congress, 2018. Adelaide
3. **Webb R, Thistlewaite K, Sherlock S, Kramer D, Storey A, Atkinson P, King D, Janes J, Adams V, Abbey J, Cruikshank S, Arno de Jong, Halpin J, Leslie M, Magee R, Munda K, Rooke K, Woodhouse B, Bismire R, Smith P, Dagge S, Irwin D.** RBWH Hyperbaric Medicine Service Turns Three! Gilbert Troup Prize Session, Australian Society of Anaesthetists National Scientific Congress, 2018. Adelaide
4. **Gunjan Chawla, Louisa Kippin, Usha Gurunathan.** Preoperative fasting- assessing compliance with guidelines and patient understanding at a tertiary referral centre. Australian Society of Anaesthetists National Scientific Congress, 2018. Adelaide
5. **Eley VA, Roberts L, Rickards L, Blackie A, Zhang C, Christensen R, Barrett H.** Arm and finger circumference in the third trimester: implications for blood pressure measurement. Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, 2018. Sydney
6. **Eley VA, Chin A, Sekar R, Donovan T, Krepska A, Bell S, Lawrence M, McGrath S, Webb L, Robinson A, Ralfe K, van Zundert A, Marquart L.** Skin-to-epidural space distance in pregnancy: stronger association with body mass index than abdominal subcutaneous fat thickness. Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, 2018. Sydney
7. **Eley VA, Roberts L, Rickards L, Blackie A, Zhang C, Christensen R, Barrett H.** Arm and finger circumference in the third trimester: implications for blood pressure measurement. Australian and New Zealand College of Anaesthetists Obstetric Anaesthesia Special Interest Group Satellite Meeting, 2018. Sydney
8. **Epstein C, Forbes J, Futter C, Hosegood I, Brown R, Preswick D, Smith M, Professor Andre van Zundert.** Is there a doctor on board? Yes – YOU. Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, 2018. Sydney
9. **Forbes J, Eley VA.** Clinical audit of the uptake of programmed intermittent bolus as a delivery technique for labour epidurals. Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, 2018. Sydney
10. **Fawkes W, Swaine V, Cullingham D, Prasad A, Hohnke C, Streatfeild A, Stapleton R, Long Y, Elliott B, Bushell T, Mithi S, Wyssusek K, Roets M.** Intraoperative cell salvage: Celebrating 25 years at the RBWH! 2nd annual Patient Blood Management Symposium, 2018. Brisbane
11. **Guy L, Pincus J, Wyssusek K.** Audit of postoperative critical care admissions after bariatric surgery. Australian Society of Anaesthetists National Scientific Congress ASM, 2018. Adelaide
12. **Reynolds H, Gowardman J.** Implementing a new procedure: insertion and maintenance care of intra-arterial catheters using bundled intervention. IVNNZ Annual Scientific Meeting, 2018
13. **Lee J, Eley V, Wyssusek K, Way M, Cohen J, Rowell J, van Zundert A.** Rotational thromboelastometry (ROTEM®) in obstetrics: baseline parameters in uncomplicated and complicated pregnancies. A prospective observational study on elective Caesarean section patients. Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, 2018 (Gilbert Brown Prize Presentation). Sydney
14. **Lee J, Eley V, Wyssusek K, Way M, Cohen J, Rowell J, Kimble R, van Zundert A.** Rotational thromboelastometry (ROTEM®) in obstetrics: baseline parameters in uncomplicated and complicated pregnancies. A prospective observational study on parturients. Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, 2018 (Open Poster Prize Presentation). Sydney
15. **Nethathe G, Bright M, Krepska A, Eley VA.** Obstetric critical care admissions at the Royal Brisbane and Women's Hospital. Society of Obstetric Medicine of Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, 2018. Sydney
16. **Pietzsch A.** Does ondansetron prophylaxis reduce intrathecal opioid induced itch post caesarean section? Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, 2018. Sydney
17. **Reynolds H, Newman F, Meeusen V, Lloyd J, Jorgensen K, Seib E, Murray M, Foran P.** Australian College of Perianaesthesia Nurses (ACPAN): Our Professional Practice Standards Journey. ACORN International Conference, 2018. Adelaide
18. **Roets M, Raniga H, Town C, Wyssusek K.** Intraoperative Cell Salvage: the cost of missed opportunity. Best Posters- presentations and awards session, 19th Annual Symposium on Patient Blood Management (NATA), Haemostasis and Thrombosis, 2018. Lisbon, Portugal
19. **Tognolini A, Raniga H, Roets M, Wyssusek K.** Experiences, conceptions and barriers to the use of intraoperative cell salvage in a large tertiary teaching hospital. 19th Annual Symposium on Patient Blood Management (NATA), Haemostasis and Thrombosis, 2018. Lisbon, Portugal
20. **Wyssusek K, Roets M, Raniga H, Town C.** Intra-operative transfusion – pre-operative illusion. 19th Annual Symposium on Patient Blood Management (NATA), Haemostasis and Thrombosis, 2018. Lisbon, Portugal
21. **Tognolini A, Raniga H, Roets M, Wyssusek K.** The use of intraoperative cell salvage during obstetric anaesthesia at the Royal Brisbane and Women's Hospital: an interdisciplinary survey. 2nd annual Patient Blood Management Symposium, 2018. Brisbane
22. **Tognolini A, Raniga H, Roets M, Wyssusek K.** Experiences, conceptions and barriers to the use of intraoperative cell salvage in a large tertiary teaching hospital. Australian Society of Anaesthetists National Scientific Congress ASM conference, International Convention Centre, 2018. Sydney
23. **Bright M, Chawla, G, Eley, V.** Anaesthetic and peripartum care outcomes in women with extreme obesity. RBWH Healthcare Symposium, 2018. Brisbane
24. **Chawla, G, Peters, N, Messer, G.** Perioperative Normothermia in Major Vascular Surgery. RBWH Healthcare Symposium, 2018. Brisbane

Poster Presentations (cont):

25. **Eley, V, Chin, A, Sekar, R, Donovan T, Krepska, A, Bell, S, Lawrence, M, McGrath, S, Webb, L, Robinson, A, Marquart, L.** Increased maternal abdominal subcutaneous fat thickness and body mass index are associated with increased caesarean delivery: a prospective cohort study. RBWH Healthcare Symposium, 2018. Brisbane
26. **Eley, V, Chin, A, Sekar, R, Donovan T, Krepska, A, Bell, S, Lawrence, M, McGrath, S, Webb, L, Robinson, A, Ralfe, K, Van Zundert, A, Marquart, L.** Skin-to-epidural space distance in pregnancy: stronger associational with body mass index than abdominal subcutaneous fat thickness. RBWH Healthcare Symposium, 2018. Brisbane
27. **Eley, V, Roberts, L, Rickards, L, Blackie, A, Zhang, C, Christensen, R, Barrett, H.** Arm and finger circumference in the third trimester: implications for blood pressure measurements. RBWH Healthcare Symposium, 2018. Brisbane
28. **Lee, J, Eley, V, Wyssusek, K, Way, M, Cohen, J, Rowell, J, Kimble, R, Van Zundert, A.** Rotational thromboelastometry (ROTEM®) in obstetrics: Baseline parameters in uncomplicated and complicated pregnancies: a prospective observational study on parturients. RBWH Healthcare Symposium, 2018. Brisbane
29. **Lee, J, Eley, V, Wyssusek, K, Way, M, Cohen, J, Rowell, J, Kimble, R, Van Zundert, A.** Rotational thromboelastometry (ROTEM®) in obstetrics: Baseline parameters in uncomplicated and complicated pregnancies. A prospective observational study on elective caesarean section patients. RBWH Healthcare Symposium, 2018. Brisbane
30. **Nethathe, G, Bright, M, Krepska, A, Eley, V.** Obstetric Critical Care Admissions at the Royal Brisbane and Women's Hospital. RBWH Healthcare Symposium, 2018. Brisbane
31. **Ryan, R, Jackson, D, Hopkins, G, Eley, V, Christensen, R, Parker, S, Van Zundert, A, Wallis, S, Lipman, J, Roberts, J.** A Pharmacokinetic Model Describing Total and Unbound Cefazolin Concentrations Following a Single Prophylactic Two Gram Dose in Patients Undergoing Elective Bariatric. RBWH Healthcare Symposium, 2018. Brisbane
32. **Town C, Dalgleish L, Ferguson E, Brown J.** Post-operative Pain Management for Burns patients who require Split Skin Grafting for Upper Limb Burns <15% TBSA: a two year retrospective Audit at the RBWH. RBWH Healthcare Symposium, 2018. Brisbane
33. **Nethathe G, Bright M, Krepska A, Eley VA.** Obstetric critical care admissions at the Royal Brisbane and Women's Hospital. Society of Obstetric Medicine of Australian and New Zealand College of Anaesthetists RBWH Healthcare Symposium, 2018. Brisbane
34. **Nethathe G, Bright M, Krepska A, Eley VA.** Obstetric critical care admissions at the Royal Brisbane and Women's Hospital. Society of Obstetric Medicine of Australian and New Zealand College of Anaesthetists Pullman Cairns International, 2018. Cairns
35. **Nethathe G.** Frailty in per-operative patients in three South African Academic Hospitals. Faculty of Medicine, University of the Witwatersrand Research Day, 2018.

Other Communications and Outputs:

Eley V. Opening Plenary Session: Australian and New Zealand College of Anaesthetists Obstetric Anaesthesia Special Interest Group Satellite Meeting. Session Chair: Obstetric Special Interest Group Concurrent Session: Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, 2018. Sydney



Department of Ears, Nose and Throat

- Completed 2 trials under 2018. Dupilumab, an IL-4 and IL-13 antagonist, in patients with Nasal Polyps and a pilot trial on a drug eluting nasal stent in chronic sinusitis
- The project on characterising the microbiome of otitis media has been concluded. The research has prompted a clinical trial where the application was successful and our research group was awarded \$374 000
- Treating chronic sinusitis with a nasal probiotic spray has been approved by HREC
- Two clinical trials in Hereditary Haemorrhagic Teleangiectasia has been developed and are up for ethics application
- Our clinical evaluation on using outpatient radiofrequency reduction of inferior turbinates. The Royal Brisbane and Women's Hospital New Technology Funding and Evaluation Program has calculated the cost of RFA of inferior turbinates at the ENT outpatients to AUD 184 per patient compared to the surgical procedure where the cost has been estimated at AUD 4500 to 6000. Of our cohort of 189 patients only 6 were referred to surgery of the turbinates under general anaesthesia.

Supervised Post-Graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.) University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Dr Andrea Coleman	PhD	The microbiome of otitis media and development of a probiotic to prevent otitis media in Australian Indigenous children	Prof Anders Cervin , Dr Seweryn Bialasiewicz, Dr Eva Grahn-Hakansson
Sinead Ahern		Cytokines in chronic rhinosinusitis	Prof Anders Cervin
Dr Sarah Chaudry		Outcomes of radiofrequency reduction of inferior turbinates in an outpatient setting	Prof Anders Cervin
Dr Anders Martensson	PhD	Microbiome Therapy of Chronic Rhinosinusitis	Prof Anders Cervin , Prof Lennart Greiff

2018 Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/Department Lead Researchers	Collaborative Researchers	Research Project Title
Prof Anders Cervin	Claire Hopkins (Guys Hospital, London)	Core Outcome Dataset in chronic rhinosinusitis
Prof Anders Cervin	Dr Anders Martensson, Lund University Sweden	Microbiome transplant in Chronic Rhinosinusitis
Prof Anders Cervin	Rhinology Fellow	iPro8 A nasal Probiotic spray for purulent chronic rhinosinusitis
Dr James Earnshaw	Prof Anders Cervin	Avastin nasal spray in Hereditary Haemorrhagic Teleangiectasia
Dr James Earnshaw	Prof Anders Cervin	Propranolol in Hereditary Haemorrhagic Teleangiectasia

2018 Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Lead Researchers	RBWH Researchers	Research Project Title
Christine Cong Guo (QUT)	Prof Anders Cervin	Developing early biomarkers for Alzheimer's disease using olfactory mucosa
Dr Robyn Marsh, Menzies Darwin, Dr Rachel Lappan, Telethon Inst. Perth	Prof Anders Cervin	The Australian Microbiota in Otitis Media Network
Prof Phil Hugenholtz, Dr Seweryn Bialasiewicz	Prof Anders Cervin	Microbiome in Otitis Media and Metagenomics of the upper airway microbiome
Kirsten Spann (UQ)	Prof Anders Cervin	Defects in antiviral defence in the upper airways of children susceptible to ear infections and/or lower respiratory tract infections
Dr Annika Antonsson QIMR	Prof Anders Cervin	Natural history of oral HPV infection – what risk factors are associated with persistent oral HPV infections?

