



Health
Northern Sydney
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**SURGICAL EDUCATION
RESEARCH & TRAINING
INSTITUTE**

RNSH DIVISION OF SURGERY & ANAESTHESIA

**RESEARCH ACTIVITY REPORT
2021 - 2022**

AUTHOR: RNSH SERT INSTITUTE

Acknowledgements:

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EXECUTIVE SUMMARY

This report provides a comprehensive overview of the research activity undertaken by clinicians in the Division of Surgery and Anaesthesia (DoSA) at Royal North Shore Hospital (RNSH) for 2021 to 2022. This is a follow-up from the inaugural research report published in 2020 which documented the research output of all surgical departments. Following consultation with the DoSA, we have expanded the coverage of the report to encompass the Anaesthesia Department (including Allergy Clinic and Acute Pain Management), Intensive Care Unit and the Trauma Service.

At the centre of every clinician's work is a commitment to enhancing care in pursuit of optimal patient outcomes. Within the DoSA, research includes the exploration of novel medical and surgical methodologies and techniques, collaborative translational investigations, and the improvement of existing practices through rigorous data analysis and clinical audits.

The approach used to produce this report involved a systematic search of peer-reviewed publications authored by RNSH clinicians followed by direct correspondence with the Heads of Departments and Academic Leads to ensure completeness. Each department was also asked to provide additional details regarding current research activities, including involvement with laboratory-based projects and or supervision of higher degree research.

This report highlights the significant volume of research activity and peer-reviewed publications within the DoSA throughout 2021-2022. During this period, a total of 590 manuscripts were published, averaging 295 publications per year. Several departments have also demonstrated a strong focus on translational research, maintaining close affiliations with laboratories within the Kolling Building and external to RNSH, as well as collaborations with local and international universities.

The Research Activity Report is a dynamic document and will be updated annually to reflect new research activity and publications.

I hope you enjoy this report and uncovering some of the remarkable research achievements undertaken at RNSH.



Professor Thomas Hugh

Director, Surgical Education Research & Training Institute



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ANAESTHESIA

(INCLUDES: ALLERGY CLINIC AND ACUTE PAIN MANAGEMENT)

Head of Department: Ben Olesnicky and Jonothon Brock



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Allergy/Australian and New Zealand Anaesthetic Allergy Group
- Trauma
- Perioperative Medicine
- Perioperative Allergy Database

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- Validation of a scoring tool for suspected peri-operative immediate hypersensitivity reactions using case referrals to Royal North Shore peri-operative Allergy Clinic
- Skin testing - in vitro testing and drug provocation testing for diagnosis and management of drug allergy

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- Department of Immunology
- Australian and New Zealand Anaesthetic Allergy Group (ANZAAG)



CURRENT RESEARCH ACTIVITY

Clinical Trials

- Chewy - chewing gum versus ondansetron for post-operative nausea and vomiting in women and girls having laparoscopic or breast surgery
- MASTERSTROKE - Management of Systolic blood pressure during Thrombectomy by Endovascular route for acute ischaemic STROKE
- Investigation of massive transfusion practice and development of an experimental clinical decision support system
- The feasibility of implementing a validated fatigue risk management system for Junior Medical Staff on nightshift
- Long-term Outcomes of Lidocaine Infusions for PostOperative Pain (LOLIPOP)
- Orthostatic hypotension in the post anaesthesia care unit as a predictor for delayed mobilisation post lower limb arthroplasty
- Validation of a scoring tool for suspected peri-operative immediate hypersensitivity reactions using case referrals to Royal North Shore peri-operative Allergy Clinic
- Perioperative analgesia for major abdominal surgery
- Opioid neuraxial analgesia for major open abdominal surgery: a feasibility study using a combination of intrathecal and epidural morphine
- Rib fracture intervention study

Clinical Research

- Perioperative anaphylaxis validation study
- PICC line service utilisation database
- Code crimson activation and outcomes study
- Acute rib fracture management study
- Linking data between perioperative drug allergy services in the ANZAAG network
- Development of cost-efficient and effective intravenous drug challenge protocols in perioperative drug allergy
- Drug test dose and desensitisation protocol development using a proportional delivery syringe driver system
- Assessment of maximal non-irritant concentrations of cisatracurium in intradermal drug allergy testing
- Evaluation of clinical scoring tools to assist diagnosis and triage in perioperative allergy
- Penicillin allergy de-labelling in the pre-operative period
- Linking tryptase levels to drug reaction severity



PUBLICATIONS

2022

Magee et al. **2022** "A Digital Video and Text Messaging Intervention to Support People With Chronic Pain During Opioid Tapering: Content Development Using Co-design." **JMIR Form Res** 6: e40507 PMID:36355415 Surgical Staff: **Paul Glare**

Koneru et al. **2022** "Patient-controlled analgesia and oral mucositis pain in hematological malignancies." **J Opioid Manag** 18: 309-316 PMID:36052929 Surgical Staff: **Matthew Doane, Gavin Pattullo, Ross MacPherson**

Olesnicky et al. **2022** "Prevention of Postoperative Events following Reversal with Sugammadex or Neostigmine (the P-PERSoN Trial): Pilot Data Following Early Termination of a Prospective, Blinded, Randomised Trial." **Anesthesiol Res Pract** 2022: 4659795 PMID:35844810 Surgical Staff: **Ben Olesnicky, Matthew Doane**

Pirie et al. **2022** "Current approaches to acute postoperative pain management after major abdominal surgery: a narrative review and future directions." **Br J Anaesth** 129: 378-393 PMID:35803751 Surgical Staff: **Damien Finniss**

Hayashi et al. **2022** "A Systematic Review of the Variation in Pain Catastrophizing Scale Reference Scores Based on Language Version and Country in Patients with Chronic Primary (Non-specific) Pain." **Pain Ther** 11: 753-769 PMID:35567720 Surgical Staff: **Paul Wrigley**

Magee et al. **2022** "Evaluating acceptability and feasibility of a mobile health intervention to improve self-efficacy in prescription opioid tapering in patients with chronic pain: protocol for a pilot randomised, single-blind, controlled trial." **BMJ Open** 12: e057174 PMID:35473742 Surgical Staff: **Paul Glare**

Baldo et al. **2022** "Mechanisms of opioid-induced respiratory depression." **Arch Toxicol** 96: 2247-2260 PMID:35471232 Surgical Staff: **Michael Rose**

Tran et al. **2022** "An Exploratory EEG Analysis on the Effects of Virtual Reality in People with Neuropathic Pain Following Spinal Cord Injury." **Sensors (Basel)** 22: 2629 PMID:35408245 Surgical Staff: **Paul Wrigley**

Avery et al. **2022** "Efficacy of interventions to reduce long term opioid treatment for chronic non-cancer pain: systematic review and meta-analysis." **BMJ** 377: e066375 PMID:35379650 Surgical Staff: **Rebecca Martin, Paul Glare**

Glare et al. **2022** "Pharmacologic Management of Persistent Pain in Cancer Survivors." **Drugs** 82: 275-291 PMID:35175587 Surgical Staff: **Paul Glare**

Thind et al. **2022** "Whole genome analysis reveals the genomic complexity in metastatic cutaneous squamous cell carcinoma." **Front Oncol** 12: 919118 PMID:35982973 Surgical Staff: **Ajaypal Thind**

Pirie et al. **2022** "Analgesia for major laparoscopic abdominal surgery: a randomised feasibility trial using intrathecal morphine." **Anaesthesia** 77: 428-437 PMID:35038165 Surgical Staff: **Matthew Doane**

Olesnicky et al. **2022** "The use of sugammadex in critical events in anaesthesia: A retrospective review of the webAIRS database." **Anaesth Intensive Care** 50: 220-226 PMID:35172631 Surgical Staff: **Ben Olesnicky**

Collantes, et al. **2022** "Essential Notes in Pain Medicine." **Oxford University Press Print** ISBN: 9780198799443 Surgical Staff: **Enrique Collantes Celador**

Corcoran TB et al **2022** "Dexamethasone and Surgical-Site Infection" **NEJM** 384: 1731-1741 PMID:33951362 Surgical Staff: **Ben Olesnicky**

Pattullo **2022** "Opioids in acute pain: Towards getting the right balance" **Anaesthesia & Intensive Care** 50: 68-80
PMID:35112598 Surgical Staff: **Gavin Pattullo**

Pattullo **2022** "Clinical implications of opioid-induced ventilatory impairment" **Anaesthesia & Intensive Care** 50: 52-67
PMID:35189729 Surgical Staff: **Gavin Pattullo**

2021

Benness et al. **2021** "Selection of prize session abstracts presented at the 2021 Virtual Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, April 27–May 4 2021, Melbourne, Australia" **Anaesth Intensive Care**: 1-16
PMID:34878927 Surgical Staff: **Matthew Doane**

Dutta et al. **2021** "Metabolite signatures of heart failure, sleep apnoea, their interaction, and outcomes in the community." **ESC Heart Fail** 8: 5392-5402 PMID:34657379 Surgical Staff: **Andy Wang**

Eastwood et al. **2021** "Psychosocial stratification of antenatal indicators to guide population-based programs in perinatal depression." **BMC Pregnancy and Childbirth** 21: 277 PMID:33823838 Surgical Staff: **Andy Wang**

Evers et al. **2021** "What Should Clinicians Tell Patients about Placebo and Nocebo Effects? Practical Considerations Based on Expert Consensus." **Psychotherapy and Psychosomatics** 90: 49-56 PMID:33075796 Surgical Staff: **Damien Finnis**

Fernando et al. **2021** "Pharmacovigilance for chlorhexidine anaphylaxis: a preventable adverse reaction" **Med J Aust** 214: 162-163 PMID:33527357 Surgical Staff: **Mark Capon, Sarah Green**

Prisim Trial Group **2021** "Postoperative continuous positive airway pressure to prevent pneumonia, re-intubation, and death after major abdominal surgery (PRISM): a multicentre, open-label, randomised, phase 3 trial" **Lancet Respi Med** 9: 1221-1230 PMID:34153272 Surgical Staff: **Katrina Pirie**

Menon et al. **2021** "Has the reporting of patient-important outcomes improved in surgical trials? A meta-epidemiological study." **ANZ J Surg** 91: 2014-2020 PMID:33982387 Surgical Staff: **Andy Wang**

Olesnicky et al. **2021** "A survey of current management of neuromuscular block and reversal in Australia and New Zealand" **Anaesth Intensive Care** 49: 309-315 PMID:34372679 Surgical Staff: **Ben Olesnicky**

Qurashi et al. **2021** "Overnight or Short Stay Joint Replacements in the Public and Private settings: An Australian Experience." **Reconstructive Review**: Surgical Staff: **Bill Bestic**

Rogers et al. **2021** "Teaching medical students during clinical anaesthesia placements: Australian and New Zealand College of Anaesthetists, 2021." **Australasian Anaesthesia**: Surgical Staff: **Ross MacPherson**

Schmid et al. **2021** "Two case studies of cardiac arrest occurring in medically fit patients undergoing radical hysterectomy for cervical cancer" **Gynecol Oncol Rep** 37:100823 PMID:34377756 Surgical Staff: **Leonie Watterson**