2018 Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups/ Departments	Project Title	Granting Body	Amount in 2018	Total Amount (years)
Prof Anders Cervin, Dr Andrea Coleman	Dep of ENT	Probiotics to prevent otitis media in Australian Indigenous Infants	The Garnett Passe & Rodney Williams Memorial Foundation	\$124,755.00	\$374,263 (3 years)
Dr Annika Antonsson	Prof Anders Cervin	Natural history of oral HPV infection – what risk factors are associated with persistent oral HPV infections?	Australian Infectious Disease Research Centre (AID)	\$50,000	

2018 Research Publications

Journal Articles:

1. Coleman A, Wood A, Marsh RL, **Cervin A**. The unsolved problem of otitis media in indigenous populations: a systematic review of upper respiratory and middle ear microbiology in indigenous children with otitis media. *Microbiome*; 2018 Nov 6;6(1):1–15
2. Coleman A, **Cervin A**. Probiotics in the treatment of otitis media. The past, the present and the future. *Elsevier*; 2018 Nov 1; 116:135–40
3. Tsang CLN, Nguyen T, Sivesind T, **Cervin A**. Long-term patient-related outcome measures of septoplasty: a systematic review. 2018 May;275(5):1039–48
4. T L, Liu T, Cooper T, of ACAJ, 2018. Disease burden and productivity cost of chronic rhinosinusitis patients referred to a tertiary centre in Australia. *Theajocom* 2018 Jan 25; 1:5–5
5. **Cervin A**. The Potential for Topical Probiotic Treatment of Chronic Rhinosinusitis, a Personal Perspective. 2018 Jan 12; 7:151r–6
6. Hopkins C, **Cervin A**, Hettige R, Soni-Jaiswal A, Lakhani R, Douglas R, Harvey R, Leunig A, et al. **CH**ronic **R**hinosinusitis **O**utcome **ME**asures (CHROME), developing a core outcome set for trials of interventions in chronic rhinosinusitis. *Rhinology* 2018 Jan 7.

2018 Conference Presentations – Invited Speaker, Oral and Poster

Invited Speaker:

1. Invited; ASOHSN Perth 2018, Probiotic treatment of upper airway disease. **Cervin**
2. Invited; European Rhinologic Society London 2018, Safe sinus surgery. **Cervin**
3. Invited; 4th Microbiome R&D & Business Collaboration Congress & 3rd Probiotics Congress, Singapore. Topical Probiotics in airway disease. **Cervin**
4. Invited; Frontiers Meeting, Cairns. Treating sinusitis with bacteria **Cervin**.

Department of General Surgery – Unit 2 Hepato-Biliary / Pancreatic

2018 Research Publications

Journal Articles:

1. Miller GC, Campbell CM, Manoharan B, **Bryant R, Cavallucci D, O'Rourke N**, et al. Subclassification of hepatocellular adenomas: Practical considerations in the implementation of the Bordeaux criteria. *Pathology*. 2018;50: 593–599
2. **Patel B, Leung U, Lee J, Bryant R, O'Rourke N, Cavallucci D**. Laparoscopic pancreaticoduodenectomy in Brisbane, Australia: an initial experience. *ANZ J Surg*. 2018;88: E440–E444
3. Cho, J. Y., Han, H.-S., Wakabayashi, G., Soubrane, O., Geller, D., **O'Rourke, N.**, Cherqui, D. (2018). Practical guidelines for performing laparoscopic liver resection based on the second international laparoscopic liver consensus conference. *Surgical Oncology*, 27(1), A5–A9. <https://doi.org/10.1016/j.suronc.2017.12.003>
4. **Bell-Allen, N., O'Rourke, H., Hong, L., & O'Rourke, N.** (2017). Laparoscopic ventral hernia repair using only 5-mm ports. *ANZ Journal of Surgery*, 88(7–8), 718–722. <https://doi.org/10.1111/ans.13985>
5. **James Carroll, Michael Kwok, Bhavik Patel and George Hopkins**, Revision gastric bypass after laparoscopic adjustable gastric band: a ten-year experience at a public teaching hospital, *ANZ Journal of Surgery*. 88 (2018) E361–E365.

Book Chapter / Letters:

1. **O'Rourke NA, van Rensburg AJ**. Post Cholecystectomy Symptoms. In: Cox MR, Eslick GD, Padbury R, editors. *The Management of Gallstone Disease: A Practical and Evidence-Based Approach*. Cham: Springer International Publishing; 2018. pp. 205–219.

2018 Conference Presentations – Invited Speaker, Oral and Poster

Invited Speaker:

1. **Cavallucci David**. Robotic resection of 2cm adenocarcinoma in the pancreatic head. ANZHPBA Annual Scientific Meeting, Wellington, New Zealand 2018
2. **O'Rourke Nicholas**. Laparoscopic resection of solitary colorectal liver metastasis Segment 7. ANZHPBA Annual Scientific Meeting, Wellington, New Zealand 2018.

Oral Presentations:

1. **Bryant, R., Cavallucci, D., & O'Rourke, N.** (2018). The “Dorsal” approach to laparoscopic major hepatectomy enables expanded indications for laparoscopic liver resection. *HPB*, 20, S267
2. **Kermond, A., O'Rourke, N., Cavallucci, D., & Van Rensburg, A. J.** (2018a). Biliary angina: the nature of biliary pain reviewed. *HPB*, 20, S719
3. **Kermond, A., O'Rourke, N., Cavallucci, D., & Van Rensburg, A. J.** (2018b). Cirrhosis post selective internal radiation therapy-risk factors and prevention. *HPB*, 20, S346.

Department of General Surgery – Unit 3 Colorectal

The Brisbane Colorectal Research Unit (CRU) was established in 2016, to support and facilitate colorectal research at the RBWH and surrounding hospitals. The unit is a closely aligned association of interested colorectal surgeons and specialists, aiming to deliver high quality research and ultimately provide better outcomes for patients. In addition, the unit focuses on the development and dissemination of minimally invasive techniques for the treatment of colorectal disorders.

The CRU has secured funding to appoint a Research Coordinator to facilitate and centralise the colorectal research activity at RBWH. To date, the CRU represents over 30 active research projects, networks and collaborations, established both locally, nationally and internationally. Our research includes retrospective investigations of patient outcomes following surgery, observational studies assessing best surgical practice, multicentre national and international collaborative projects and early phase clinical trials.

The CRU supports three higher degree scholars, contributing to important research in the following areas; “Theranostics for metastatic colorectal cancer”, “Identification of biomarkers for early detection of anastomotic leaks” and “Investigation of the nutritional status and care of older patients on two general surgical wards”. In addition, the CRU has provided the opportunity for junior personnel to experience colorectal research during medical training by offering supervision and exposure to research during Year 4 elective blocks. This is a great opportunity for junior researchers to be introduced to research methodology and participate in active projects along-side experience researchers.

The CRU forward-looking research agenda continues to develop high quality internationally recognised research, as we reflect and consider how best to direct our resources.

Supervised Post-Graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.) University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Angela Byrnes	Ph.D, UQ (2015-2018)	Investigating the nutritional status and care of older (≥ 65 years) patients on two general surgical wards: a multiphase, action research study	David Clark, Adrienne Young, Alison Mudge, Marilyn Banks, Judy Bauer
Tahleesa Cuda	Ph.D, UQ (2018 – current)	Theranostics for metastatic colorectal cancer	Andrew Stevenson, David Clark, Paul Thomas, Damian Petersen, Andrew Riddell, John Hooper, Simon Puttick

2018 Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions

Name	Type of Fellowship	Research Program	University (years)
Aleksandra Edmundson	Honorary Fellow	Colorectal Research Unit (CRU)	The University of Queensland – Dept. Surgery (2016 – current)
Aleksandra Edmundson		Research coordinator for Colorectal Research Unit (CRU)	(2016 – current)

2018 Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/ Department Lead Researchers	Collaborative Researchers	Research Project Title
Craig Harris, David Taylor (CRU), Paul Thomas (HIRF)	Frank Frizells, Andrew McCombie	10-Ten Study: quality of life after surgery for recurrent rectal cancer
Andrew Stevensen, David Clark (CRU)	Tahleesa Cuda, Andrew Riddell, Simon Puttick, John Hooper	Theranostics for metastatic colorectal cancer
David Clark (CRU)	Andrew Stevensen, Damien Petersen, Andrea Warwick, Monica Ding, John Lumley,	Total colectomy for constipation
Andrew Stevensen (CRU)	David Clark	ADIPOSE Study
David Clark (CRU)	Carina Chow, Damien Petersen, John Lumley, Joseph Kong, Nicholas Lutton	Drain fluid amylase as a sensitive biomarker for anastomotic leak following ileal pouch surgery, a multi-centre study

2018 Current RBWH Research Group / Department Led Research Activity (cont)

RBWH Research Group/ Department Lead Researchers	Collaborative Researchers	Research Project Title
David Clark (CRU)	Andrew Riddell, Ehsan Panahi, Julie Moore, Shoni Philpot	Management of malignant polyps in QLD
David Clark, Damien Petersen, Andrew Stevenson (CRU)	John Lumley, Tony McGiffin	Long term consequences of anastomotic leak following laparoscopic restorative surgery with low pelvic colorectal anastomosis
David Clark (CRU),	David James , Tom Snow, Edward Yeoh, Jit Pratrap, Stephen Allison	Gastrografin rectal flushes for the evaluation of anastomotic leak
Andrew Stevenson (CRU), Matthew Burge, Paul Thomas	David Clark, Craig Harris, Carina Chow, Damien Petersen, David Taylor	A pilot study of CXCR-PET scanning in operable rectal cancer
David Clark (CRU)	Joanna Yu, David Sidhom	Functional outcomes of anastomotic leak after restorative proctectomy and ileal pouch surgery
David Clark (CRU), Graham Radford-Smith	Anton Lord, Lisa Simms	Pre-diagnostic signature for colorectal
David Clark (CRU), Bree Stephensen	NA	Transanal tubes, pelvic drains and defunctioning ileostomies: a surgeons' preference survey

2018 Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Lead Researchers	RBWH Researchers	Research Project Title
Cherry Koh, Michael Solomon	Craig Harris, David Taylor, David Clark	Localised recurrent rectal cancer QoL study (Phase-III)
Doug Roche, James Davidson, Neal Martin	David Clark	Petrospective review of surgical outcomes for patients managed in regional area pre- and post establishment of an IBD clinic
Stephen Smith	Bree Stephenson, David Clark, David Westwood	CRP validation study in predicting anastomotic leak