Van Zundert et al. **2021** "2021 Update on airway management from the Anaesthesia Continuing Education Airway Management Special Interest Group" **Anaesthesia & Intensive Care** 49: 257-267 PMID:34154374 Surgical Staff: **Geraldine Khong, Adam Rehak**

ACUTE SURGICAL UNIT

Head of Department: Rebecca Seton



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Acute Surgical Unit Database
- Acute Surgical Unit QoR 15
- Acute Surgical Unit Impact Cohort
- Acute Surgical Unit Patient Management Work Instructions

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- STE15169 – Evaluating the use of the American College of Surgeons National Surgical Quality Improvement Program (NSQIP) - surgical risk calculator in predicting mortality in an Acute Surgical Unit and how it has assisted in the management of patients deemed to be at high risk of post-operative mortality
- STE16869 – American College of Surgeons National Surgical Quality Improvement Program - comparison between NSQIP risk calculator and NSQIP adult with aim of determining accuracy of risk calculator in the Australian population in emergency surgery



CURRENT RESEARCH ACTIVITY

- Comparison between NSQIP risk calculator and NSQIP adult with aim of determining accuracy of risk calculator in the Australian population in emergency surgery
- Adhesional SBO management
- COVID-19 testing using antibody test kits
- ASU anti-microbial stewardship

BREAST AND MELANOMA SURGERY

Head of Department: Katrina Moore



RESEARCH SUPERVISION (2021-2022)

Katrina Moore

- Senior Lecturer, University of Sydney

Education and Teaching Modules:

- Supervisor, Medical Student Program – Oncology Block, University of Sydney
- Supervisor, Accredited Registrar Training Program, University of Sydney

Samitri Sood

- Master of Surgery, University of Sydney

Education and Teaching Modules:

- Teaching and Course Coordinator, Advanced Surgery of the Breast - Master of Surgery, University of Sydney

Andrew Spillane

- Master of Surgery, University of Sydney

Education and Teaching Modules:

- Teaching and Head of Course, Advanced Surgery of the Breast - Master of Surgery, University of Sydney



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Breast High Risk Database
- Breast Total Practice Audit
- BreastSurgANZ Quality Audit (BQA)
- Melanoma Research Database (MRD) - Melanoma Institute Australia

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- EXPERT Study
- WinPRO Study
- iBREAST Study
- QoLID Study
- BRCA Study

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- Melanoma Institute Australia
- University of Sydney – Discipline of Surgery
- Kolling Research Institute



CURRENT RESEARCH ACTIVITY

- Clinical and laboratory-based research in melanoma and breast cancer
- Retrospective study on loco-regional recurrence and functional outcomes following axillary treatment in early node positive breast cancer
- Outcomes of targeted axillary clearance in early node positive breast cancer following neoadjuvant chemotherapy
- Breast screening in patients with neurofibromatosis
- Staging investigations in high-risk patients and their subsequent follow-up
- Development of a multidisciplinary and functional breast database for northern campus



PUBLICATIONS

2022

Dempsey et al. **2022** "Embedding electronic patient-reported outcome measures into routine care for patients with stage III MELanoma (ePROMs-MEL): protocol for a prospective, longitudinal, mixed-methods pilot study." **BMJ Open** 12: e066852 PMID:36600423 Surgical Staff: **Andrew Spillane**

Winder et al. **2022** "Radio-isotope occult lesion localization (ROLL) techniques to identify the clipped node for targeted axillary dissection (TAD) in breast cancer." **ANZ J Surg** 92: 3017-3021 PMID:36262092 Surgical Staff: **Andrew Spillane, Samriti Sood, Kylie Snook**

Smith et al. **2022** "Factors influencing acceptance, adoption and adherence to sentinel node biopsy recommendations in the Australian Melanoma Management Guidelines: a qualitative study using an implementation science framework." **Implement Sci Commun** 3: 103 PMID:36183121 Surgical Staff: **Andrew Spillane**

Simpson et al. **2022** "Diet-driven microbial ecology underpins associations between cancer immunotherapy outcomes and the gut microbiome." **Nat Med** 28: 2344-2352 PMID:36138151 Surgical Staff: **Andrew Spillane**

Newell et al. **2022** "Comparative Genomics Provides Etiologic and Biological Insight into Melanoma Subtypes." **Cancer Discov** 12: 2856-2879 PMID:36098958 Surgical Staff: **Andrew Spillane**

Conway et al. **2022** "Unveiling the tumor immune microenvironment of organ-specific melanoma metastatic sites." **J Immunother Cancer** 10: e004884 PMID:36096531 Surgical Staff: **Andrew Spillane**

Seviiri et al. **2022** "Higher polygenic risk for melanoma is associated with improved survival in a high ultraviolet radiation setting." **J Transl Med** 20: 403 PMID:36064556 Surgical Staff: **Andrew Spillane**

Lawless et al. **2022** "ASO Visual Abstract: Clinicopathological Characteristics Predicting Further Recurrence and Survival Following Resection of In-transit Melanoma Metastases." **Ann Surg Oncol** 29: 7031-7032 PMID:35994160 Surgical Staff: **Andrew Spillane**

Ofri et al. **2022** "Synchronous Operable Pancreatic and Breast Cancer Without Genetic Mutation: A Literature Review and Discussion." **Front Surg** 9: 858349 PMID:35813042 Surgical Staff: **Samriti Sood, Jaswinder Samra, Anubhav Mittal**

Lawless et al. **2022** "Clinicopathological Characteristics Predicting Further Recurrence and Survival Following Resection of In-Transit Melanoma Metastases." **Ann Surg Oncol** 29: 7019-7028 PMID:35771368 Surgical Staff: **Andrew Spillane**

Reijers et al. **2022** "Personalized response-directed surgery and adjuvant therapy after neoadjuvant ipilimumab and nivolumab in high-risk stage III melanoma: the PRADO trial." **Nat Med** 28: 1178-1188 PMID:35661157 Surgical Staff: **Andrew Spillane**

van Akkooi et al. **2022** "Correction to: Neoadjuvant Systemic Therapy (NAST) in Patients with Melanoma: Surgical Considerations by the International Neoadjuvant Melanoma Consortium (INMC)." **Ann Surg Oncol** 29: 5241-5242 PMID:35426590 Surgical Staff: **Andrew Spillane**

Metz et al. **2022** "Breast Radiotherapy after Oncoplastic Surgery-A Multidisciplinary Approach." **Cancers (Basel)** 14:1685 PMID:35406457 Surgical Staff: **Kylie Snook, Samriti Sood, Andrew Spillane**

El Sharouni et al. **2022** "Time interval between diagnostic excision-biopsy of a primary melanoma and sentinel node biopsy: effects on the sentinel node positivity rate and survival outcomes." **Eur J Cancer** 167: 123-132 PMID:35256245 Surgical Staff: **Andrew Spillane**

El Sharouni et al. **2022** "Effect of the time interval between melanoma diagnosis and sentinel node biopsy on the size of metastatic tumour deposits in node-positive patients." **Eur J Cancer** 167: 133-141 PMID:35216870 Surgical Staff: **Andrew Spillane**

Reijers et al. **2022** "Representativeness of the Index Lymph Node for Total Nodal Basin in Pathologic Response Assessment After Neoadjuvant Checkpoint Inhibitor Therapy in Patients With Stage III Melanoma." **JAMA Surg** 157: 335-342 PMID:35138335 Surgical Staff: **Andrew Spillane**

van Akkooi et al. **2022** "Neoadjuvant Systemic Therapy (NAST) in Patients with Melanoma: Surgical Considerations by the International Neoadjuvant Melanoma Consortium (INMC)." **Ann Surg Oncol** 29: 3694-3708 PMID:35089452 Surgical Staff: **Andrew Spillane**

Newell et al. **2022** "Multiomic profiling of checkpoint inhibitor-treated melanoma: Identifying predictors of response and resistance, and markers of biological discordance." **Cancer Cell** 40: 88-102.e7 PMID:34951955 Surgical Staff: **Andrew Spillane**

Scolyer et al. **2022** "BRAF mutation testing for patients diagnosed with stage III or stage IV melanoma: practical guidance for the Australian setting." **Pathology** 54: 6-19 PMID:34937664 Surgical Staff: **Andrew Spillane**

Liyanage et al. **2022** "Multi-Trait Genetic Analysis Identifies Autoimmune Loci Associated with Cutaneous Melanoma." **J Invest Dermatol** 142: 1607-1616 PMID:34813871 Surgical Staff: **Andrew Spillane**

Dempsey et al. **2022** "The role of breast reconstruction choice on body image patient-reported outcomes at four years post-mastectomy for breast cancer: A longitudinal prospective cohort study." **Psychooncology** 31: 54-61 PMID:34498358 Surgical Staff: **Kylie Snook, Andrew Spillane**

Crook et al. **2022** "The psychological impact and experience of breast cancer screening in young women with an increased risk of breast cancer due to neurofibromatosis type 1." **Fam Cancer** 21: 241-253 PMID:33963463 Surgical Staff: **Katrina Moore**

2021

Downs et al. **2021** "A survey of surgical management of the sentinel node positive melanoma patient in the post-MSLT2 era." **J Surg Oncol** 124: 1544-1550 PMID:34406652 Surgical Staff: **Andrew Spillane**

Aivazian et al. **2021** "Correction to: Histological regression in melanoma: impact on sentinel lymph node status and survival." **Mod Pathol** 34: 2091 PMID:34349230 Surgical Staff: **Andrew Spillane**

Li et al. **2021** "Survival Outcomes of Salvage Metastasectomy After Failure of Modern-Era Systemic Therapy for Melanoma." **Ann Surg Oncol** 28: 6109-6123 PMID:34347220 Surgical Staff: **Andrew Spillane**

Aivazian et al. **2021** "Histological regression in melanoma: impact on sentinel lymph node status and survival." **Mod Pathol** 34: 1999-2008 PMID:34247192 Surgical Staff: **Andrew Spillane**

Ch'ng et al. **2021** "Re-defining the role of surgery in the management of patients with oligometastatic stage IV melanoma in the era of effective systemic therapies." **Eur J Cancer** 153: 8-15 PMID:34126335 Surgical Staff: **Andrew Spillane**

Rawson et al. **2021** "Pathological response and tumour bed histopathological features correlate with survival following neoadjuvant immunotherapy in stage III melanoma." **Ann Oncol** 32: 766-777 PMID:33744385 Surgical Staff: **Andrew Spillane**

Thompson et al. **2021** "Treatment of in-transit melanoma metastases using intralesional PV-10." **Melanoma Res** 31: 232-241 PMID:33741814 Surgical Staff: **Andrew Spillane**

Menzies et al. **2021** "Pathological response and survival with neoadjuvant therapy in melanoma: a pooled analysis from the International Neoadjuvant Melanoma Consortium (INMC)." **Nat Med** 27: 301-309 PMID:33558722 Surgical Staff: **Andrew Spillane**

Rozeman et al. **2021** "Survival and biomarker analyses from the OpACIN-neo and OpACIN neoadjuvant immunotherapy trials in stage III melanoma." **Nat Med** 27: 256-263 PMID:33558721 Surgical Staff: **Andrew Spillane**

Abd El-Aziz et al. **2021** "Role of ABCB1 in mediating chemoresistance of triple-negative breast cancers." **Biosci Rep** 41:2 PMID:33543229 Surgical Staff: **Andrew Spillane**

Maw et al. **2021** "Case Report of 18F-FDG PET/CT Features of Polyacrylamide Hydrogel Mammoplasty." **Clin Nucl Med** 46: e206-e207 PMID:33208622 Surgical Staff: **Samriti Sood**

BURNS, PLASTICS & RECONSTRUCTIVE SURGERY

Head of Department: Rowan Gillies



RESEARCH SUPERVISION (2021-2022)

Varun Harish

- Supervisor, MD Program, University of Sydney
- Supervisor, Master of Surgery, University of Sydney
- Supervisor, MD Applied Research Project, University of Notre Dame



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- State-wide Burn Injury Service (SBIS) Registry
- Burns Registry Australia & New Zealand (BRANZ)
- Plastic Surgery Department REDCap Database

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- Skin neoplasia – clinical and pathologic aspects in diagnosis and management of skin tumours in the Australian population
- Hypothermia in burn injuries
- The effect of indocyanine green video angiography on short-term and long-term clinical outcomes in burn injuries: a randomised controlled trial



CURRENT RESEARCH ACTIVITY

- Pleomorphic dermal sarcoma: the effect of surgical and histological margins on clinical outcomes
- Histological margin clearance in cutaneous squamous cell carcinoma
- Cost-benefit analysis of Novosorb BTM in burn injuries
- The impact of core body temperature on clinical outcomes in severe burn injuries
- Treatment of atypical lipomatous tumours: a systematic review



PUBLICATIONS

2022

Soliman et al. **2022** "Laparoscopic-assisted deep inferior epigastric artery perforator (DIEP) flap in breast reconstruction." **ANZ J Surg** 92: 2365-2367 PMID:35075753 Surgical Staff: **Bishoy Soliman, Varun Harish**

Jung et al. **2022** "Management strategies for perioperative anaemia in the severely burn-injured Jehovah's Witness patients who decline a blood transfusion." **Burns: Journal of the International Society for Burn Injuries** 49:716-729 PMID: 35941026 Surgical Staff: **Varun Harish, Rowan Gillies**

Haines et al. **2022** "The burn injury transfer feedback form: A 16-year Australian statewide review of burn inter-hospital transfer." **Burns: Journal of the International Society for Burn Injuries** 49: 961-972 PMID: 35728985 Surgical Staff: **Bishoy Soliman, Shane O'Neill, Jeon Cha, John Vandervord, Varun Harish**

Wright et al. **2022** "Suprafascial first dorsal metatarsal artery perforator propeller flap" **Australasian Journal of Plastic Surgery** 5: 74-76 Surgical Staff: **Varun Harish**

2021

Haines et al. **2021** "Treating the burnt auricle using Biobrane." **ANZ J Surg** 91: 453-454 PMID:33740300 Surgical Staff: **Jeon Cha**

Cubitt et al. **2021** "Mandibular distraction osteogenesis for Pierre Robin sequence: The Sydney experience." **J Plast Reconstr Aesthet Surg** 74: 890-930 PMID:33162386 Surgical Staff: **Robert Gates**

Aggarwala et al. **2021** "Treatment of Partial Thickness Burns: A Prospective, Randomized Controlled Trial Comparing Four Routinely Used Burns Dressings in an Ambulatory Care Setting." **J Burn Care Res** 42: 934-943 PMID:32930784 Surgical Staff: **Varun Harish**

CARDIOTHORACIC SURGERY

Head of Department: Michael Harden



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Australian & New Zealand Society of Cardiac and Thoracic Surgeons (ANZSCTS) National Database
- RNSH Cardiovascular Surgery Database
- Implantable Cardiac Device Database

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- A randomised control trial of axillary artery cannulation versus standard aortic cannulation for aortic valve replacement
- 2019/ETH12555: A study of flow dynamics in Coronary Artery Bypass Grafts developing a model to predict the flow based on which conduit, coronary distribution, and graft configuration



CURRENT RESEARCH ACTIVITY

- Enhanced Recovery After Surgery (ERAS) protocol - collaborative project to optimise perioperative care of cardiac surgical patients
- AI tool development for predicting cardiothoracic ward patients that are likely to deteriorate (with Sydney Adventist Hospital)
- Development of a RNSH implantable cardiac device database to record all cases performed
- Long term follow up (10-15 years) of off-pump arterial grafts and projects related to assessing and improving off-pump surgery
- Bio-printing of human cardiac patches to improve heart regeneration
- Evaluating use of aortic cannulation in valve replacement
- Investigating axillary inflow cerebral injury in patients undergoing aortic valve replacement
- Vascular leak associated micro-RNA in cardiovascular surgery
- Determining trans-catheter aortic valve implantation outcomes in low-risk patients



PUBLICATIONS

2022

Manuel et al. **2022** "LIMA to LAD grafting returns patient survival to age-matched population: 20-year outcomes of MIDCAB surgery." **Interact Cardiovasc Thorac Surg** 35:4 PMID:36130278 Surgical Staff: **Levi Bassin**

Khuong et al. **2022** "Paraprotein associated heparin resistance during cardiopulmonary bypass." **Perfusion** 38:1319-1321 PMID:35700111 Surgical Staff: **Levi Bassin**

Porwal et al. **2022** "Atypical Presentation of Acute Mitral Regurgitation Secondary to Papillary Muscle Rupture." **Cureus** 14: e24744 PMID:35676997 Surgical Staff: **Manu Mathur**

Caterson et al. **2022** "Post-operative outcomes of inflammatory thoracic aortitis: a study of 41 patients from a cohort of 1119 surgical cases." **Clin Rheumatol** 41: 1219-1226 PMID:34731347 Surgical Staff: **David Marshman**

2021

Gunawan et al. **2021** "In patients with lung cancer is combined endobronchial ultrasound and endoscopic ultrasound superior to conventional mediastinoscopy in staging the mediastinum?" **Ann Med Surg (Lond)** 71: 102953 PMID:34712479 Surgical Staff: **Levi Bassin**

Bell et al. **2021** "A Trend-Based Early Warning Score Can Be Implemented in a Hospital Electronic Medical Record to Effectively Predict Inpatient Deterioration." **Crit Care Med** 49: e961-e967 PMID:33935165 Surgical Staff: **Levi Bassin**

Allahwala et al. **2021** "Both surgical and percutaneous revascularization improve prognosis in patients with a coronary chronic total occlusion (CTO) irrespective of collateral robustness." **Heart Vessels** 36: 1653-1660 PMID:33914092 Surgical Staff: **Levi Bassin**

Cullen et al. **2021** "Post-Dissection Single-Stage Arch and Descending Aorta Replacement via Clamshell Incision." **Heart Lung Circ** 30: e68-e71 PMID:33589400 Surgical Staff: **Manu Mathur**

Chen et al. **2021** "Salvage thoracotomy for atraumatic tension haemothorax in a patient with neurofibromatosis type 1: an Australian experience." **ANZ J Surg** 91: E419-E420 PMID:33236494 Surgical Staff: **Levi Bassin**

Manuel et al. **2021** "Robotic approach to the porcelain aorta: staged transcatheter aortic valve replacement and robotically assisted coronary artery bypass." **ANZ J Surg** 91: E128-E129 PMID:33107164 Surgical Staff: **Levi Bassin**

COLORECTAL SURGERY

Head of Department: Alexander Engel



RESEARCH SUPERVISION (2021-2022)

Alexander Engel

- 3 PhD Students
- 2 Master Students
- 4 MD Research Students

Margaret Schnitzler

- 3 PhD Students

Education and Teaching Modules:

- Co-Director of MD Education Specialty of Surgery



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- RNSH Colorectal Audit
- Bi-National Colorectal Cancer Audit (BCCA)
- Colorectal Cancer Surgical Pathology Database
- IMAP Colorectal Polyp Study
- Diverticulitis Recurrence
- Diverticulosis/-itis CT Diagnosed
- PR Bleeding

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- ETH08162 - Analysis of patients presenting with haematochezia/PR bleeding at a single centre
- ETH01264 - CT and clinical correlation of diverticulitis severity
- ETH00301 - IMAP Study - Integrative Molecular Analysis of Polyps
- HREC/17/RPAH/542 - Hide and Seek: MDT advice and subsequent genetic counselling for suspected Lynch syndrome

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- University of Sydney Nano Institute
- University of Sydney Charles Perkins Centre
- University of NSW Nano Photonics Institute



CURRENT RESEARCH ACTIVITY

- Outcome of primary repair of obstetric sphincter rupture
- Classification of intra-operative complications
- Nanotechnology and improvement in diagnosis and management of CRC lymph node metastasis
- Photodynamic therapy in combination with low dose radiotherapy as an alternative to chemoradiation in advanced and recurrent rectal cancer
- Integrative molecular classification of colorectal polyps
- Molecular signature of lymph node metastasis in early colorectal cancer
- New classification of large bowel diverticulitis
- Understanding the pathophysiology, diagnostics and management of lower GI bleeding
- Assessing and improving emotional intelligence in surgeons and surgical trainees
- Muscle map (convolutional neural network) of the pelvic floor
- Obstetric anal sphincter injury
- Novel therapies and investigations in anorectal disorders



PUBLICATIONS

2022

Sarofim et al. **2022** "A new hernia: Meckel's diverticulum within a parastomal hernia." **J Surg Case Rep** 2022: rjac398 PMID:36324763 Surgical Staff: **Shahrir Kabir**

Sang et al. **2022** "Lipid-polymer nanocarrier platform enables X-ray induced photodynamic therapy against human colorectal cancer cells." **Biomed Pharmacother** 155: 113837 PMID:36271586 Surgical Staff: **Alexander Engel**

Li et al. **2022** "Deep Sequencing of Early T Stage Colorectal Cancers Reveals Disruption of Homologous Recombination Repair in Microsatellite Stable Tumours with High Mutational Burdens." **Cancers (Basel)** 14: 2933 PMID:35740599 Surgical Staff: **Alexander Engel**

Steinberg et al. **2022** "Lynch syndrome testing of colorectal cancer patients in a high-income country with universal healthcare: a retrospective study of current practice and gaps in seven Australian hospitals." **Hered Cancer Clin Pract** 20: 18 PMID:35509103 Surgical Staff: **Alexander Engel**

Gugusheff et al. **2022** "Population-level utilisation of neoadjuvant radiotherapy for the treatment of rectal cancer." **J Surg Oncol** 126: 322-329 PMID:35362557 Surgical Staff: **Alexander Engel**

Toh et al. **2022** "Attitudes towards Enhanced Recovery after Surgery (ERAS) interventions in colorectal surgery: nationwide survey of Australia and New Zealand colorectal surgeons." **Langenbecks Arch Surg** 407: 1637-1646 PMID:35275247 Surgical Staff: **Alexander Engel**

Trieu et al. **2022** "Flatus Incontinence and Fecal Incontinence: A Case-Control Study." **Diseases of the Colon & Rectum** 66: 591-597 Surgical Staff: **Margaret Schnitzler**

Malhi et al. **2022** "Tagging psychopathy by being more analytical." **Bipolar Disorders** 25: 162-163 Surgical Staff: **Margaret Schnitzler**