2018 Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups/ Departments	Project Title	Granting Body	Amount in 2018	Total Amount (years)
David Clark	Colorectal Research Unit (CRU)	Research Fund	Johnson & Johnson (Australia)	\$45,000	\$180,000 (2015-2018)
David Clark	Colorectal Research Unit (CRU)	Research Fund	Olympus (Australia)	\$30,000	\$120,000 (2015-2018)
David Clark, Graham Radford-Smith , Lisa Simms, Anton Lord	Colorectal Research Unit/ Surgery/ Gastroenterology	Pre-diagnostic signature for colorectal cancer: Defining a pre-diagnostic biomarker signature	RBWH Foundation	\$20,000	\$20,000 (2018)

2018 Research Publications

Journal Articles:

- Clark, D. A.**, Cuda, T., Riddell, A., **Radford-Smith, G.**, & Solomon, M. Drain fluid amylase as a sensitive biomarker for the early detection of anastomotic leakage in ileal pouch surgery. (2018). Colorectal Disease: The Official Journal of the Association of Coloproctology of Great Britain and Ireland, doi:10.1111/codi.14536
- Campbell B, Reid A, Clark D**, Harvey J. A case study of ileal metaplasia and neoplasia in a patient with an ileal-rectal anastomosis. J Coloproctology Dec 2017Volume 38, Issue 2, April–June 2018, Pages 151-153
- Cuda T, Riddell A, **Clark D**. Giant faecolith as an unusual cause of small bowel obstruction: a case report. International Journal of Case Reports and Images, Vol. 9, 2018. ISSN: 0976-3198. 2018
- Byrnes A, Young A, Mudge A, Banks M, Clark D**, and Bauer J. Prospective application of an implementation framework to improve postoperative nutrition care processes: Evaluation of a mixed methods implementation study. Nutrition and Dietetics 2018; 75: 353–362.
- Adamina M, Buchs NC, Penna M, Hompes R; St.Gallen Colorectal Consensus Expert Group (inc. **Stevenson ARL**). St.Gallen consensus on safe implementation of transanal total mesorectal excision. Surg Endosc. 2018 Mar;32(3):1091-1103

Journal Articles: (cont):

6. Dickfos M, Tan SBM, **Stevenson ARL, Harris CA, Esler R, Peters M, Taylor DG**. Development of a pelvic exenteration service at a tertiary referral centre. *ANZ J Surg*. 2018 Mar 6. doi: 10.1111/ans.14427. [Epub ahead of print]
7. Abbott SC, **Stevenson ARL, Bell SW, Clark D**, Merrie A, Hayes J, Ganesh S, Heriot AG, Warriar SK. An assessment of an Australasian pathway for the introduction of transanal total mesorectal excision (taTME). *Colorectal Dis*. 2018 Jan;20(1): O1-O6
8. Penna, Marta; Hompes, Roel; Arnold, Steve; Wynn, Greg; Austin, Ralph, FRCS; Warusavitarne, Janindra; Moran, Brendan; Hanna, George B; Mortensen, Neil J; Tekkis, Paris P; (on behalf of the International TaTME Registry Collaborative (inc. **Stevenson ARL**). Incidence and Risk Factors for Anastomotic Failure in 1594 Patients Treated by Transanal Total Mesorectal Excision: results from the International TaTME Registry. *Annals of Surgery*: January 5, 2018 – Volume Publish Ahead of Print – Issue
9. **Hamilton AER, Warren C and Stevenson ARL**. Neurovascular-Sparing during Anterior Resections for Diverticular Disease: the Century-long Debate. *Col Diseases* – accepted for publication 7/2018 (*CDI-00506-2018*)
10. Sakata S, Klein K, **Stevenson ARL**, Hewett DG. Measurement Bias of Polyp Size at Colonoscopy. *Dis Colon Rectum*. 2017 Sep;60(9):987-991
11. Sakata S, McIvor F, Klen K, **Stevenson AR**, Hewett DG. Measurement of Polyp Size at Colonoscopy: a Proof-of-Concept Simulation Study to Address Technology Bias *Gut*. 2018 Feb;67(2):206-208
12. **Westwood, D. A., Cuda, T. J., Hamilton, A. E. R., Clark, D., & Stevenson, A. R. L.** Trans-anal total mesorectal excision for rectal cancer: State of the art. *Techniques in Coloproctology*, (2018). 22(9), 649-655
13. Hamilton AER, **Stevenson ARL, Warren CD, Westwood DA**. Colorectal surgeons should be open to modern surgical technologies for challenging cases. *ANZ J Surg*. 2018 Sep;88(9):831-835.

Book Chapters / Letters:

1. **ARL Stevenson**. Zen and the Art of the Purse-string: In-Transanal Minimally Invasive Surgery (TAMIS) & Transanal Total Mesorectal Excision (taTME) – Ed. S. Atallah (in press)
2. D'Hoore A and **Stevenson ARL**. Endometriosis: In-Keighley & Williams' Surgery of the Anus, Rectum and Colon, Fourth Edition (2018).

Conference Presentations – Invited Speaker, Oral and Poster

Oral Presentations:

1. **Clark D**: GESAQ Noosa “Timing is Everything: Colectomy in Acute and Chronic Colitis” July 2018. QLD, Australia
2. **Clark D**: AGW. “Optimizing the IBD patient for surgery”. September 2018. Brisbane, Australia
3. **Clark D**: CSSANZ Spring Meeting. “Omitting Loop Ileostomy in ULAR and Ileo-anal Pouch Surgery”. October 2018. Fremantle, Australia
4. **Stevenson ARL**: Global Perspective TaTME. American Society of Colon & Rectal Surgeons. Annual Scientific Meeting, May 2018. Nashville, Tennessee, USA
5. **Stevenson ARL**: Top Ten Tips for Ventral Rectopexy – Biologics. American Society of Colon & Rectal Surgeons Annual Scientific Meeting, May 2018 Nashville, Tennessee, USA
6. **Stevenson ARL**: Expanding MIS Capabilities with Robotic Assistance – Robotic Exenteration, TaTME and TAMIS. Sydney Robotics Summit. 23 June 2018. Sydney Australia
7. **Stevenson ARL**: How I Do: Robotic Ultra Low Anterior Resection. Sydney Robotics Summit. 23 June 2018. Sydney Australia
8. **Stevenson ARL**: Hot Topics in Surgical Robotics Today and Tomorrow – Panel Discussion. Sydney Robotics Summit. 23 June 2018. Sydney Australia
9. **Stevenson ARL**: Fluorescence Imaging via ICG Injection and the Insertion of Lighted Stents. Advanced Imaging in General Surgery 27 March 2018. Brisbane Australia Brisbane
10. **Stevenson ARL**: Robotic Ventral Rectopexy da Vinci Colorectal Workshop. Peter MacCallum Cancer Centre, 2-3 March 2018. Melbourne Australia.

Poster Presentations:

1. **David Clark**: Clinical factors associated with chronic inflammatory outcomes following ileal pouch-anal anastomosis for ulcerative colitis. AGW Brisbane 2018
2. David Theile, **David Clark, David Taylor**, John Hansen, Mark Doudle, Nicholas Lutton, Pieter Prinsloo, John Harrington, Nathan Dunn, Neal Rawson: The safety and efficacy of colorectal cancer surgery in Queensland. Clinical Oncology Society of Australia (COSA) Perth 2018
3. David Theile, **David Clark, David Taylor**, John Hansen, Mark Doudle, Nicholas Lutton, Pieter Prinsloo, John Harrington, Nathan Dunn, Neal Rawson: Quality of care and quality of life for Queensland colorectal cancer patients. Clinical Oncology Society of Australia (COSA) Perth 2018.

Other Communications and Outputs:

Dr Sarah Abbott, **A/Prof Andrew RL Stevenson, Mr Stephen W Bell, A/Prof David Clark**, Mr Arend Merrie, Mr Julian Hayes, Mr Shanthan Ganesh, Mr Satish K Warriar. Assessment of a formalised structured pathway for training and accreditation for transanal total mesorectal excision (taTME).

Department of General Surgery – Unit 5 Acute Surgical Unit (ASU)

2018 Research Publications

Journal Articles

1. **Lucas Wheatley, Matthew Lonne, James Bennett, Bhavik Patel** Actinomycosis of the Appendix, Arch Surg Clin Res. 2018; 2: 029-030.



Department of Ophthalmology

2018 Research Awards and Achievements

Recipient	Award	Event
Newman, A., Cranstoun, M., Chow, S., Sullivan, T., 2018	Best Surgical Video and Best Overall Video	2018 RANZCO National Conference
Cranstoun, M., Schlect, D., Henden, A., Brennan, S., Pratt, G., Sullivan, T., 2018	Dermot Roden Prize for Best Oculoplastics Paper Presented.	2018 RANZCO National Conference

2018 Research Publications

Journal Articles:

1. Optic disc pit maculopathy. Fraenkel A, **Lee LR**, Todd B. Clin Exp Optom. 2018 May;101(3):422-423. doi: 10.1111/cxo.12611. Epub 2017 Oct 9. No abstract available. PMID: 28994138
2. Recurrent intraocular haemorrhage due to pars plana Baerveldt glaucoma drainage device. Fraenkel A, **Lee LR**, Lee GA. Clin Exp Ophthalmol. 2018 Jan;46(1):90-92. doi: 10.1111/ceo.13004. Epub 2017 Jun 23. No abstract available. PMID: 28603883.

2018 Conference Presentations – Invited Speaker, Oral and Poster

Oral Presentations:

1. **Cranstoun, M.**, Schlect, D., Henden, A., Brennan, S., Pratt, G., **Sullivan, T.**, 2018, Low-dose Radiotherapy in the treatment of Ocular Anaplastic Lymphoma, An Australian Cohort. RANZCO 2018
2. **Newman, A.**, **Cranstoun, M.**, **Chow, S.**, **Sullivan, T.**, 2018. Video: Management of Post-Operative Orbital Emphysema. RANZCO 2018.

Poster Presentations:

1. **Park, J.** Central acute middle maculopathy following routine vitrectomy for vitreomacular traction syndrome and epiretinal membrane. APVRS Meeting in Seoul 14th-16th December 2018.

Department of Orthopaedics

The RBWH Department of Orthopaedic Surgery has a long tradition of innovation, clinical excellence, and high-quality research. Local, national, and international collaboration continues to be the hallmark of our research initiatives, fostering relationships that generate synergies. Once again, more than 20 formal publications from our Department appeared in 2018, marking the fourth consecutive year this milestone has been reached.

We continue to have a very active interest in 3D modelling and printing, and have emerged over the past few years as a global leader in this field within orthopaedic surgery. We expect further development in this area with the highly anticipated opening of the Herston Biofabrication Institute, and are looking forward to working there together with our academic and industry partners.

The key achievement for the year 2018 was that more than 10 individuals from within our Department published at least one article, and more people are involved in active research projects than ever before. This is encouraging, and suggests a culture of clinical research and investigation now imbues the Department. The FAITH study group had another paper published, as part of an important international effort to investigate alternatives for fixation of displaced femoral neck fractures. Dr Brett Halliday and co-authors published their results following a 20-year single-surgeon cohort of joint arthroplasty performed in patients with haemophilia, an impressive series. Finally, preliminary results began to be realised regarding our extensive investigations into the biology of the Masquelet induced membrane, used to reconstruct post-traumatic long bone defects. This will be by far the largest series of human specimens that has ever been compiled and evaluated using the most sophisticated techniques available, with several publications expected to debut in the coming year.

Supervised Post-Graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.) University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Bilal Zahoor	PhD – University of Queensland	A cohort of pelvic fractures at a single Australian tertiary referral center 2010-2016: epidemiology of pelvic fractures and bio-markers associated with mortality in extra-peritoneal pelvic packing for haemorrhagic pelvic fractures	Kevin Tetsworth , Daryl Wall
Min Tri Phan	PhD – QUT	Femoral morphology variations and relevant implant fit in relation to peritrochanteric and distal femur fractures	Kevin Tetsworth , Beat Schmutz (QUT)
Antony Rapisarda	PhD – UNSW	Identification of serum biomarkers for the diagnosis of orthopaedic infections and sepsis	Kevin Tetsworth , Jeff Lipman, Ross Crawford (TPCH)
Naomi Paxton	PhD – QUT	The future of clinical biofabrication: creating patient-specific melt-electrospun scaffolds for bone regeneration	Kevin Tetsworth , Mia Woodruff (QUT)
Chris Conyard	PhD – University of Queensland	Knee pain after IM nailing of tibial shaft fractures: randomised controlled trial of infra-patellar vs supra-patellar insertion techniques	Kevin Tetsworth , Ross Crawford (TPCH)

2018 Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions

Name	Type of Fellowship	Research Program	University (years)
Nick Green	Orthopaedic 3D Medical Modeller	3D Modelling and Printing in Orthopaedic Surgery	MNHHS (2015 – current)

2018 Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/Department Lead Researchers	Collaborative Researchers	Research Project Title
Richard Hanly	Luca Daniele, James Powell	Prospective case-controlled series using ankle arthroscopy in trauma
Andrew Mayo	Luca Daniele	The effect of scaphoid reduction on carpal kinematics in scaphoid nonunion

2018 Current RBWH Research Group / Department Led Research Activity (cont)

RBWH Research Group/Department Lead Researchers	Collaborative Researchers	Research Project Title
Paul McEniery	Luca Daniele	Assessment of biomechanical stability and kinematics using a novel anatomic distal radio-ulnar joint reconstruction
Jerry van de Pol	John Kinyanjui, Marita Prior , Macy Lu	Randomised controlled trial comparing short vs long tunnels for anterior cruciate ligament knee reconstructions: Clinical and radiographic characteristics
Kevin Tetsworth, Jerry van de Pol	Steven Kent	Validation of a classification scheme for malunions and nonunions of the proximal tibia and tibial plateau
Kevin Tetsworth, Jerry van de Pol	Tom Crookes, Marita Prior	Clinical and radiographic outcomes after internal fixation of glenoid neck fractures through a modification of the modified Judet approach
Kevin Tetsworth, Jerry van de Pol, A/Prof Michael Doran (QUT)	John Anderson	A phase 1 study to evaluate the safety and feasibility of mesenchymal stromal cell therapy in participants with non-unions of tibia fractures
Kevin Tetsworth, Jerry van de Pol	Timothy Wong, Vaida Glatt, (Univ of Texas, San Antonio)	Clinical outcomes in a clinical series of massive femoral bone defects using custom 3D printed titanium cages placed into a Masquelet induced membrane
Kevin Tetsworth, Jerry van de Pol	Luca Daniele, Gurpreeth Singh	Tension band wiring vs cannulated screw augmented fixation for patella fractures
Kevin Tetsworth, Prof Michael Schuetz (JTI)	Marita Prior , Vaida Glatt (Univ of Texas, San Antonio), Molly Ann Purdon Hulbert	Proposed classification scheme for post-traumatic skeletal defects, with a validation study in a clinical series of long bone fractures
Kevin Tetsworth	Nick Green, Steve Kent , George Patterson, Vaida Glatt, Joyce Antony , George Banic	Statistical shape modelling from CT scans to assess the morphology and morphometry of adult human cadaveric tali: gender-specific differences
Kevin Tetsworth	Nick Green, Luke Visscher, Marita Prior	Statistical shape modelling from CT scans to assess the morphology and morphometry of the adult human scapula: design considerations for implants for surgical stabilisation
Kevin Tetsworth	Nick Green, Luke Visscher, Marita Prior	Statistical shape modelling from CT scans to assess the morphology and morphometry of the adult human humerus
Kevin Tetsworth	Nick Green, Luke Visscher, Marita Prior , Erik Hohmann	Statistical shape modelling from MRI scans to assess the morphology and morphometry of the adult human glenoid, to assess the contribution of the labrum and its influence on version and inclination: the relationship with shoulder instability
Kevin Tetsworth	Luke Visscher, Marita Prior	The natural history of post-traumatic malalignment: radiographic correlation between varus/valgus and medial/lateral degenerative arthritis
Kevin Tetsworth	Miran Stubican, Marita Prior	Clinical and radiographic characteristics of combined pilon and talus/talar dome injuries
Kevin Tetsworth	Rajendra Shetty	Clinical series using the Masquelet induced membrane technique for long bone reconstruction
Kevin Tetsworth	Rishi Narasimhan	Meta-synthesis of outcomes after anterior minimally invasive plating for stabilization of humeral shaft fractures – The first 1,000 cases published globally
Kevin Tetsworth	Luke Visscher, Nick Green	Design considerations for an implant specific for percutaneous anterior minimally invasive plating of humeral shaft fractures
Kevin Tetsworth	Luke Visscher, Nick Green	Design considerations for an implant specific for stabilisation of scapular fractures
Kevin Tetsworth	Ishwar Bhattarai, Elliott D'Costa	The burden of orthopaedic infection in Australia – audit of clinical activity and acute referrals to a general orthopaedic unit in a major metropolitan public hospital
Kevin Tetsworth	Alexey Borshch	Analysis of failure of surgical treatment for adult chronic osteomyelitis
Kevin Tetsworth	Daryl Wall, Bilal Zahoor, Josh Piercey	A cohort of pelvic fractures at a single Australian tertiary referral center 2010-2016: Epidemiology of pelvic fractures and bio-markers associated with mortality in extra-peritoneal pelvic packing for haemorrhagic pelvic fractures
Kevin Tetsworth	Jeff Lipman , Antony Rapisarda, Sara Martinez-Martos	Identification of serum biomarkers for the diagnosis of orthopaedic infections and sepsis
Kevin Tetsworth	Chris Conyard, Ross Crawford	Knee pain after intra-medullary nailing of tibial shaft fractures: randomised controlled trial of infra-patellar vs supra-patellar insertion techniques

2018 Current RBWH Research Group / Department Led Research Activity (cont)

RBWH Research Group/Department Lead Researchers	Collaborative Researchers	Research Project Title
Kevin Tettsworth	Molly Ann Purdon Hulbert, Sara Martinez-Martos	Delays in coverage of open fractures: clinical outcomes and incidence of deep infection with type 4 open tibial fractures
Kevin Tettsworth	Nick Green	Geographical mapping of injuries to the talar dome and talus associated with distal tibial pilon fractures
Kevin Tettsworth	Liz Hines, Samantha Dowling	Infections associated with fasciotomy wounds
Kevin Tettsworth		Temporal evolution of the microbiome in Type 4 (neglected) open fractures
Kevin Tettsworth	Rishi Narasimhan, Minoo Patel (Melbourne), Australian Limb Lengthening and Reconstruction Society	Clinical implications of patients returning to Australia after undergoing complex limb reconstruction and elective lengthening procedures overseas
Kevin Tettsworth	Travis Parkulo (Marshall University, West Virginia), Erik Hohmann (Dubai), Julian Tettsworth	Triangular antiprisms: The geometry of hexapod external fixators and the etiology of paradoxical accelerated lengthening
Kevin Tettsworth	Nick Green	Design of a unique class of 3D structures that combine features of gyroids and lattices (hybrid triply periodic hyperbolic surface)
Kevin Tettsworth	Luca Daniele, Matt Davis, Owen O'Neill, Nick Green	In vitro validation study of a technique using a measured volume of saline to determine bone volume loss intra-operatively

2018 Collaborative Research Activity Involving RBWH Research Group / Department

Collaborative Lead Researchers	RBWH Researchers	Research Project Title
Vaida Glatt, Anna Woloszyk (Univ of Texas, San Antonio)	Kevin Tettsworth	Genomic analysis of growth factors associated with human induced (Masquelet) membranes: differential gene expression specific to osteogenesis, chondrogenesis, angiogenesis, and stem cell recruitment
Vaida Glatt, Anna Woloszyk (Univ of Texas, San Antonio)	Kevin Tettsworth	Genomic analysis of growth factors associated with early fracture healing under different mechanical conditions
Vaida Glatt (Univ of Texas, San Antonio), Steve Block	Kevin Tettsworth, Nick Green	Design of biomimetic 3D printed titanium cages
Ian Harris (Sydney), Mithun Joshi, John Limbers, Zsolt Balogh (Newcastle)	Kevin Tettsworth	SOFIE (Surgery for Olecranon Fractures In the Elderly): randomized controlled trial of operative vs non-operative treatment of olecranon fractures in the elderly
Ajay Pandey (QUT), Ross Crawford	Kevin Tettsworth, Nick Green, Richard Hanly	Robotic-assisted reduction and stabilisation of intra-articular calcaneal fractures
Munjed Al Muderis (University of Notre Dame, Sydney), Solon Rosenblatt, William Lu	Kevin Tettsworth	Transcutaneous endo-prosthetic reconstruction of wheelchair bound transfemoral amputees
Munjed Al Muderis (University of Notre Dame, Sydney), Solon Rosenblatt, William Lu	Kevin Tettsworth	Transcutaneous endo-prosthetic reconstruction of military blast injuries
Munjed Al Muderis (University of Notre Dame, Sydney), Solon Rosenblatt, William Lu	Kevin Tettsworth	Transcutaneous endo-prosthetic reconstruction of trans-tibial amputees
Munjed Al Muderis (University of Notre Dame, Sydney), Seamus Thompson, William Lu	Kevin Tettsworth	Osseointegrated implants for transfemoral amputees: radiographic evaluation of bone remodeling
Munjed Al Muderis (University of Notre Dame, Sydney), Solon Rosenblatt, William Lu	Kevin Tettsworth	Osseointegrated implants for transfemoral amputees: temporal evaluation of changes in bone mineral density in the femoral residuum and the adaptive response to loading
Munjed Al Muderis (University of Notre Dame, Sydney), William Lu	Kevin Tettsworth	Morphology and morphometry of the residual femur after trans-femoral amputation – implications for the design of implants used for osseointegration to reconstruct amputees
Paul Tuckett, Matthew Hope (Princess Alexandra)	Kevin Tettsworth, Arvind Puri	Transarticular tibio-talo-calcaneal nailing versus open reduction and internal fixation for treatment of the elderly ankle fracture: protocol for a multi-centre, prospective, randomised controlled trial

2018 Collaborative Research Activity involving RBWH Research Group / Department (cont)

Collaborative Lead Researchers	RBWH Researchers	Research Project Title
Pablo Corona (Barcelona)	Kevin Tettsworth , Vaida Glatt (Univ of Texas, San Antonio)	Using 3D printed models to preoperatively plan for the application of circular fixators for gradual deformity correction
Cengiz Sen (Istanbul)	Kevin Tettsworth	Supracondylar nail augmented acute shortening/lengthening for the treatment of infected nonunion of the distal femur with bone loss
Matthew Hope (Princess Alexandra), Cliff Pollard , Kirsten Vallmuur , Cate Cameron , Jacelle Lang (Jamieson Trauma Institute)	Kevin Tettsworth , Jerry van de Pol	The economic impact of lower extremity injuries at two major trauma centres in Brisbane, Australia
Gunnar Norstedt (Karolinska Institute, Stockholm), (Per Prisell (Burnie), Mark Wilson (Sunshine Coast))	Kevin Tettsworth	Genomic analysis of hip muscles for biomarkers specific to heterotopic ossification: comparison of gluteus minimus and medius muscles

2018 Research Awards and Achievements

Recipient	Award	Event
Luca Danielle	Bill Crawford Award for Best Registrar Scientific Paper	2018 Australian Orthopaedic Association Queensland Branch Annual Scientific Meeting

2018 Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups/ Departments	Project Title	Granting Body	Amount in 2018	Total Amount (years)
A/Prof Michael Doran (QUT/TRI), Kevin Tettsworth , Cameron Cooke, Kathryn Futegra, Kate Campbell, Mark Young, Jodie Robinson	Department of Orthopaedic Surgery	Using placenta-derived mesenchymal stem/stromal cells (pMSC) to repair non-union bone fractures	2018/19 Cord Blood Research Grant (Inner Wheel Australia Foundation Trust)	\$65,000	\$65,000 (2018)