Hoek et al. **2022** "Laparoscopic peritoneal lavage versus sigmoidectomy for perforated diverticulitis with purulent peritonitis: three-year follow-up of the randomised LOLA trial." **Surgical Endoscopy** 36: 7764-7774 Surgical Staff: **Alexander Engel**

Gawria et al. **2022** "Classification of intraoperative adverse events in visceral surgery." **Surgery** 171:1570-1579 Surgical Staff: **Alexander Engel**

Chan DL et al. **2022** "Computed tomography (CT)-defined sarcopenia and myosteatosis are prevalent in patients with neuroendocrine neoplasms (NENs) treated with peptide receptor radionuclide therapy (PRRT)." **European Journal of Clinical Nutrition** 76:143-149 Surgical Staff: **Alexander Engel**

2021

Lyu et al. **2021** "Highly specific detection of KRAS single nucleotide polymorphism by asymmetric PCR/SERS assay." **Analyst** 146: 5714-5721 PMID:34515700 Surgical Staff: **Alexander Engel**

Tse et al. **2021** "Genomic, Microbial and Immunological Microenvironment of Colorectal Polyps." **Cancers (Basel)** 13: 3382 PMID:34298598 Surgical Staff: **Alexander Engel**

Sang et al. **2021** "Liposome technologies towards colorectal cancer therapeutics." **Acta Biomater** 127: 24-40 PMID:33812076 Surgical Staff: **Alexander Engel**

Chan et al. **2021** "Correction: Serum bicarbonate is a marker of peri-operative mortality but is not associated with long term survival in colorectal cancer." **PLoS One** 15(8) PMID: 34351923 Surgical Staff: **Alexander Engel**

Toh et al. **2021** "Bowel Preparation and Oral Antibiotic Agents for Selective Decontamination in Colorectal Surgery: Current Practice, Perspectives, and Trends in Australia and New Zealand, 2019-2020." **Surg Infect (Larchmt)** 22: 836-844 PMID:33761307 Surgical Staff: **Alexander Engel**

Steffen et al. **2021** "Molecular Features of Lymph Node Metastasis in T1/2 Colorectal Cancer from Formalin-Fixed Paraffin-Embedded Archival Specimens." **J Proteome Res** 20: 1304-1312 PMID:33427478 Surgical Staff: **Alexander Engel**

ENDOCRINE

Head of Department: Stanley Sidhu



RESEARCH SUPERVISION (2021-2022)

Anthony Glover

- University of Sydney Supervision of Higher degree research course completed
- Master of Surgery Program Lead
- 4 MD Students
- 1 MPH Student
- 1 BA Student

Stanley Sidhu

- 2 MD Students
- 3 PhD Students

Mark Sywak

- 2 Master of Surgery Students
- 1 MD Student



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Adrenal Surgery Database
- Thyroid/Parathyroid Surgery Database
- Thyroid Cancer
- Follow up Database
- Australian and New Zealand Thyroid Cancer Registry (ANZTCR)

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- Garvan Institute (Genomics)
- Kolling Institute Cancer Genetics
- Sydney University Discipline of Surgery
- School of Biomedical Engineering, University of Technology
- EnGeneIC Pty Ltd



CURRENT RESEARCH ACTIVITY

- Targeted nanoparticle therapy in medullary thyroid cancer and poorly differentiated thyroid cancer
- Noncoding RNAs as diagnostic and therapeutic targets in adrenocortical cancer and neuroendocrine cancers
- A novel covid vaccine for healthy volunteers and immunocompromised cancer patients – a comparative trial
- Measurable outcomes in endocrine surgery to enhance global care
- Garvan and University of Sydney Endocrine Cancer Program (ECP) – integrating endocrine patient care with genomic analysis

- Comparisons of endocrine tumour recurrence
- Studies of the influences of the long non-coding RNAs and micro-RNAs in cancer and cancer therapies
- Study of thyroid cancer patients with distant metastasis (cohort study)
- Alternative splicing and RBM10 mutations in advanced thyroid cancer (cohort study)
- Prospective study of radio-frequency ablation for the management of benign thyroid nodular disease
- Targeted neoadjuvant therapy for locally advanced thyroid cancer
- Prospective study of nerve integrity monitoring in conventional thyroidectomy



PUBLICATIONS

2022

Lawless et al. **2022** "Refractory Riedel's thyroiditis managed with low dose radiotherapy." **Rep Pract Oncol Radiother** 27: 591-592 PMID:36186699 Surgical Staff: **Alex Papachristos, Stanley Sidhu**

Perrier et al. **2022** "Surgical Aspects of Primary Hyperparathyroidism." **J Bone Miner Res** 37: 2373-2390 PMID:36054175 Surgical Staff: **Mark Sywak**

Chui et al. **2022** "Unexpected deaths after endocrine surgery: learning from rare events using a national audit of surgical mortality." **Br J Surg** 109: 1164-1171 PMID:35927948 Surgical Staff: **Alex Papachristos, Stanley Sidhu, Mark Sywak, Anthony Glover**

Papachristos et al. **2022** "Outcomes of Papillary Thyroid Microcarcinoma Presenting with Palpable Lateral Lymphadenopathy." **Thyroid** 32: 1086-1093 PMID:35703333 Surgical Staff: **Alex Papachristos, Mark Sywak, Stanley Sidhu, Anthony Glover**

Papachristos et al. **2022** "Thyroidectomy in Australia 2022: lessons from 21,000 consecutive cases." **ANZ J Surg** 92: 1626-1630 PMID:35689169 Surgical Staff: **Alex Papachristos, Anthony Glover, Mark Sywak, Stanley Sidhu**

Wijewardene et al. **2022** "A Retrospective Cohort Study with Validation of Predictors of Differentiated Thyroid Cancer Outcomes." **Thyroid** 32: 1201-1210 PMID:35620896 Surgical Staff: **Anthony Glover, Mark Sywak, Stanley Sidhu**

Thwin et al. **2022** "Applying the 'three buckets' theory of situational awareness to surgical training: an updated framework." **ANZ J Surg** 92: 1498-1501 PMID:35488464 Surgical Staff: **Anthony Glover**

Wei et al. **2022** "Factors That Inform Individual Decision Making Between Active Surveillance, Hemithyroidectomy and Total Thyroidectomy for Low-Risk Thyroid Cancer: A Scoping Review." **Thyroid** 32: 807-818 PMID:35438545 Surgical Staff: **Anthony Glover**

Jonker et al. **2022** "Intraoperative MET-receptor targeted fluorescent imaging and spectroscopy for lymph node detection in papillary thyroid cancer: novel diagnostic tools for more selective central lymph node compartment dissection." **Eur J Nucl Med Mol Imaging** 49: 3557-3570 PMID:35389070 Surgical Staff: **Mark Sywak**

Leong et al. **2022** "The prognostic Impact of Extent of Vascular Invasion in Follicular Thyroid Carcinoma." **World J Surg** doi: 10.1007/s00268-022-06696-6 Surgical Staff: **Anthony Glover, Mark Sywak, Stan Sidhu**

Papachristos et al. **2022** "ASO Author Reflections: Medullary Thyroid Cancer-Establishing Treatment Paradigms in a Rapidly Evolving Therapeutic Landscape." **Ann Surg Oncol** 29: 72-73 PMID:34739638 Surgical Staff: **Alex Papachristos, Anthony Glover, Stanley Sidhu**

Xu et al. **2022** "International Medullary Thyroid Carcinoma Grading System: A Validated Grading System for Medullary Thyroid Carcinoma." **J Clin Oncol** 40: 96-104 PMID:34731032 Surgical Staff: **Anthony Glover, Alex Papachristos**

Vikneson et al. **2022** "Tumour volume is a predictor of lymphovascular invasion in differentiated small thyroid cancer." **Endocr Oncol** 2: 42-49 PMID: 37435463 Surgical Staff: **Alex Papachristos, Mark Sywak, Anthony Glover, Ahmad Aniss**

Kesby et al. **2022** "Outcomes of Advanced Medullary Thyroid Carcinoma in the Era of Targeted Therapy." **Ann Surg Oncol** 29: 64-71 PMID:34716515 Surgical Staff: **Alex Papachristos, Mark Sywak, Stanley Sidhu, Anthony Glover**

Sidhu et al. **2022** "Long-Term Cure of Primary Hyperparathyroidism After Scan-Directed Parathyroidectomy: Outcomes from a UK Endocrine Surgery Unit." **World J Surg** 46: 2195-2196 PMID:35672587 Surgical Staff: **Stanley Sidhu**

Wang et al. **2022** "Genotype-Phenotype Correlations and Clinical Outcomes in 155 Cases of Pheochromocytoma and Paraganglioma." **World Journal of Surgery** 1-9 Surgical Staff: **Alex Papachristos, Anthony Glover, Mark Sywak, Stan Sidhu, Ahmad Aniss**

Vikneson et al. **2022** "Tumour volume is a predictor of lymphovascular invasion in small, differentiated thyroid microcarcinoma." *Endocrine Oncology* 1(aop) Surgical Staff: **Alex Papachristos, Anthony Glover, Mark Sywak, Ahmad Aniss**

2021

Wijewardene et al. **2021** "Change in Practice of Radioactive Iodine Administration in Differentiated Thyroid Cancer: A Single-Centre Experience." *Eur Thyroid J* 10: 408-415 PMID:34540711 Surgical Staff: **Anthony Glover, Mark Sywak, Stanley Sidhu**

Parkin et al. **2021** "What is the Accuracy of the ACS-NSQIP Surgical Risk Calculator in Emergency Abdominal Surgery? A Meta-Analysis." *J Surg Res* 268: 300-307 PMID:34392184 Surgical Staff: **Anthony Glover**

Nickel et al. **2021** "Thyroid cancer clinicians' views and experiences of delayed treatment during the COVID-19 pandemic: An international cross-sectional survey." *ANZ J Surg* 91: 2562-2564 PMID:34350698 Surgical Staff: **Anthony Glover**

Jonker et al. **2021** "Correction to: Multimodality Treatment Improves Locoregional Control, Progression-Free and Overall Survival in Patients with Anaplastic Thyroid Cancer: A Retrospective Cohort Study Comparing Oncological Outcomes and Morbidity between Multimodality Treatme" *Ann Surg Oncol* 28: 891 PMID:34279756 Surgical Staff: **Anthony Glover, Stanley Sidhu, Mark Sywak**

Tao et al. **2021** "BRAF V600E Status Sharply Differentiates Lymph Node Metastasis-associated Mortality Risk in Papillary Thyroid Cancer." *J Clin Endocrinol Metab* 106: 3228-3238 PMID:34273152 Surgical Staff: **Mark Sywak**

Di Marco et al. **2021** "Focused parathyroidectomy without intraoperative parathyroid hormone measurement in primary hyperparathyroidism: Still a valid approach?" *Surgery* 170: 1383-1388 PMID:34144815 Surgical Staff: **Anthony Glover, Alex Papachristos, Mark Sywak, Stanley Sidhu**

Jonker et al. **2021** "ASO Author Reflections: Multimodality Treatment in Anaplastic Thyroid Cancer: Improving Survival Outcomes and Balancing Treatment Related Complications." *Ann Surg Oncol* 28: 7531-7532 PMID:34131820 Surgical Staff: **Mark Sywak**