2018 Research Publications

Journal Article:

- Anderson JA, Mason JA, **Halliday B**. Clinical outcomes and patient satisfaction following total hip and knee arthroplasty in patients with inherited bleeding disorders: a 20-year single-surgeon cohort. *Haemophilia* 2018; 24:786–791; DOI: 10.1111/hae.13559
- Hanly RJ**, Marvi SK, Whitehouse SL, Crawford RW. Morbid obesity in total knee arthroplasty: joint-specific variance in outcomes for operative time, length of stay, and readmission. *J Arthroplasty* 2017;32-9:2712
- Hanly RJ**, Sokolowski S, Timperley AJ. The SPAIRE technique allows sparing of the piriformis and obturator internus in a modified posterior approach to the hip. *Hip Int* 2017;27-2:205-9
- Robinson PW, **Hanly RJ**, Senthil S, Nall A, Hepple S, Harries W, Winson I. The results of arthroscopic and open flexor hallucis longus tendon transfers. *Orthopaedic Proceedings* 2017;99-B-SUPP_21:22
- Piercey J, **McEnery P**, **Green N**. Deep Transverse Metacarpal Ligament Reconstruction Using Suture Button and A1 Pulley. *Techniques in Hand & Upper Extremity Surgery* 2017; 21(4): 128–130; doi: 10.1097/BTH.0000000000000169
- van de Pol GJ**, Bonar F, Salmon LJ, **Roe JP**, Pinczewski LA. Supercritical Carbon Dioxide-Sterilized Bone Allograft in the Treatment of Tunnel Defects in 2-Stage Revision Anterior Cruciate Ligament Reconstruction: A Histologic Evaluation. *Arthroscopy*. 2018; 34(3): 706-713
- Hohmann E, Glatt V, **Tettsworth K**. Orthopaedic academic activity in the United States: Bibliometric analysis of Publications by City and State. *J Am Acad Orthop Surg (JAAOS) Global Research Reviews* 2018; 2(7): e027. Published 2018 Jul 23. doi:10.5435/JAAOSGlobal-D-18-00027
- Hohmann E, Glatt V, **Tettsworth K**. Swimming induced pulmonary oedema in athletes—a systematic review and best evidence synthesis. *BMC Sports Science, Medicine and Rehabilitation* 2018; 10(1): 18
- Corona PS, Vicente M, **Tettsworth K**, Glatt V. Preliminary results using patient-specific 3D printed models to improve preoperative planning for correction of post-traumatic tibial deformities with circular frames. *Injury* 2018; 49: S51-9
- Hohmann E, Myburgh J, Keough N, **Tettsworth K**, Glatt V. Inter-and intraclass correlations for three standard foot radiographic measurements for plantar surface angles. Which measure is most reliable? *Foot and Ankle Surgery* 2018; Jul 26 (in press, corrected proof). <https://doi.org/10.1016/j.fas.2018.07.007>

Journal Articles: (cont):

11. Hohmann E, Glatt V, **Tetsworth K**, Cote M. Arthroscopic partial meniscectomy versus physical therapy for degenerative meniscus lesions: How robust is the current evidence? A critical systematic review and qualitative synthesis. *Arthroscopy* 2018; 34(9): 2699-708. <https://doi.org/10.1016/j.arthro.2018.04.018>
12. Hohmann E, **Tetsworth K**. Fellowship exit examination in orthopaedic surgery in the commonwealth countries of Australia, UK, South Africa and Canada. Are they comparable and equivalent? A perspective on the requirements for medical migration. *Medical Education Online*. 2018 Jan 1; 23(1): 1537429
13. Baldini A, Blevins K, Del Gaizo D, Enke O, Goswami K, Griffin W, Indelli F, Jennison T, Kenanidis E, Manner P, Patel R, Puhto T, Sancheti P, Sharma R, Sharma R, Shetty R, Sorial R, Talati N, Tarity TD, **Tetsworth K**, Topalis C, Tsiroidis E, W-Dahl A, Wilson M. General assembly, prevention, operating room - personnel: Proceedings of International Consensus on Orthopedic Infections. *The Journal of Arthroplasty* 2018; in press. DOI: <https://doi.org/10.1016/j.arth.2018.09.059>
14. Hohmann E, König A, Kat CJ, Glatt V, **Tetsworth K**, Keough N. Single-versus double-row repair for full-thickness rotator cuff tears using suture anchors. A systematic review and meta-analysis of basic biomechanical studies. *Eur J Orthop Surg Traumatol*. 2018; 2:859-68. doi:10.1007/s00590-017-2114-6. PMID: 29270867
15. McKinley TO, D'Allyrande JC, Valerio I, Schoebel S, **Tetsworth K**, Elster EA. Management of mangled extremities and orthopaedic war injuries. *Journal of Orthopaedic Trauma*: 2018; 32(3): S37–S42. doi: 10.1097/BOT.0000000000001121
16. Muderis MA, Lu W, Glatt V, **Tetsworth K**. Two-stage osseointegrated reconstruction of post-traumatic unilateral transfemoral amputees. *Mil Med*. 2018; 183 (supplement 1):496-502. doi: 10.1093/milmed/usx185. PMID: 29635590
17. Molepo M, Barnard AC, Birkholtz F, **Tetsworth K**, Glatt V, Hohmann E. Functional outcomes of failed plate fixation in distal tibial fractures salvaged by hexapod external fixator. *Eur J Orthop Surg Traumatol* 2018. <https://doi.org/10.1007/s00590-018-2231-x>
18. **Tetsworth K**, Hohmann E, Glatt V. Minimally invasive plate osteosynthesis of humeral shaft fractures: Current state of the art. *JAAOS - Journal of the American Academy of Orthopaedic Surgeons*. 2018 Sep 15;26 (18): 652-61. doi: 10.5435/JAAOS-D-17-00238. PMID: 30113346
19. Sprague S, Schemitsch EH, Swiontkowski M, Della Rocca GJ, Jeray KJ, Liew S, Slobogean GP, Bzovsky S, Heels-Ansdell D, Zhou Q, Bhandari M; **FAITH Investigators**. Factors associated with revision surgery after internal fixation of hip fractures. *J Orthop Trauma* 2018; 32(5): 223-230. doi: 10.1097/BOT.0000000000001162. PMID: 29677091. (Including **Annette Flynn, Bret Halliday, Michael Holt, Kevin Tetsworth, Steven Yang, Paul Pincus, and Trevor Gervais**)
20. Hohmann E, **Tetsworth K**, Glatt V. The hamstring/quadriceps ratio is an indicator of function in ACL-deficient, but not in ACL-reconstructed knees. *Arch Orthop Trauma Surg* 2018; pp 1-8. <https://doi.org/10.1007/s00402-018-3000-3>.

Book Chapter:

1. **Tetsworth K**, Glatt V: "Amputations", in *Synopsis of Orthopaedic Trauma Management*. Edited by Mullis B and Gaski G. Thieme Medical Publishers, Inc., 333 Seventh Avenue, New York, NY 10001, USA. (2018).

2018 Conference Presentations – Invited Speaker, Oral, and Poster

Invited Speaker:

1. **McEniery P**. Principles of management of adult brachial plexus injuries. Queensland Hand Surgery Society Annual Meeting 24-25 November 2018
2. **McEniery P**. Volar Plating proximal interphalangeal joint pilon fractures. Queensland Hand Surgery Society Annual Meeting 24-25 November 2018
3. **Tetsworth K**. What's new in hip fractures? (literature review). Proximal Femoral Fracture Management Experts Forum, Dubai, United Arab Emirates (UAE) – 6-7 April 2018
4. **Tetsworth K**. Interesting clinical cases – proximal femur fractures. Proximal Femoral Fracture Management Experts Forum, Dubai, UAE – 6-7 April 2018
5. **Tetsworth K**. Unstable hip fractures: how do we improve outcomes? Proximal Femoral Fracture Management Experts Forum, Dubai, UAE – 6-7 April 2018
6. **Tetsworth K**. Stable hip fractures: best techniques for fixation. Proximal Femoral Fracture Management Experts Forum, Dubai, UAE – 6-7 April 2018
7. **Tetsworth K**. Informed principles: our guide to better outcomes. Proximal Femoral Fracture Management Experts Forum, Dubai, UAE – 6-7 April 2018
8. **Tetsworth K**. Pre-operative planning of lower extremity deformity: Malalignment test, CORA method, and osteotomy rules. 4th Intercontinental Meeting of 3D Surgery (Defects, Deformities, Discrepancies), Istanbul, Turkey, May 16-19, 2018
9. **Tetsworth K**. Taylor Spatial Frame: How does it differ from Ilizarov? 4th Intercontinental Meeting of 3D Surgery (Defects, Deformities, Discrepancies), Istanbul, Turkey, May 16-19, 2018
10. **Tetsworth K**. Options for management of traumatic segmental skeletal defects. 4th Intercontinental Meeting of 3D Surgery (Defects, Deformities, Discrepancies), Istanbul, Turkey, May 16-19, 2018
11. **Tetsworth K**. Advantages of the Masquelet technique. 4th Intercontinental Meeting of 3D Surgery (Defects, Deformities, Discrepancies), Istanbul, Turkey, May 16-19, 2018
12. **Tetsworth K**. Extra articular deformity: Implications for total knee arthroplasty. 4th Intercontinental Meeting of 3D Surgery (Defects, Deformities, Discrepancies), Istanbul, Turkey, May 16-19, 2018

Invited Speaker: (cont):

13. **Tetsworth K.** Combined techniques for the safe correction of very large tibial rotational deformities in adults. 4th Intercontinental Meeting of 3D Surgery (Defects, Deformities, Discrepancies), Istanbul, Turkey, May 16-19, 2018
14. **Tetsworth K, Al Muderis M.** Osseointegration: The ultimate post-traumatic limb reconstruction? 4th Intercontinental Meeting of 3D Surgery (Defects, Deformities, Discrepancies), Istanbul, Turkey, May 16-19, 2018
15. **Tetsworth K.** Bone loss and total knee arthroplasty. 11th Meeting of the International Musculoskeletal Society, Beirut, Lebanon 8-10 July 2018
16. **Tetsworth K.** Case discussion: infected total knee replacement. 11th Meeting of the International Musculoskeletal Society, Beirut, Lebanon 8-10 July 2018
17. **Tetsworth K.** High-energy injuries of the upper extremity with bone loss. 11th Meeting of the International Musculoskeletal Society, Beirut, Lebanon 8-10 July 2018
18. **Tetsworth K.** Introduction to planning a patient specific cage to reconstruct a major bone defect. 11th Meeting of the International Musculoskeletal Society, Beirut, Lebanon 8-10 July 2018
19. **Tetsworth K.** Case discussion: shoulder instability. 11th Meeting of the International Musculoskeletal Society, Beirut, Lebanon 8-10 July 2018
20. **Tetsworth K.** Case discussion: difficult revision THA. 11th Meeting of the International Musculoskeletal Society, Beirut, Lebanon 8-10 July 2018
21. **Tetsworth K.** Lower extremity injuries with significant bone loss. 11th Meeting of the International Musculoskeletal Society, Beirut, Lebanon 8-10 July 2018
22. **Tetsworth K.** Talus injuries and AVN with infection. 11th Meeting of the International Musculoskeletal Society. Beirut, Lebanon 8-10 July 2018
23. **Tetsworth K.** Case discussion: shoulder infection. 11th Meeting of the International Musculoskeletal Society, Beirut, Lebanon 8-10 July 2018
24. **Tetsworth K.** Osteotomy rules: the geometry of deformity correction. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
25. **Tetsworth K.** Percutaneous osteotomy techniques. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
26. **Tetsworth K.** Distal femoral replacement for complex acute fractures in the elderly. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
27. **Tetsworth K.** Osseointegration in PVD and wheel chair bound amputees. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
28. **Tetsworth K.** Translation deformity planning. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
29. **Tetsworth K.** Evolution of limb salvage: 1950 through 2025. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
30. **Tetsworth K.** Introduction to planning a patient-specific cage to reconstruct a major bone defect. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
31. **Tetsworth K.** Management of prosthetic joint infection: antibiotic elution from PMMA spacers. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
32. **Tetsworth K.** New alternatives for bone segment transport. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
33. **Tetsworth K.** Biology of the Masquelet induced membrane. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
34. **Tetsworth K.** Bone transport: docking site management. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
35. **Tetsworth K.** Chronic osteomyelitis: optimising debridement in the 21st Century Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
36. **Tetsworth K.** Extra-articular deformity and TKA: strategies for management. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
37. **Tetsworth K.** Global experience with minimally invasive plate osteosynthesis for the stabilization of humeral shaft fractures: Systematic review and quantitative evidence synthesis of clinical results. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
38. **Tetsworth K.** Osseointegration update. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
39. **Tetsworth K.** Neglected open fractures Grade 4. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
40. **Tetsworth K.** Clinical cases: non-union reconstruction. Supersemana Académica (Academic Super Week) Colombian Orthopedic Association, Medellin, Colombia, 29 October to 1st November 2018
41. **Tetsworth K.** Biology of the Masquelet induced membrane. Joint American Academy of Orthopedic Surgeons (AAOS) and Saudi Orthopaedic Association Meeting, Jeddah, Saudi Arabia – 8-11 December 2018
42. **Tetsworth K.** Minimally invasive plate osteosynthesis (MIPO) for the stabilization of humeral shaft fractures. Joint AAOS and Saudi Orthopaedic Association Meeting, Jeddah, Saudi Arabia – 8-11 December 2018
43. **Tetsworth K.** Current alternatives for managing segmental defects. Joint AAOS and Saudi Orthopaedic Association Meeting, Jeddah, Saudi Arabia – 8-11 December 2018
44. **Tetsworth K.** Introduction to planning a patient specific cage to reconstruct a major bone defect. Joint AAOS and Saudi Orthopaedic Association Meeting, Jeddah, Saudi Arabia – 8-11 December 2018

Invited Speaker: (cont):

45. **Tetsworth K.** Chronic osteomyelitis: mastering debridement in the 21st Century. Joint AAOS and Saudi Orthopaedic Association Meeting, Jeddah, Saudi Arabia – 8-11 December 2018
46. **Tetsworth K.** Osseointegration: Current state of the art, Queensland Trauma Symposium, Brisbane, QLD, 23 February 2018
47. **Tetsworth K.** 3D printed custom titanium scaffolds for the management of segmental bone defects, 3rd Complex Revision and Limb Salvage Meeting, Noosa, QLD, 23-25 February 2018
48. **Tetsworth K.** Complex case discussion: simultaneous reconstruction of segmental femoral defect and total hip replacement, 3rd Complex Revision and Limb Salvage Meeting, Noosa, QLD, 23-25 February 2018
49. **Tetsworth K.** Distal femoral replacement for complex acute fractures in the elderly, 3rd Complex Revision and Limb Salvage Meeting, Noosa, QLD, 23-25 February 2018
50. **Tetsworth K.** Symptomatic hip abductor deficiency: technique of reconstruction, 3rd Complex Revision and Limb Salvage Meeting, Noosa, QLD, 23-25 February 2018
51. **Tetsworth K.** New alternatives for bone transport, Australian Limb Lengthening and Reconstruction Society Annual Scientific Meeting, Noosa, QLD, 1-3 June 2018
52. **Tetsworth K.** Biology of the Masquelet induced membrane, Australian Limb Lengthening and Reconstruction Society Annual Scientific Meeting, Noosa, QLD, 1-3 June 2018
53. **Tetsworth K.** Musculoskeletal sepsis: classification and management strategies, Australian Limb Lengthening and Reconstruction Society Annual Scientific Meeting, Noosa, QLD, 1-3 June 2018
54. **Tetsworth K.** Demonstration: reamer irrigator aspirator bone graft harvest, and PMMA antibiotic spacer fabrication, Australian Limb Lengthening and Reconstruction Society Annual Scientific Meeting, Noosa, QLD, 1-3 June 2018
55. **Tetsworth K.** Quantitative evidence synthesis of MIPO for humeral shaft fractures: global clinical experience 2007-17, Australian Orthopaedic Trauma Society 1st Annual Scientific Meeting, Noosa, QLD, 22-24 June 2018
56. **Tetsworth K.** Case discussion: failed humeral fixation, Australian Orthopaedic Trauma Society 1st Annual Scientific Meeting, Noosa, QLD, 22-24 June 2018
57. **Tetsworth K.** Debate: infected internal fixation must be removed – in the affirmative, Australian Orthopaedic Trauma Society 1st Annual Scientific Meeting, Noosa, QLD, 22-24 June 2018
58. **Tetsworth K.** Complex case discussion: reconstruction of traumatic segmental defect distal femur with a patient-specific titanium cage into a Masquelet membrane, Taylor Spatial Frame Limb Restoration Forum, Dallas, Texas, 28 September 2018.

Oral Presentations:

1. **Daniele L, Rebgetz P, Underhill I, Ochsner A, Taylor F.** Biomechanical stability of radial head fracture fixation with headless compression screws. 2018 Australian Orthopaedic Association Queensland Branch Annual Scientific Meeting, 8 June 2018
2. **Tetsworth K, Al Muderis M, Lu W.** Osseointegration for the reconstruction of devastating military and terrorist blast injuries. 2nd International Symposium on Innovations in Amputation Surgery and Prosthetic Technologies (IASPT) Vienna, Austria May 10-12, 2018
3. **Tetsworth K, Rosenblatt S, Al Muderis M, Lu W.** Are All Femurs Equal? Design Considerations for Femoral Osseointegration Implants. 2nd International Symposium on Innovations in Amputation Surgery and Prosthetic Technologies (IASPT) Vienna, Austria May 10-12, 2018
4. **Tetsworth K** Using custom 3D printed scaffolds together with the Masquelet technique for the reconstruction of massive femoral bone defects, 34th Annual Meeting of the Orthopedic Trauma Association, Orlando, Florida, 17-20 Oct 2018
5. **Tetsworth K.** Case-match controlled comparison of anterior MIPO and ORIF for the stabilization of humeral shaft fractures, 38th Meeting of the Israeli Orthopaedic Association, Tel Aviv, Israel 12-13 December 2018
6. **Tetsworth K.** Preliminary results using patient-specific 3D printed titanium cages for the reconstruction of massive femoral bone loss, 38th Meeting of the Israeli Orthopaedic Association, Tel Aviv, Israel 12-13 December 2018.

Other Communications and Outputs:

- (a) **Dennis Hartig** Google Scholar Profile: <https://scholar.google.com.au/citations?user=VY5f5jAAAAAJ&hl=en>
- (b) **Jerry van de Pol** Google Scholar Profile: <https://scholar.google.com.au/citations?user=hp0pFGMAAAAJ&hl=en>
- (c) **Royal Brisbane and Women's Hospital / Kevin Tetsworth** on the AOA Research Networking Map: <https://www.aoa.org.au/research/researchmap>
- (d) **Kevin Tetsworth** Google Scholar Profile: <https://scholar.google.com.au/citations?user=bx9ktUgAAAAAJ&hl=en>
- (e) **Kevin Tetsworth** ResearchGate Profile: https://www.researchgate.net/profile/Kevin_Tetsworth
- (f) **Kevin Tetsworth** PubMed/NCBI: <https://www.ncbi.nlm.nih.gov/sites/myncbi/1nUysixHnhkQe/bibliography/53341976/public/?sort=date&direction=ascending>.

Department of Oral and Maxillofacial Surgery Unit

The year saw a consistent output of research articles and presentations for the department. Ongoing randomised controlled trials continue to recruit patients steadily. The department formed important collaborations with external organisations to expand our research activities particularly in the area of head and neck oncology and reconstructive surgery.

The department continued operating a virtual surgical planning and 3D printing facility. Producing various projects in this exciting surgical planning arena.

Supervised Post-Graduate Research Students

Name (RBWH staff in bold)	Current Studies (e.g. PhD, Masters etc.) University (duration)	Research Project Title	Supervisors (RBWH staff in bold)
Benjamin Fu	MPhil	CT scanning in odontogenic infections of the head and neck	Martin Batstone
Michael Hurrell	PhD	Treatment delay in Facial Trauma	Martin Batstone
Timothy Liu	PhD	Intermediate risk Oral Cavity SCC	Martin Batstone
Kelly McGowan	PhD	Risk factors for Medication- Related Osteonecrosis of the jaws: a Case control Study in Queensland, Australia	Saso Ivanowski, Newell Johnson, Robert Ware, Caroline Acton

2018 Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/ Department Lead Researchers	Collaborative Researchers	Research Project Title
Martin Batstone	QIMR	Immune biomarkers in Oral Cavity SCC

2018 Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Lead Researchers	RBWH Researchers	Research Project Title
	Carline Acton	Risk factors for Medication – Related Osteonecrosis of the jaws: a case control study in Queensland, Australia
Kelly McGowan (UQ), Saso Ivanowski (Griffith), Newell Johnson (Griffith), Robert Ware (Griffith), Caroline Acton (RBWH Maxillofacial Surgery Unit)	Caroline Acton (Maxillofacial Surgery Unit)	

2018 Research Publications

Journal Articles:

1. Liu T, Chua B, **Batstone M**. Postoperative radiotherapy for Oral Squamous cell carcinoma with histologic risk factors: are we over-treating? J Oral Maxillofac Surg 2018 Jul;76(7):1565-1570
2. **Batstone MD**. Reconstruction of major defects of the jaws. Aust Dent J. 2018 Mar;63. Suppl 1: s108-113
3. Hurrell MJL, David MC, **Batstone MD**. A prospective study examining the effects of treatment timing in the management of mandible fractures. Int J Oral and Maxillofac surg 2018 Sep;47(9):1126-1131
4. Oztel M, Rahmel B, Van Genechten, M, **Batstone MD**. A tip for the reconstruction of larger maxillary defects in complicated cleft patients. Cleft Pal craniofacial journal. 2018
5. Pateman KA, Cockburn NL, **Batstone MD**, Ford PJ. Quality of life of head and neck cancer patients in urban and regional areas: an Australian Perspective. Aust J Rural health 2018 Jun;26(3):157-164
6. Fu B, McGowan K, Sun H, **Batstone M**. Increasing use of intensive care unit for odontogenic infection over one decade: incidence and predictors. J Oral Maxillofac Surg 2018
7. Pateman KA, Weerakoon AT, **Batstone MD**, Ford PJ. A culture shock in dental hygiene: Exploring the management of oral health after head and neck cancer. Int J Dent Hyg. 2018 Dec 3. Epub
8. McGowan, K., Ivanovski, S., **Acton, C.**, 2018. Osteonecrosis of the jaws: a 14-year retrospective survey of hospital admissions. Australian Dental Journal, 63(2), 202-207
9. McGowan, K., **Acton, C.**, Ivanovski, S., Johnson, N.W., Ware, R., 2018. Systemic risk factors predict medication-related osteonecrosis of the jaw. Oral Diseases. (In press)
10. McGowan, K., Ware, R., **Acton, C.**, Ivanovski, S., Johnson, N.W., 2018. Both non-surgical dental treatment and extractions increase the risk of medication-related osteonecrosis of the jaw: case-control study. Clinical Oral Investigations. (In press)
11. McGowan, K., Ware, R., **Acton, C.**, Ivanovski, S., Johnson, N.W., 2018. Full blood counts are not predictive of the risk of medication-related osteonecrosis of the jaws: case-control study. Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology. (In preparation).