Jonker et al. **2021** "Multimodality Treatment Improves Locoregional Control, Progression-Free and Overall Survival in Patients with Anaplastic Thyroid Cancer: A Retrospective Cohort Study Comparing Oncological Outcomes and Morbidity between Multimodality Treatment and Limited" *Ann Surg Oncol* 28: 7520-7530 PMID:34032961 Surgical Staff: **Anthony Glover, Stanley Sidhu, Mark Sywak**

Ndegwa et al. **2021** "Intraoperative ultrasound facilitates localization in a morbidly obese patient undergoing posterior retroperitoneoscopic adrenalectomy." *ANZ J Surg* 91: 2215-2217 PMID:33788348 Surgical Staff: **Mark Sywak**

Joseph et al. **2021** "An unusual case of a penetrating neck injury (PNI) illustrating the use of a "no zone" approach for the management of this injury and a review of the literature." *Trauma Case Rep* 32: 100402 PMID:33644288 Surgical Staff: **Anthony Glover, Walid Mohabbat**

Jaffar et al. **2021** "Predicting distant metastatic disease in differentiated thyroid cancer: a matched case-control study." *ANZ J Surg* 91: 716-723 PMID:33590959 Surgical Staff: **Anthony Glover, Stanley Sidhu, Mark Sywak**

Papachristos et al. **2021** "Correction to: Bi-national Review of Pheochromocytoma Care: Is ICU Admission Always Necessary?" *World J Surg* 45: 1252-1253 PMID:33523254 Surgical Staff: **Alex Papachristos, Stanley Sidhu, Mark Sywak**

Papachristos et al. **2021** "Pros and cons of hemi-thyroidectomy for low-risk differentiated thyroid cancer." *ANZ J Surg* 91: 1704-1710 PMID:33438352 Surgical Staff: **Alex Papachristos, Anthony Glover, Mark Sywak, Stanley Sidhu**

Papachristos et al. **2021** "Bi-national Review of Pheochromocytoma Care: Is ICU Admission Always Necessary?" *World J Surg* 45: 790-796 PMID:33219416 Surgical Staff: **Alex Papachristos, Stanley Sidhu, Mark Sywak**

Nickel et al. **2021** "Delays to Low-risk Thyroid Cancer Treatment During COVID-19-Refocusing From What Has Been Lost to What May Be Learned and Gained." *JAMA Otolaryngol Head Neck Surg* 147: 5-6 PMID:33119084 Surgical Staff: **Anthony Glover**

van der Plas et al. **2021** "Parathyroidectomy for patients with secondary hyperparathyroidism in a changing landscape for the management of end-stage renal disease." *Surgery* 169: 275-281 PMID:33059930 Surgical Staff: **Stanley Sidhu, Mark Sywak**

Nylén et al. **2021** "Prophylactic central lymph node dissection informs the decision of radioactive iodine ablation in papillary thyroid cancer." *Am J Surg* 221: 886-892 PMID:32878695 Surgical Staff: **Mark Sywak, Anthony Glover, Stanley Sidhu**

Papachristos et al. **2021** "Thyroidectomy technique: Defusing the recurrent laryngeal nerve - The superior approach." *Am J Surg* 222: 712-714 PMID:33775410 Surgical Staff: **Stanley Sidhu, Alex Papachristos**

HAND AND PERIPHERAL NERVE SURGERY

Head of Department: Richard Lawson



RESEARCH SUPERVISION (2021-2022)

Richard Lawson

Education and Teaching Modules:

- Hand Trauma Module: Essentials In Clinical Trauma Care

Brahman Sivakumar

- 4 MD Students
Projects include retrospective cohort study comparing metacarpal and phalangeal intramedullary screw fixation; arthroscopic carpal fusion targeted muscle reinnervation

David Stewart

- Co-Supervisor, Master of Surgery Student – volar plate repair in open dislocation



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Hand and Peripheral Nerve Surgery Database
- Tetraplegia Database

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- Ultrasound to Predict Tendinopathy from Distal Radius Volar Locking Plates: A Pilot Study

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- Macquarie University



CURRENT RESEARCH ACTIVITY

- Systematic reviews and meta-analyses on distal interphalangeal joint arthroplasty; early vs. late replantation; rib grafts vs proximal scaphoid
- Registry analysis – trends in outcomes in wrist arthroplasty in Australia
- Arthroscopic bone graft for scaphoid
- Arthroscopic lunate excision for Kienböck's disease
- Outcomes of plate removal – patient satisfaction
- Review of Scheker distal radial ulnar joint arthroplasties
- K wire treatment of mallet injuries
- Radial collateral ligament injuries of thumb metacarpophalangeal joint
- Flexor tendon adhesions to phalangeal fractures
- Intra-medullary screw damage to phalangeal head cartilage – assessment of defect size



2022

Sivakumar et al. **2022** "The Utility of the Interosseous Arterial System for Microvascular Interposition Grafting." **J Hand Surg Asian Pac Vol 27**: 1067-1070 PMID:36606357 Surgical Staff: **Brahman Sivakumar, Richard Lawson**

Tiedgen et al. **2022** "The Volar Midline Longitudinal Groove of the Middle Phalanx: An Anatomic Study and Clinical Implications." **J Hand Surg Am** PMID:36372597 Surgical Staff: **Richard Lawson, Brahman Sivakumar**

Castillo et al. **2022** "The Efficacy of Antegrade Homodigital Neurovascular Island Flaps in Distal Fingertip Reconstruction: A Systematic Literature Review." **Hand (N Y)** 15589447221127332 PMID:36278422 Surgical Staff: **Richard Lawson, Brahman Sivakumar**

Ho et al. **2022** "An unusual growth in the nail matrix: A case of superficial acral fibromyxoma." **Skin Health Dis 2**: e121 PMID:36092267 Surgical Staff: **David Stewart**

Bhardwaj et al. **2022** "Anatomic Variations of the Musculocutaneous Nerve and Clinical Implications for Restoration of Elbow Flexion." **J Hand Surg Am 47**: 970-978 PMID:36064510 Surgical Staff: **Brahman Sivakumar**

Tolerton et al. **2022** "Recurrent Trigger Finger Caused by Herniation of Flexor Digitorum Profundus through the Chiasma - A Case Report." **J Hand Surg Asian Pac Vol 27**: 732-735 PMID:35965358 Surgical Staff: **Brahman Sivakumar, Richard Lawson**

Thatcher et al. **2022** "Simultaneous Reconstruction of the Distal Radioulnar Joint Ligaments and Interosseous Membrane Combined with Ulna Shortening Osteotomy for Chronic Essex-Lopresti Injury." **J Hand Surg Asian Pac Vol 27**: 574-579 PMID:35808872 Surgical Staff: **Brahman Sivakumar**

Sivakumar et al. **2022** "Temporal trends in the management of metacarpal and phalangeal fractures in the 21st century: an analysis of Australian population-based data." **ANZ J Surg 92**: 2655-2660 PMID:35785509 Surgical Staff: **Brahman Sivakumar, Michael Symes, Richard Lawson**

Multani et al. **2022** "The One-Bone Forearm: A Review." **Hand (N Y)** 15589447221084010 PMID:35321571 Surgical Staff: **Richard Lawson, Brahman Sivakumar**

Koong et al. **2022** "Open versus Single- or Dual-Portal Endoscopic Carpal Tunnel Release: A Meta-Analysis of Randomized Controlled Trials." **Hand (N Y)** 15589447221075665 PMID:35179060 Surgical Staff: **Richard Lawson, Brahman Sivakumar**

Shihab et al. **2022** "Outcomes of Arthroscopic-Assisted Distal Radius Fracture Volar Plating: A Meta-Analysis." **J Hand Surg Am 47**: 330-340.e1 PMID:35168831 Surgical Staff: **Brahman Sivakumar**

Zhou et al. **2022** "Free Medial Femoral Condyle Flap for Reconstruction of Scaphoid Nonunion: A Systematic Review." **J Reconstr Microsurg 38**: 593-603 PMID:34905783 Surgical Staff: **David Stewart, Richard Lawson, Brahman Sivakumar**

Zhou et al. **2022** "Toe-to-Finger Vascularized Joint Transfers for Proximal Interphalangeal Joint Reconstruction: A Systematic Review." **Hand (N Y)** 17: 1031-1038 PMID:33511878 Surgical Staff: **Richard Lawson, Brahman Sivakumar**

Sivakumar et al. **2022** "Intramedullary Compression Screw Fixation of Proximal Phalangeal Fractures: A Systematic Literature Review." **Hand (N Y)** 17: 595-601 PMID:32988227 Surgical Staff: **Brahman Sivakumar, James Ledgard, Richard Lawson**

Sivakumar et al. **2022** "Sagittal Band Injuries: A Review and Modification of the Classification System." **J Hand Surg Am 47**: 69-77 PMID:34756751 Surgical Staff: **Brahman Sivakumar, Mark Hile, Richard Lawson**

Ziazaris et al. **2022** "The Anatomy of Nerve Transfers Used in Tetraplegic Hand Reconstruction." **J Hand Surg Am 47**: 1121.e1-1121.e6 PMID:34702629 Surgical Staff: **James Ledgard**

Sivakumar et al. **2022** "Biomechanical Analysis of Abductor Pollicis Longus Lasso Suspensionplasty for Trapeziectomy." **J Hand Surg Am 47**: 581.e1-581.e9 PMID:34330561 Surgical Staff: **Brahman Sivakumar, Richard Lawson**

Rothe et al. **2022** "Metal-on-metal disease in high-motion wrist arthroplasty." **Hand (NY)** 17: NP11 – NP16 Surgical staff: **Brahman Sivakumar**

Probert et al. **2022** "The impact of COVID-19 on spinal cord injuries and trauma at a tertiary referral centre in Sydney." **J Spine Surg 8**: 418-425. Surgical staff: **Brahman Sivakumar, Michael Symes** (orthopaedics), **Randolph Gray** (orthopaedics)

Xu et al. **2022** "Basic statistics for surgeons." **J Hand Surg Asian Pac 27**: 421-429 Surgical staff: **Brahman Sivakumar**

Youlden et al. **2022** "Things are not always what they seem. A case of gastric adenocarcinoma to the toe." **ANZ J Surg 91**: 267 – 269 Surgical staff: **Brahman Sivakumar, Michael Symes** (orthopaedics)

Graham DJ et al. **2022**. Triangular vascularized free fibular flap for massive carpal reconstruction. **J Hand Surg Am 47**: 196.e1 – 196.e6 Surgical staff: **Brahman Sivakumar**

2021

Chiang et al. **2021** "Flexor Synovectomy as an Adjunct to Carpal Tunnel Release in Primary Carpal Tunnel Syndrome: A Meta-Analysis." **J Hand Surg Asian Pac Vol 26**: 497-501 PMID:34789113 Surgical Staff: **Richard Lawson, Brahman Sivakumar**

Kher et al. **2021** "Outcomes of Isolated Digital Flexor Tenolysis: A Systematic Review." **J Hand Surg Asian Pac 26**: 580-587 PMID:34789105 Surgical Staff: **Michael Symes (orthopaedics), Richard Lawson, Brahman Sivakumar**