2018 Conference Presentations – Invited Speaker, Oral and Poster

Invited Speaker:

1. **Batstone M**. Oral Cavity Cancer survival in Australia. Time for some modern data. ANZHNC/ISMR 2018, Melbourne.

Oral Presentations:

1. **Batstone M**. Free flap monitoring. ANZHNC/ISMR 2018 Melbourne.

Department of Plastic and Reconstructive Surgery

2018 Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/Department Lead Researchers	Collaborative Researchers	Research Project Title
Darryl Dunn	Michael Wagels, Raja Sawhney	A multicentre trial of lymph node metastatic disease in lip squamous cell carcinoma
Shireen Senewiratne	Henry Beem , Luke Watson, Noah Betar	Bilateral pectoralis major myocutaneous advancement flap reconstruction for complicated median sternotomy wounds

2018 Conference Presentations – Invited Speaker, Oral and Poster

Poster Presentations:

1. **Robert Calvisi, Caitlin O'Hare, Jessica Van Den Heuvel, and Darryl Dunn.** Lymph node metastasis in Squamous Cell Carcinoma of the lip. Australian New Zealand Head and Neck Cancer Society and International Society for Maxillofacial Rehabilitation Annual Scientific Meeting 2018, Melbourne
2. **Katie-Beth Webster, Darryl Dunn, and Sue Ferredo.** Outcomes of octagenarian patients following head and neck cancer. Australian New Zealand Head and Neck Cancer Society and International Society for Maxillofacial Rehabilitation Annual Scientific Meeting 2018, Melbourne
3. **Luke Watson and Ryan Livingston.** Use of vascularised plantaris and achilles tendon in the reconstruction of knee extensor mechanism loss with overlying fasciocutaneous tissue defect. Royal Australian College of Surgeons 87th Annual Scientific Congress, Sydney
4. **Jeannine McManus, Ryan Livingston, and Darryl Dunn.** A case of Kaposi Sarcoma in a young, HIV-negative, immunocompetent patient. Royal Australian College of Surgeons 87th Annual Scientific Congress, Sydney
5. **Karissa Graham and Roman Mykula.** Clostridial myonecrosis following injection into the sacroiliac joint. Royal Australian College of Surgeons 87th Annual Scientific Congress, Sydney
6. **Luke Watson and Darryl Dunn.** Extensive combined lip reconstruction using an inverted latissimus dorsi free flap to restore dynamic lip function. Royal Australian College of Surgeons 87th Annual Scientific Congress, Sydney
7. **Karissa Graham.** Frey's Syndrome post-radiation to nose for Merkel Cell Carcinoma. Royal Australian College of Surgeons 87th Annual Scientific Congress, Sydney
8. **Alicia Heald, Vedella Hinckley, Matthew Peters, and Kieran Rowe.** Metastatic Infiltrating Basal Cell Carcinoma responsive to Vidmodegib: a case report. Royal Australian College of Surgeons 87th Annual Scientific Congress, Sydney.

Department of Vascular Surgery

Dr Jenkins is the Principle Investigator on two clinical trials aimed at improving the management of vascular disease, and has significant research collaborations with Professor Jon Golledge's group at James Cook University. During 2018, under the supervision of Dr Jenkins and in collaboration with Dr Rowbotham of the University of Queensland, the Department of Vascular Surgery participated in a variety of research projects in the area of vascular disease. Research ranged from basic science investigation into the aetiology of aortic aneurysmal disease, through to studies of devices for endoluminal management of aortic pathology. The department played a key role in the recruitment of participants to multicentre clinical trials assessing medical therapies for the management of abdominal aortic aneurysm (AAA), as well as a behavioural intervention trial for patients with peripheral artery disease (PAD).

Under the supervision of Dr Jenkins, Dr Pinto and Dr Iyer, Mr Dally-Watkins, a student of the University of Queensland, completed a successful honours project for his BSc degree. Mr Dally-Watkins investigated the applications of 3D printing specifically in the preoperative planning of endovascular aortic repair. The research demonstrated that a 3D model of an abdominal aneurysm could be produced to a dimensional standard that is comparable to a CT scan. This promising research bolstered the feasibility of utilising 3D printing technology in the replication of complex pathological anatomy for various applications in vascular surgery, including preoperative familiarisation for clinicians, patient education, and for use in surgical simulation.

Research carried out by the Vascular Department has the potential to significantly improve the management of patients with vascular disease.

2018 Research Positions: Coordinators, Fellow, Adjunct and Honorary Positions

Name	Type of Fellowship	Research Program	University (years)
Jason Jenkins	Senior lecturer	Faculty of Medicine	University of Queensland (XXXX – current)
Simon Quinn	Senior lecturer	Faculty of Medicine	University of Queensland (2013 – current)
Danella Favot	Senior lecturer	Faculty of Medicine	University of Queensland (XXXX – current)
Murray Ogg	Senior lecturer	Faculty of Medicine	University of Queensland (XXXX – current)
Nigel Pinto	Senior lecturer	Faculty of Medicine	University of Queensland (XXXX – current)

2018 Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/Department Lead Researchers	Collaborative Researchers	Research Project Title
Dr Jason Jenkins, Dr Nigel Pinto		Advanced manufacturing and simulation of vascular anatomy, novel endovascular devices, medical applications of graphene
Dr Jason Jenkins	Sr. Julie Jenkins (RBWH)	The Endurant Stent Graft Natural Selection Post-market Registry (ENGAGE)
Dr Jason Jenkins, Dr Nigel Pinto, Dr Vikram Iyer	Matthew Dally-Watkins (University of Queensland)	Applications of 3D printing in preoperative planning of endovascular aortic repair
Dr Vikram Iyer	Prof Jon Golledge (James Cook University)	Coding and non-coding circulating RNAs associated with the presence and rapid expansion of abdominal aortic aneurysm

2018 Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Lead Researchers	RBWH Researchers	Research Project Title
Prof Jon Golledge (James Cook University)	Dr Jason Jenkins	Effect of a dietary supplement on abdominal aortic aneurysm growth (IMAGEN)
Prof Jon Golledge (James Cook University)	Dr Jason Jenkins	Brief behavioural counselling intervention for peripheral arterial disease (BIP)

2018 Research Awards and Achievements

Recipient	Award	Event
Vikram Iyer	Foundation for Surgery Professor Philip Walker RACS Vascular Research Scholarship	N/A

2018 Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups/ Departments	Project Title	Granting Body	Amount in 2018	Total Amount (years)
Dr Jason Jenkins, Dr Nigel Pinto	Vascular	Advanced manufacturing and simulation of vascular anatomy, novel endovascular devices, medical applications of graphene	The Herston Biofabrication Institute	\$175,000	\$1,600,000 (2018 – 2024)
BURTON, Nicola W; Golledge, J.; Jenkins, J ; Norman, P.; Fiatarone Singh, M.; Leicht, A. & Ademi, Z.	Vascular	Assessment of the efficacy of a brief behaviour intervention designed to improve physical activity in patients with peripheral artery disease	NHMRC Project Grant administered by James Cook University	\$ 50,000	\$131,257.26 (2014-2018)

2018 Research Publications

Journal Articles:

1. Pinchbeck JL, Moxon JV, **Rowbotham SE**, Bourke M, Lazzaroni S, Morton SK, Matthews EO, Hendy K, Jones RE, Bourke B, Jaeggi R, **Favot D**, Quigley F, **Jenkins JS**, Reid CM, Velu R, Golledge J. Randomized Placebo-Controlled Trial Assessing the Effect of 24-Week Fenofibrate Therapy on Circulating Markers of Abdominal Aortic Aneurysm: Outcomes From the FAME -2 Trial. J Am Heart Assoc. 2018 Oct 2;7(19):e009866
2. Golledge J, Morris DR, Pinchbeck J, **Rowbotham S, Jenkins J**, Bourke M, Bourke B, Norman PE, Jones R, Moxon JV. Metformin Prescription is Associated with a Reduction in the Combined Incidence of Surgical Repair and Rupture Related Mortality in Patients with Abdominal Aortic Aneurysm. Eur J Vasc Endovasc Surg. 2018 Aug 30. pii: S1078-5884(18)30509-4
3. Golledge J, Moxon JV, **Rowbotham S**, Pinchbeck J, Yip L, Velu R, Quigley F, Jenkins J, Morris DR. Risk of major amputation in patients with intermittent claudication undergoing early revascularization. Br J Surg. 2018 May;105(6):699-708
4. **Rowbotham SE**, Krishna SM, Moran CS, Golledge J. Fenofibrate and Telmisartan in the Management of Abdominal Aortic Aneurysm. Curr Drug Targets. 2018;19(11):1241-1246
5. Aaron Lim, Gursimran Kaur, Paul Poyck, Vipul Vyas, Andrew Redmond, **Simon Quinn**. Bacillus Calmette-Guérin immunotherapy: A rare cause for a ruptured common femoral artery. ANZ J Surg. 2018 Sep;88(9):931-933
6. **Stacie Hodge**, Sebastian Helliard, Hamish Ian Macdonald, and Paul Mackey. Using an original triage and on call management tool aids identification and assessment of the acutely unwell surgical patient. BMJ Open Qual. 2018; 7(2): e000235
7. Garg AX, Devereaux PJ, Hill A, Sood M, Aggarwal B, Dubois L, Hiremath S, Guzman R, **Iyer V**, James M, McArthur E, Moist L, Ouellet G, Parikh CR, Schumann V, Sharan S, Thiessen-Philbrook H, Tobe S, Wald R, Walsh M, Weir M, Pannu N; Curcumin AAA AKI Investigators. Oral curcumin in elective abdominal aortic aneurysm repair: a multicentre randomized controlled trial. CMAJ. 2018 Oct 29;190(43): E1273-E1280.

2018 Conference Presentations – Invited Speaker, Oral and Poster

Oral Presentations:

1. **Simon Quinn**. Self-expanding covered stents for salvage in infection of the aorto-iliac segment. Visionary Endovascular & Vascular Education (VERVE) symposium 2018. Sydney, Australia
2. **Alison McGill**. Outcomes from our model for a nurse led Vascular Renal Access Surveillance Clinic. ANZ Society for Vascular Surgery Annual Scientific Conference 2018. Auckland, New Zealand
3. **Vikram Iyer**. Geniculate artery embolization for recurrent hemarthrosis post total knee replacement. Global Embolization Symposium and Technologies 2018. Miami Beach, USA
4. **Vikram Iyer**. Serum miRNAs associated with the presence and rapid expansion of abdominal aortic aneurysms. International Vascular Biology Meeting 2018. Helsinki, Finland.

Kenneth G Jamieson, Department of Neurosurgery

Further progress was made towards completion of Drs Winter and Nichols' clinical research project into MMP biomarkers in TBI, with recruitment of patients, and significant progress with development of appropriate assays. They anticipate completion of the project later in 2019.

Dr McMillen published two further operative technical videos in Operative Neurosurgery, with further publications in this area to come.

Dr Jeffree continued to be involved in recruitment for multi-centre neuro-oncology trials.

Dr McMillen and Dr Liam Coulthard have applied for funding to commence recruitment for a study of complement activation in CSF in aneurysmal subarachnoid haemorrhage

Dr McMillen is one of the lead investigators in a circulating cell free DNA biomarker in TBI study that commenced planning in late 2018, with a view to commencing recruitment at a number of sites in 2019

Dr Craig Winter was awarded a PhD from the University of Cambridge in the United Kingdom for his body of research work into hypoxia and the blood brain barrier.

2018 Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/ Department Lead Researchers	Collaborative Researchers	Research Project Title
Dr Paul Nichols, Dr Craig Winter		Serum biomarker correlation with dynamic contrast enhanced MRI for matrix metalloproteinases (1, 2, 7, 9, 10) in traumatic brain injury

2018 Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Lead Researchers	RBWH Researchers	Research Project Title
Jamieson Trauma Institute – TBI Advisory Group	Dr Jason McMillen	The sensitivity and specificity of brain-origin circulating cell free DNA (ccfDNA) for the diagnosis of concussion and prediction of intracranial injuries

2018 Research Awards and Achievements

Recipient	Award	Event
Dr Craig Winter	PhD, University of Cambridge	For body of research work into hypoxia and the blood brain barrier

2018 Research Publications

Journal Articles:

1. Exophytic Brainstem Cavernoma in the Floor of the Fourth Ventricle Midline Suboccipital Approach: 3-Dimensional Operative Video. Bulstrode HJC, **McMillen J**, Patel K, Correia J, Guilfoyle M, Young A, Santarius T, Kirollos R, Trivedi R. Oper Neurosurg (Hagerstown). 2018 Dec 19 doi: 10.1093/ons/opy384
2. Type I Spinal Dural Fistula Treated Using a Minimally Invasive Approach With a 20-mm Nonexpandable Tubular Retractor: 3-Dimensional Operative Video. Patel K, **McMillen J**, Kirollos RW, Budohoski KP, Santarius T, Trivedi RA. Oper Neurosurg (Hagerstown) 2018 Nov 1;15(5): E52 doi: 10.1093/ons/opy032
3. Incidence and outcome of subarachnoid haemorrhage in the general and emergency department populations in Queensland from 2010 to 2014. Chu KH, Mahmoud I, Hou XY, **Winter CD**, **Jeffree RL**, Brown NJ, Brown AF. Emerg Med Australas. 2018 Aug;30(4):503-510. doi: 10.1111/1742-6723.12936.

Professor Stuart Pegg Burns Centre

2018 has been a very good year for moving research forward in burns. While continuing to innovate and provide the highest quality up to date burns care, we have also taken huge steps forward to deliver research outcomes over the whole multidisciplinary spectrum of burns care.

One of the biggest highlights was the successful project application to the Herston Biofabrication Institute. Partnering RBWH clinicians with QUT, the Institute promises to deliver access to cutting edge therapies and technologies for burns patients while focusing research on real clinical problems to hopefully deliver rapidly translatable outcome to further improve patient care.

We continue to partner with industry with the final stages of the Burn 2 Study sponsored by Polynovo and using cutting edges Australian developed biodegradable polymers to treat burn wounds, and not only save lives, burn improve their quality of life after major burn trauma.

We have also been working closely with the newly established Jamieson Trauma Institute, working on developing research projects spanning the whole spectrum of the burn patient journey. Hopefully this is just the beginning of a new era of research aimed at improving burn patient care.

2018 Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/Department Lead Researchers	Collaborative Researchers	Research Project Title
Jason Brown	Jason Miller, Carl Lisec	A prospective, non-controlled evaluation of the synthetic NovoSorb™. Biodegradable Temporising Matrix (BTM) for dermal repair after deep burn injury
Jason Brown	Michelle Donovan, Zephane Tyack, Steven Mcphail	Feasibility, acceptability, costs and preliminary effect of an innovative ablative fractional CO2 laser service for people with burn scars
Andrea Mc Kittrick	Amber Jones, Jason Brown	A retrospective review of the management and functional outcomes of patients who developed Heterotopic Ossification in one or bilateral upper limbs post severe burn injury at Royal Brisbane and Women's Hospital (RBWH) between 2006 and 2016
Anita Plaza	Michelle Cottrell, Jennifer Paratz	Evaluating the effectiveness of a home based telerehabilitation model for the delivery of physiotherapy exercise programs following burn injury
Jennifer Strong	Sarah O'Reilly, Dale Trevor, Jodie Copley, Tammy Aplin, Joanna Mollison, Nicole Coghlan, Sue Laracy, Jason Brown	The lived experience of pressure garments: an exploration of the partnership between expert consumers and occupational therapists in a tertiary MDT burns centre
Zephane Tyack	M.E. Carrière, L.B. Mokkink2, M.J. Westerman, P.P.M. van Zuijlen, H.C.W. de Vet, Jason Brown	POSAS 3.0: refinement of the patient scale using focus groups in Australia and the Netherlands (Australian study arm)
Sarah O'Reilly	Jenny Ziviani, Jenny Strong, Jason Brown	Investigating the use of elastic based tapes for management of hypertrophic scar formation to the upper limb post burn injury
Jason Brown	Mathilde Desselle, Sean Powell, Maureen Ross, Mia Woodruff, Liela Cuttie, Peter Gillies	Herston Biofabrication Institute Burns Program

2018 Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups/ Departments	Project Title	Granting Body	Amount in 2018	Total Amount (years)
Jason Brown , Michelle Donovan, Zephania Tyack, Steven Mcphail	Professor Stuart Pegg Burns Centre		Royal Brisbane and Women's Hospital Foundation		\$39,944 (2018-2019)
Jenny Strong, Sarah O'Reilly, Dale Trevor, Jodie Copley, Tammy Aplin, Joanna Mollison , Nicole Coghlan, Sue Laracy , Jason Brown	Occupational Therapy, Professor Stuart Pegg Burns Centre	The lived experience of pressure garments: An exploration of the partnership between expert consumers and occupational therapists in a tertiary MDT burns centre	Royal Brisbane and Women's Hospital Foundation	\$7,482.40	\$14,964.80 (2018-2019)
Jason Brown , Peter Gillies, Michelle Donovan, Sue Laracy	Professor Stuart Pegg Burns Centre, Herston Biofabrication Institute	Burns Program	Herston Biofabrication Institute	\$500,000.00	\$2499,645 (2018-2023)
Sarah O'Reilly, Jenny Ziviani, Jenny Strong, Jason Brown	Occupational Therapy, Professor Stuart Pegg Burns Centre	Investigating the use of elastic based tapes for management of hypertrophic scar formation to the upper limb post burn injury	CAHRLI	\$2,500	\$5,000 (2018-2019)

2018 Conference Presentations – Invited Speaker, Oral and Poster

Invited Speaker:

1. **Jason Brown** Acclivity Surgical Wound Forum. Innovations in burns wound care. Dubai 2018.

Oral Presentations:

1. **Michelle Donovan**. Interim Pressure Garment Therapy: an investigation into the use of low level pressure therapy for burns donor site support and scar reduction. ANZBA 2018 Brisbane
2. **Megan Grigg, Cienwen Town, Jason Brown**. Donor site dressings: how much do they affect pain? ANZBA 2018 Brisbane
3. **Cienwen Town**, Anaesthetic Block for donor sites, ANBA 2018 Brisbane
4. **Martha Druery**, Psychosocial management to optimise quality of life ANZBA Scientific Meeting 2018, Brisbane
5. **Nicole Coghlan**. The experiences of wearing compression garments post burn injury ANZBA 2018 Brisbane
6. **Mikaela Seymour** The cost of Self Immolation – 20 years of data from RBWH. ANZBA 2018 Brisbane
7. **Jacelle Warren**, Epidemiology of burns patients admitted to the State-wide Adults Burns Service in Queensland: a 10-year Review ANZBA 2018 Brisbane
8. **Amber Jones**. Immersive virtual reality in occupational therapy practice as a non-opioid analgesic during burn wound care procedures. ANZBA 2018 Brisbane
9. **Andrea Mc Kittrick**, a systematic review to investigate outcome tools currently used for patients who have sustained hand burn injuries and to map the psychometric properties of the outcome measures identified from the literature across the ICF. ANZBA 2018 Brisbane
10. **Grace Brownlee**. Best practice management of burns during pregnancy, and our experience over 20 years at a tertiary burns unit. ANZBA 2018 Brisbane.

Trauma Service

2018 Current RBWH Research Group / Department Led Research Activity

RBWH Research Group/ Department Lead Researchers	Collaborative Researchers	Research Project Title
Dr Cameron Ashurst (Trauma, ETC)	Dr Michael Tuppin (DMI)	Injuries following ladder falls presentations to the ED: a retrospective review

2018 Collaborative Research Activity involving RBWH Research Group / Department

Collaborative Lead Researchers	RBWH Researchers	Research Project Title
Bhavik Patel	Michael Rudd, Cliff Pollard	Management of splenic injuries in Qld: Retrospective trend analysis over five years and one-year prospective evaluation of clinical practice guideline implementation

2018 Research Grants – Awarded

Investigators (RBWH staff in bold)	RBWH Research Groups/ Departments	Project Title	Granting Body	Amount in 2018	Total Amount (years)
James Winnearls, Catherine Hurn , Martin Wullschlegler, Anthony Holley	Trauma, ETC, ICU	Fibrinogen Early in Severe Trauma Study (FEISTY)	Emergency Medicine Foundation, Gold Coast Health, National Blood Authority	\$3,000	\$3,000 (2018)

2018 Research Publications

Journal Articles:

1. Ryan, Glenn; Swift, Kate; **Williamson, Frances; Zheng, Olivia**; Scriven, Elissa; Eley, Robert. Feasibility of REBOA (Resuscitative Endovascular Balloon Occlusion of the Aorta) in trauma-related non-compressible torso haemorrhage across two South-East Queensland (Brisbane) metropolitan Major Trauma Centres (The Ochsner Journal).

2018 Conference Presentations – Invited Speaker, Oral and Poster

Invited Speaker:

1. **Williamson F**, Hacking C, Coulthard L, Wall D. ASER 30th Anniversary Annual Meeting, September 2018, Virginia, USA.

Oral Presentations:

1. **Handy M, Williamson F, Jackman K**. Performing the tertiary survey: a comparison of medical officer and trauma nurse. Queensland Trauma Symposium. Brisbane, February 2018
2. **Handy M**, Wullschlegler M, Cleland P, Wall D. Delayed diagnosis: impact on patient management and quality improvement. Nursing and Midwifery Conference. Brisbane, March 2018
3. **Jackman K, Williamson F, Handy M**. Performing the tertiary survey: a comparison of medical officer and trauma nurse. Nursing and Midwifery Conference. Brisbane, March 2018
4. **Patel B, Handy M, Wall D**. Eleven-year experience with management of Thoracic injuries at a non-cardiac centre. Singapore Trauma and Acute Care Conference. Singapore, April 2018
5. **Rudd M**. Murray Clark Oration. Australian and New Zealand Burn Association Annual Scientific Meeting. Brisbane, 16-19 October 2018.

Poster Presentations:

1. Bodnar D, Stevens Z, Williams S, **Handy M**, Rashford S. A description of the first hospital laboratory test results of the trauma patients administered packed red blood cells in the civilian pre-hospital environment, Poster Number: PP01. Queensland Trauma Symposium. Brisbane, February 2018
2. Bodnar D, Rashford S, **Handy M**, Bosley E. Trauma Ultrasound in the Pre-Hospital Environment (TUPHEN Study). Poster Number: PP03. Queensland Trauma Symposium. Brisbane, February 2018
3. **Handy M, Wall D**, Cleland P. Injury severity of Kite surfers attending hospitals in Metro North Hospital and Health Service. Poster Number: PP05. Queensland Trauma Symposium. Brisbane, February 2018
4. Wake E, Czuchwicki S, Walters K, Tallott M, Judge C, Meyer J, **Handy M**, Jones L. FEISTY recruitment of patients in a Multi-centre study. Poster Number: PP07. Queensland Trauma Symposium. Brisbane, February 2018
5. **Patel B, Handy M, Pollard C, Wall D, Muller M**. Category Zero – The Red Blanket Protocol. Reducing the transfer delay of the trauma patient from the Emergency Department to the operating Room. Poster Presentation. Singapore Trauma and Acute Care Conference. Singapore, April 2018.