Bui et al. **2021** "Outcomes of Acute Operative Repair of Complete Digital Proximal Interphalangeal Joint Collateral Ligament Ruptures: A Systematic Review." **J Hand Surg Asian Pac 26**: 644-653 PMID:34789094 Surgical Staff: **Brahman Sivakumar**

Willemot et al. **2021** "Reconstruction of an infected midshaft radius and ulna nonunion using a free vascularized fibula and medial femoral condyle flap." **Microsurgery 41**: 666-670 PMID:33932250 Surgical Staff: **David Stewart, Richard Lawson**

Sivakumar et al. **2021** "Erratum - Range of Motion Following Extensor Tendon Splitting vs. Tendon Sparing Approaches for Plate Osteosynthesis of Proximal Phalangeal Fractures - A Systematic Review and Meta-Analysis." **J Hand Surg Asian Pac 26**: 308 PMID:33928867 Surgical Staff: **Brahman Sivakumar, James Ledgard, Richard Lawson**

Cawthorne et al. **2021** "Effect of commonly used surgical solutions on the tensile strength of absorbable sutures: an in-vitro study." **ANZ J Surg 91**: 1451-1454 PMID:33928746 Surgical Staff: **Brahman Sivakumar**

Morgan et al. **2021** "Scaphoid plating for recalcitrant scaphoid fractures: a systematic review." **J Hand Surg Eur 46**: 616-620 PMID:33861659 Surgical Staff: **Brahman Sivakumar**

Davies et al. **2021** "Prospective analysis of syncope/pre-syncope in a tertiary paediatric orthopaedic fracture outpatient clinic." **ANZ J Surg 91**: 668-672 PMID:33605034 Surgical Staff: **Brahman Sivakumar**

Boghossian et al. **2021** "The Medial Metaphyseal Periosteal Artery (MMPA): An Alternate Pedicle for the Medial Femoral Trochlea Flap." **J Hand Surg Am 46**: 1032.e1-1032.e3 PMID:33526296 Surgical Staff: **David Stewart**

Probert et al. **2021** "The impact of COVID-19 related social restrictions on orthopaedic trauma in a level 1 trauma centre in Sydney: the first wave." **ANZ J Surg 91**: 68-72 PMID: 33047480 Surgical Staff: **Brahman Sivakumar, Michael Symes (orthopaedics), Andrew Ellis (orthopaedics)**

Symes et al. **2021** "Pseudoaneurysm of the medial plantar artery following low energy closed calcaneal fracture." **ANZ J Surg 91**: e603 – e605 PMID: 33595874 Surgical staff: **Brahman Sivakumar, Michael Symes (orthopaedics)**

Sivakumar et al. **2021** "Total distal radioulnar joint arthroplasty for paediatric post-traumatic distal ulna growth arrest." **J Hand Surg Asian Pac 26**: 467 – 471 PMID: 34380389 Surgical staff: **Brahman Sivakumar**

Bandara et al. **2021** "Rehabilitation protocols following rotator cuff repair: a meta-analysis of current evidence." **ANZ J Surg 91**: 2773 – 2779 PMID: 34582083 Surgical Staff: **Brahman Sivakumar**

Moore et al. **2021** "Dedicated hip fracture services: a systematic review." **ANZ J Surg 91**: 2163 – 2166 PMID: 34085394 Surgical staff: **Brahman Sivakumar**

INTENSIVE CARE UNIT

Head of Department: Lewis Macken



RESEARCH SUPERVISION (2021-2022)

Anthony Delaney

- 4 PhD Students (Primary Supervisor)
- 4 PhD Students (Secondary Supervisor)

Simon Finfer

- 3 PhD Students (Primary Supervisor)

Naomi Hammond

- 2 PhD Students (Co-Primary Supervisor)
- 3 PhD Students (Secondary Supervisor)



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Neuroscience Outcomes from Intensive Care Database: NOICE
- Burns Outcomes from Intensive Care Database: BOICE
- Follow-Up Care, Understanding and Support After ICU (FOCUS ICU): FOLLOW-UP CLINIC
- Royal North Shore Intensive Care Unit Nurse Practitioner Program Database

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- SAPLING: Observational study of Severe Acute Pancreatitis Looking into Immune Signatures
- TrAFFIC: Tracking Atrial Fibrillation after Intensive Care Admission
- Acute respiratory management of spinal cord injury
- Sensitivity and false positive rates of a rapid response team trigger using the 'Between The Flags' system - a benchmarking study
- General practitioners' views and experiences in their interactions with intensive care follow up services and caring for patients following severe critical illness
- The prognosis of ventriculitis: a retrospective observational cohort study from the Neuroscience Outcomes from Intensive CarE (NOICE) database
- Impact of the COVID-19 pandemic on non-COVID ICU casemix at RNSH ICU
- Hypothermia in burns
- Lactate-guided fluid resuscitation and lactate clearance in severe burn injury
- Fluid management in non-traumatic subarachnoid haemorrhage: a retrospective analysis of the Neuroscience Outcomes from Intensive CarE (NOICE) Database
- Blood pressure control and its effect on outcomes in non-traumatic ICH: a retrospective single centre observational cohort study
- Education in intensive care medicine – a survey of fellows and trainees in Australia and New Zealand
- An intensive approach to vasospasm in patients with aneurysmal subarachnoid haemorrhage
- Determining feasibility of using the Brief-COPE assessment tool to identify those at risk of developing Post Intensive Care Syndrome - Family (PICS-F) analgesia in burns - short term implications and association with chronic pain
- An evaluation of the factors associated with duration of external ventricular drains in patients with aneurysmal subarachnoid haemorrhage
- Ventriculitis prognosis
- SAHOT: External validation of the Subarachnoid Haemorrhage Outcome Tool

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- The George Institute for Global Health, UNSW Sydney
- The Kirby Institute, UNSW Sydney
- Australian and New Zealand Intensive Care Research Centre
- National Health and Medical Research grant review panels
- Brain and Mind Centre, University of Sydney
- Department of Psychology, Macquarie University
- Australian and New Zealand Centre for Outcome and Resource Evaluation
- ANZICS CTG Intensive Care Research Coordinator Interest Group (IRCIG)
- Asia Pacific Sepsis Alliance
- Sepsis Australia
- International Sepsis Forum
- Australian College of Critical Care Nurses – NSW Committee and Research Advisory Panel
- European Society of Intensive Care Medicine
- Society of Critical Care Medicine
- Stroke Foundation
- Brain Injury Australia



CURRENT RESEARCH ACTIVITY

- REMAP CAP: Adaptive platform trial for community acquired pneumonia
- ECMO CARD: Extra Corporeal Membrane Oxygenation for 2019 novel Coronavirus Acute Respiratory Disease
- EXCEL: A collaborative bi-national registry on the treatment and outcomes of patients requiring ECMO in ICU
- SAHaRA: Aneurysmal Subarachnoid Haemorrhage-Red Blood Cell Transfusion and Outcome
- SPRINT-SARI: Short Period Incidence study of Severe Acute Respiratory Infection
- TTM2 HEA: Targeted Hypothermia versus Targeted Normothermia after Out-of-hospital Cardiac Arrest - Health Economic Evaluation sub-study
- Point Prevalence Program (PPP): PPP is a unique collaborative program of coordinated observational research across Australian and New Zealand adult and paediatric intensive care units
- REVISE: The re-evaluating the inhibition of stress erosions trial
- FluDReSS: Fludrocortisone Dose Response Relationships & Vascular Responsiveness in Septic Shock
- ARISE Fluid: The Australasian Resuscitation in Sepsis Evaluation: Fluid or Vasopressors in Emergency Department
- Sepsis in AKI: ARISE Fluid sub-study- Sepsis in Acute Kidney Injury
- BONE ZONE: Bone Loss Prevention with Zoledronic Acid or Denosumab in Critically Ill Women
- Immune CAP: Tissue Resident Memory Cells in Severe Community Acquired Pneumonia
- NEURO K: Establishing a blood test for detecting the extent of neurological damage using brain derived cell free DNA
- MEGA ROX: The Mega Randomised Registry Trial Comparing Conservative vs. Liberal Oxygenation Targets
- EPO TRAUMA: A randomised, double-blind, placebo-controlled trial of erythropoietin alfa versus placebo in mechanically ventilated critically ill patients following traumatic injury
- EVIDENCE: Efficacy and value in expedited out of hospital arrest care with end tidal CO2 (ETCO2) ECMO CPR (ECPR)
- AMOSCI: Acute Management of Spinal Cord Injury
- Sepsis ICD Coding Validation Study: Validation of ICD coding methods in estimating sepsis epidemiology
- NOTACS: Effect of Nasal High-Flow Oxygen Therapy on Patient-Centred Outcomes in Patients at High Risk of Postoperative Pulmonary Complications After Cardiac Surgery: A Multicentre Randomised Controlled Trial
- Wellbeing Survey: Wellness survey in critical care health worker
- Experiences of significant others of ICU patients with severe burns



2022

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Macdonald et al. 2022 "Fluids or vasopressors for the initial resuscitation of septic shock." **Front Med (Lausanne)** 9: 1069782 PMID: 36507525 Surgical Staff: **Anthony Delaney**

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2021

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Tirupakuzhi et al. 2021 "Challenges in the Delivery of Critical Care in India during the COVID-19 Pandemic." **Journal of the Intensive Care Society** 22: 342–48 PMID: 35154373 Surgical Staff: **Naomi Hammond**

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NEUROSURGERY

Head of Department: Nazih Assaad



RESEARCH SUPERVISION (2021-2022)

Jonathon Parkinson

- 1 Master of Surgery Student



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Neurosurgery Activity & Clinical Outcomes Database



CURRENT RESEARCH ACTIVITY

- RISCIS - Riluzole in Spinal Cord Injury Study - clinical trial
- AMOSCI - Acute Management of Spinal Cord Injury - a registry-platform study
- SAHaRA - Aneurysmal Subarachnoid Hemorrhage - Red Blood Cell Transfusion and Outcome: a randomised controlled trial
- MANGO - Magnetic resonance hypoxia imaging for radiation treatment guidance in glioblastoma multiforme - a diagnostic/prognostic clinical imaging study



PUBLICATIONS

2022

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NEUROINTERVENTION UNIT

Head of Department: Nazih Assaad



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Interventional NeuroRadiology Workload Database
- Endovascular Clot Retrieval Database

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- Boston University
- Royal Melbourne Hospital



CURRENT RESEARCH ACTIVITY

- MOSS – PI. Intraarterial TNK in medium vessel occlusion stroke
- Pharmacogenomics in INR – PI, Recipient of Ramsay Grant. Pharmacogenomics guided strategy for antiplatelet selection in Neurointervention
- DIRECT-SAFE - Direct endovascular clot retrieval (compared to bridging intravenous thrombolysis with endovascular clot retrieval) - clinical trial
- MOSES - The Monitoring Of Stroke Endovascular Services (MOSES) study - observational study
- Co PI Extend DNASE



PUBLICATIONS

2022

Drumm et al. **2022** "Basilar artery occlusion management: An international survey of middle versus high-income countries." **Interv Neuroradiol** 15910199221143190 PMID:36514286 Surgical Staff: **Alice Ma**

Klein et al. **2022** "Basilar Artery Occlusion Thrombectomy Technique: An International Survey of Practice Patterns." **STROKE: Vascular and Interventional Neurology** 3:2 e000642 Surgical Staff: **Alice Ma**

Nguyen et al. **2022** "Global Impact of the COVID-19 Pandemic on Cerebral Venous Thrombosis and Mortality." **J Stroke** 24: 256-265 PMID:35677980 Surgical Staff: **Alice Ma**

COVID S. **2022** "Global impact of the COVID-19 pandemic on subarachnoid haemorrhage hospitalisations, aneurysm treatment and in-hospital mortality: 1- year follow-up SVIN COVID-19 Global SAH Registry Cerebrovascular disease." **J Neurol, Neurosurg and Psychiatry** 93:10 1028-1038 PMID: 35902229 Surgical Staff: **Alice Ma**

Jackson et al. **2022** "Retrieval of a Fractured Marathon Microcatheter Entrapped in Onyx Using a Novel Stentriever-Assisted Technique." **Oper Neurosurg (Hagerstown)** 23: e304-e308 PMID:36106940 Surgical Staff: **Alice Ma, Ken Faulder**

Donaldson et al. **2022** "The incidence of cerebral arterial vasospasm following aneurysmal subarachnoid haemorrhage: a systematic review and meta-analysis." **Neuroradiology** 64: 2381-2389 PMID:35794390 Surgical Staff: **Alice Ma, Keryn Davidson**

Masoud et al. **2022** "2022 Brief Practice Update on Intravenous Thrombolysis Before Thrombectomy in Patients With Large Vessel Occlusion Acute Ischemic Stroke: A Statement from Society of Vascular and Interventional Neurology Guidelines and Practice Standards (GAPS) Committee." **Stroke: Vascular and Interventional Neurology** 2:4 e000276 Surgical Staff: **Alice Ma**

Mulcahy et al. **2022** "Staged Common and External Carotid Artery Stenting Followed by Superficial Temporal Artery to Middle Cerebral Artery Bypass." **Journal of Neurological Surgery Part A: Central European Neurosurgery** Surgical Staff: **Brendan Steinfert, Nazih Assaad**

Mitchell et al. **2022** "Endovascular thrombectomy versus standard bridging thrombolytic with endovascular thrombectomy within 4-5 h of stroke onset: an open-label, blinded-endpoint, randomised non-inferiority trial." **Lancet** *400*: 116-125 PMID:35810757 Surgical Staff: **Brendan Steinfert**

2021

Mohamed et al. **2021** "Repeated Mechanical Endovascular Thrombectomy for Recurrent Large Vessel Occlusion: A Multicenter Experience." **Stroke** *52*: 1967-1973 PMID:33910367 Surgical Staff: **Alice Ma**

Nguyen et al. **2021** "Decline in subarachnoid haemorrhage volumes associated with the first wave of the COVID-19 pandemic." **Stroke Vasc Neurol** *6*: 542-552 PMID:33771936 Surgical Staff: **Brendan Steinfert, Alice Ma**

Nogueira et al. **2021** "Global Impact of COVID-19 on Stroke Care and IV Thrombolysis." **Neurology** *96*: e2824-e2838 PMID:33766997 Surgical Staff: **Alice Ma**

Boyle et al. **2021** "Medical treatment of polymeric cerebral granulomatous reactions following endovascular procedures." **J Neurointerv Surg** *13*: 1032-1036 PMID:33722971 Surgical Staff: **Brendan Steinfert, Tim Harrington, Nazih Assaad, Ken Faulder**

Nogueira et al. **2021** "Global impact of COVID-19 on stroke care." **Int J Stroke** *16*: 573-584 PMID:33459583 Surgical Staff: **Alice Ma, Ken Faulder**

Ma et al. **2021** "Stroke and Thromboprophylaxis in the Era of COVID-19." **J Stroke Cerebrovasc Dis** *30*: 105392 PMID:33130478 Surgical Staff: **Alice Ma, Alun Ellis**

Hall et al. **2021** "Giant aneurysms of the distal posterior inferior cerebellar artery - systematic review." **Br J Neurosurg** *1-7* PMID:34279172 Surgical Staff: **Brendan Steinfert**

Castonguay et al. **2021** "Society of Vascular and Interventional Neurology Standards and Parameters for Guideline Development and Publication." **STROKE: Vascular and Interventional Neurology** *1:1* e000112 Surgical Staff: **Alice Ma**

Mohamad et al. **2021** "Hydrophilic polymer embolization following flow diversion of cerebral aneurysms." **Neuroradiol** *34:4* 363-369 PMID: 33765885 Surgical Staff: **Alice Ma**

OPHTHALMOLOGY

Head of Department: James Smith



RESEARCH SUPERVISION (2021-2022)

Samantha Fraser-Bell

Education and Teaching Modules:

- Dissertation Lecturer – Master of Ophthalmic Science, University of Sydney

Timothy Roberts

- 1 Master of Medicine Student



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Fight Retinal Blindness! Registry for age related macular degeneration, retinal vein occlusion, diabetic macular oedema
- Fight Retinal Blindness! Keratoconus database
- Australian Corneal Graft Registry

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- Save Sight Institute, University of Sydney
- McMaster's University, Canada
- Retina Consultants of Texas, USA
- Chang Mai University, Thailand
- University of Melbourne
- University of Milan
- University of Leipzig



CURRENT RESEARCH ACTIVITY

RETINA

Retinal vein occlusion:

- Early predictors of one-year outcomes of eyes with retinal vein occlusion treated with VEGF inhibitors
- Near-infrared light photobiomodulation treatment for retinal vein occlusion macular oedema - currently recruiting - supported by Australian Vision Research grant

Age related macular degeneration:

- Effect of switching eyes with neovascular age related macular degeneration to faricimab from other antiVEGF agents

Diabetic retinopathy

- Treatment of diabetic macular oedema with faricimab using a pragmatic approach - comparing fixed dosing with treat and extend regimen
- Genetic study of patients with history of treatment for diabetic retinopathy
- 5-year outcomes of eyes with diabetic macular oedema treated with antiVEGF

- Outcomes of eyes with diabetic macular edema treated with anti-vascular endothelial growth factor in clinical practice - Cochrane Eye vision analysis

Macular telangiectasia type 2:

- MacTel NHOR – genetic study of patients and family members with Mactel

CATARACT SURGERY

- Long-term visual acuity and adverse event outcomes for new generation Clareon and Panoptix Trifocal intraocular lens compared to historical safety and performance endpoint (SPE) rates as reported in EN ISO 11979-7:2014
- Magnitude of postoperative refractive astigmatism compared to preoperative corneal astigmatism in eyes with 0.50 D to 1.50 D of astigmatism implanted with TECNIS Toric IOL Model ZCT100
- Manual versus automated marking systems for intraoperative management of corneal astigmatism

GLAUCOMA

- Intraocular pressure (IOP) - lowering efficacy and safety of 2 dose strengths of Bimatoprost SR (Sustained-release implant) in the anterior chamber of patients with open-angle glaucoma (OAG) or ocular hypertension (OHT)

INDUSTRY SPONSORED TRIALS

- Quasar: A Phase 3 study comparing aflibercept 2mg to aflibercept 8mg in eyes with macular oedema due to retinal vein occlusion (Bayer)
- Pulsar: A Phase 3 study comparing aflibercept 2mg to aflibercept 8mg in eyes with neovascular age related macular degeneration (Bayer)
- Velodrome: Evaluation of a port delivery system refilled every 6-9 months with ranibizumab in eyes with neovascular age related macular degeneration (ROCHE)
- Rhone-X: An extension study of the Phase 3, RHINE Multicenter, Randomized, Double-Masked, Active Comparator-Controlled Study to Evaluate the Efficacy and Safety of Faricimab in Patients with Diabetic Macular Edema (ROCHE)
- Avonelle-X: an extension study of the Phase 3 study LUCERNE to evaluate the efficacy and safety of faricimab in participants with neovascular age related macular degeneration (ROCHE)
- GOLDEN: Phase 2 Study to assess safety and efficacy of multiple doses of IONIS-FB-LRx given subcutaneously in participants with geographic atrophy secondary to age-related macular degeneration (IONIS/ROCHE)
- PHOENIX: Phase 2 study of Danicopan given orally versus placebo in eyes with geographic atrophy (Alexion)
- Prospective, multi-centre, randomised study of a new refractive extended depth of focus IOL: Quality of vision outcomes
- Clareon IOL: To demonstrate the long-term (3 years) favourable visual acuity and adverse event outcomes for the Clareon IOL compared to historical safety and performance endpoint (SPE) rates as reported in EN ISO 11979-7:2014
- STIRLING: To investigate the magnitude of postoperative refractive astigmatism following implantation of the TECNIS® Toric IOL Model ZCT100 in eyes with 0.50 D to 1.50 D of preoperative corneal astigmatism, compared with preoperative corneal astigmatism (as measured by keratometry)
- Panoptix: Multi-centre retrospective study of 750 eyes implanted with a new generation trifocal intraocular lens



PUBLICATIONS

2022

Spooner et al. **2022** "Long-term outcomes of anti-VEGF treatment of retinal vein occlusion." **Eye (Lond)**. 36:1194-1201 PMID: 34117379; Surgical Staff: **Samantha Fraser-Bell**

Hunt et al. **2022** "Twelve-month outcomes of ranibizumab versus aflibercept for macular oedema in branch retinal vein occlusion: data from the FRB! registry." **Br J Ophthalmol** 106:1178-1184 PMID: 33712484. Surgical Staff: **Samantha Fraser-Bell**

Bartimote et al. **2022** "Reactivation of Multifocal Choroiditis Associated with Treatment in Latent Tuberculosis." **Case Rep Ophthalmol** 13:855-861. PMID: 36605043 Surgical Staff: **Samantha Fraser-Bell**

Mack et al. **2022** "Retinal findings in glomerulonephritis." **Clin Exp Optom**. 105:474-486 PMID: 34877922 Surgical Staff: **Samantha Fraser-Bell**

Niedzwiecki et al. **2022** "12-month outcomes of ranibizumab versus aflibercept for macular oedema in central retinal vein occlusion: data from the FRB! registry." **Acta Ophthalmol**. 100: e920-e927 PMID: 34519167 Surgical Staff: **Samantha Fraser-Bell**

Chaudhary et al. **2022** "Role of anti-vascular endothelial growth factor in the management of non-proliferative diabetic retinopathy without centre-involving diabetic macular oedema: a meta-analysis of trials." **Eye (Lond)** PMID: 36369263 Surgical Staff: **Samantha Fraser-Bell**

Chaikitmongkol et al. **2022** "Polypoidal Choroidal Vasculopathy Based on Non-ICGA Criteria in White Patients With Neovascular Age-Related Macular Degeneration." **Am J Ophthalmol** 244: 58-67 PMID: 35952753 Surgical Staff: **Samantha Fraser-Bell**

Wang et al. **2022**. "One-year real-world outcomes of bevacizumab for the treatment of macular oedema secondary to retinal vein occlusion." **Clin Exp Ophthalmol** 50:1038-1046. PMID: 35869925 Surgical Staff: **Samantha Fraser-Bell**

Shah et al. **2022**. "Characterization of Poor Visual Outcomes of Diabetic Macular Edema: The Fight Retinal Blindness! Project." **Ophthalmol Retina** 6:540-547 Surgical Staff: **Samantha Fraser-Bell**

Iglicki et al. **2022**. "Vitrectomized vs non-vitrectomized eyes in DEX implant treatment for DMO-Is there any difference? the VITDEX study." **Eye (Lond)** PMID: 35043004 Surgical Staff: **Samantha Fraser-Bell**

Gabrielle et al. **2022** "Initial observation or treatment for diabetic macular oedema with good visual acuity: two-year outcomes comparison in routine clinical practice: data from the Fight Retinal Blindness! Registry." **Acta Ophthalmol** PMID: 33196150 Surgical Staff: **Samantha Fraser-Bell**

Ackerman et al. **2022** "Visual and Refractive Efficacy of Panoptix Toric Intraocular Lens in a Clinical Setting." **Clin Ophthalmol** 16: 4227-4237 PMID:36567956 Surgical Staff: **Timothy Roberts**

Kvopka et al. **2022** "Multi-resistant Enterobacter cloacae dacryocystitis and preseptal cellulitis: case and review of literature." **Orbit** 1-4 PMID:35075984 Surgical Staff: **Jennifer Danks**

Tong et al. **2022** "Clinical and Radiological Features of Intramuscular Orbital Amyloidosis: A Case Series and Literature Review." **Ophthalmic Plast Reconstr Surg** 38: 234-41 Surgical Staff: **Brett O'Donnell**

McNab et al. **2022** "Hughes flap in the management of lower lid retraction." **Orbit** 41: 733-8 Surgical Staff: **Brett O'Donnell**

Sutton et al. **2022** "Linear immunoglobulin A bullous dermatosis with severe ocular and oropharyngeal involvement." **Pathology** 54: S82-S83 Surgical Staff: **Noni Lewis**

Fraser-Bell et al. **2021** "Dexamethasone intravitreal implant in treatment-naïve diabetic macular oedema: findings from the prospective, multicentre, AUSSIEDEX study." **Br J Ophthalmol.** 107:72-78 PMID: 34433549 Surgical Staff: **Samantha Fraser-Bell**

Bartimote et al **2021** "Asymptomatic occlusive retinal vasculitis in newly diagnosed active tuberculosis." **Respir Med Case Rep.** 24:33:101456 PMID: 34401294 Surgical Staff: **Samantha Fraser-Bell**

Cornish et al. **2021** "Five-year outcomes of eyes initially enrolled in the 2-year BEVORDEX trial of bevacizumab or dexamethasone implants for diabetic macular oedema." **Br J Ophthalmol.** 107:79-83 PMID: 34340975 Surgical Staff: **Samantha Fraser-Bell**

Cornish et al. **2021** "Neovascular age-related macular degeneration at treatment intervals of 14 weeks or greater." **Clin Exp Ophthalmol.** 49:570-578 PMID: 34129283 Surgical Staff: **Samantha Fraser-Bell**

Salem et al. **2021** "Effect of intravitreal injection speed on acute rise in intraocular pressure. The SPEED IOP study." **Clin Exp Ophthalmol** 49:519-521 PMID: 33881205 Surgical Staff: **Samantha Fraser-Bell**

Rodríguez-Valdés et al. **2021** "GRAding of functional and anatomical response to DEXamethasone implant in patients with Diabetic Macular Edema: GRADE-DME Study." **Sci Rep.** 11:4738 PMID: 33637772 Surgical Staff: **Samantha Fraser-Bell**

Mack et al. **2021** ""COVID new normal" in ophthalmology: Implications for ophthalmologists, eye care, ophthalmic education and research." **Clin Exp Ophthalmol** 49:9-11. PMID: 33462979 Surgical Staff: **Samantha Fraser-Bell**

Kam et al **2021** "Using Lean Six Sigma techniques to improve efficiency in outpatient ophthalmology clinics." **BMC Health Serv Res.** 21:38 PMID: 33413381 Surgical Staff: **Andrew Kam, Tae Park, Michael Mihail, Noni Lewis, Dan Polya, James Smith, Samantha Fraser-Bell, Timothy Roberts**

Fung et al. **2021** "Subclinical subretinal fluid detectable only by optical coherence tomography in choroidal naevi-the SON study." **Eye (Lond)** 35:2038-2044 PMID: 33057241 Surgical Staff: **Samantha Fraser-Bell**

Spooner et al. **2021.** "Long-term Anti-Vascular Endothelial Growth Factor Treatment for Neovascular Age-Related Macular Degeneration: The LATAR Study: Report 1: Ten-Year, Real-World Outcomes." **Ophthalmol Retina.** 5:511-518 PMID: 33007523 Surgical Staff: **Samantha Fraser-Bell**

Paez-Escamilla et al, **2021** "Age-related macular degeneration masqueraders: From the obvious to the obscure." **Surv Ophthalmol.** 66:153-182 PMID: 32971140 Surgical Staff: **Samantha Fraser-Bell**

Singh et al. **2021** "Optical coherence tomography angiography findings of fellow eye of proliferative macular telangiectasia type 2: Long term study." **Eur J Ophthalmol.** 31:1933-1939 PMID: 32613846 Surgical Staff: **Samantha Fraser-Bell**

Spooner et al. **2021** "Patient-reported outcomes from a phase IV study of aflibercept in patients with refractory retinal vein occlusions." **Taiwan J Ophthalmol.** 3: 11:244-250 PMID: 34703739 Surgical Staff: **Samantha Fraser-Bell**

Spooner et al. **2021** "Optical-coherence tomography angiography and ultrawide-field angiography findings in eyes with refractory macular edema secondary to retinal vein occlusion switched to aflibercept: A subanalysis from a 48-week prospective study." **Taiwan J Ophthalmol.** 27: 11:352-358 PMID: 35070663 Surgical Staff: **Samantha Fraser-Bell**

Knight et al. **2021** Childhood and Early Onset Glaucoma Classification and Genetic Profile in a Large Australasian Disease Registry. **Ophthalmology** 128:1549-1560 PMID: 33892047 Surgical Staff: **James Smith**

Ma et al. **2021** "Genome sequencing in congenital cataracts improves diagnostic yield. **Hum Mutat.** 42:1173-1183 PMID: 34101287 Surgical Staff: **James Smith**

Guitera et al. **2021** "A practical guide on the use of Imiquimod cream to treat lentigo maligna." **Australasian J Derm** 63: 197-8 Surgical Staff: **Brett O'Donnell**

Bae et al. **2021** "Role of Optic Nerve Sheath Fenestration in Inflammatory Pachymeningitis Causing Visual Impairment." **Ophthalmic Plast Reconstr Surg** 37: e63-5 Surgical Staff: **Brett O'Donnell**

ORTHOPAEDIC SURGERY

Head of Department: Andrew Ellis



RESEARCH SUPERVISION (2021-2022)

Benjamin Cass

- 2 Master of Surgery Students

Bill Walter

- University of Sydney Supervision of Higher degree research course completed
- 1 PhD Student
- 1 Master of Surgery Student



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR)
- The Orthopaedic Registry and Implant/Tissue Bank
- RNSH Orthopaedic Trauma and Spine Database (SORTED)

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- SOFIE: Surgery for Olecranon Fracture in the Elderly: a randomized controlled trial of operative versus non-operative treatment
- Recalcitrant Plantar Fasciitis and Actisound Ultrasound: a prospective randomized controlled trial
- The Orthopaedic Registry and Implant/Tissue Bank
- A3BC Tissue BioBank
- RNSH Trauma and Spine Registry

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- Discipline of Surgery, University of Sydney
- School of Information Technology, University of Sydney
- Australian Centre for Field Robotics, University of Sydney
- Raymond Purves Bone and Joint Research Laboratory
- Murray Maxwell Biomechanics Laboratory
- Department of Rheumatology
- Kolling Orthopaedic Biomechanics Robotic Arm (KOBRA)



CURRENT RESEARCH ACTIVITY

SHOULDER AND ELBOW

- Biomechanical comparison of shoulder materials
- Precision and accuracy of pumps used in shoulder arthroplasty
- TXA Study (Systemic Tranexamic Acid in Shoulder Arthroplasty)
- Review of the use of the Rota-Lok system for massive rotator cuff repairs
- Comparative study of physician applied and patient reported constant scores using bathroom scales to derive force measurements
- Validation of patient completed constant shoulder score
- Fitness band use in shoulder evaluation
- TXA 2 Study (Systemic Tranexamic Acid in Shoulder Arthroscopy and Rotator Cuff Repair)
- Arthroscopic RCR with muscle advancement for massive tears
- Supraspinatus and infraspinatus muscle advancement in irreparable rotator cuff tears: A cadaveric study quantifying the muscle slide
- Supraspinatus and infraspinatus muscle advancement in irreparable rotator cuff tears: A cadaveric study examining the effect on the suprascapular nerve
- Total shoulder replacement long term follow up with the constant score
- Reverse total shoulder replacement long term follow up with the constant score
- The ReShape study

HAND

- Hand surgery research projects, including biomechanics and case-based studies on tendon surgery and nerve surgery, including nerve transfers

HIP

- Hip resurfacing with ceramic-on-ceramic bearing
- Spino-pelvic parameters in hip replacement
- Pre-operative planning for total hip replacement
- Enabling technologies in hip replacement
- Psoas tendon irritation after total hip replacement
- Clexane vs aspirin for the prevention of DVT and PE after hip and knee replacement
- Use of dual mobility bearings in hip replacement for the treatment of femoral neck fractures

KNEE

- Cognitive behavioural therapy in managing dissatisfaction following total knee replacement
- Assessment of outcomes and readiness for return to sport after anterior cruciate ligament reconstruction
- Study of multi-alignment in knee injuries
- Case controlled studies of bilateral vs unilateral total knee arthroplasty
- Knee biomechanics of patients after total knee replacement
- Predominantly prospective clinical trials in knee and elbow, retrospective, case series, radiological review, cadaveric and biomechanical: 90% independent investigator-initiated studies and two industry associated studies
- Clinical trials comparing unicompartmental knee replacement and osteotomy, measurement of satisfaction following total knee replacement, studies on knee biomechanics and techniques for revision knee replacement
- Stability of total knee replacements
- Biomechanics of the patella-femoral joint after total knee replacement

FOOT AND ANKLE

- Studies on the management of trauma of the foot and ankle and lower limb, ankle arthroscopy and ankle replacement

TRAUMA

- Clinical studies of tibial fracture management and results of tibial nail use in tibial fracture
- Hip fracture registry measuring the management of patients with these injuries
- Establishment of an orthopaedic trauma registry database, recording all trauma cases prospectively

COVID-19

- Studies of impact of COVID19 on orthopaedic trauma practise
- Biomechanical studies of kangaroo tendon properties for use as a xenograft for reconstruction of human ligaments.



PUBLICATIONS

2022

Probert et al. **2022** "The impact of COVID-19 on spinal cord injuries and trauma at a tertiary referral centre in Sydney." **Journal of spine surgery (Hong Kong)** 8:418-425. doi:10.21037/jss-22-46 Surgical Staff: **Randolf Gray, Brahman Sivakumar, Michael Symes**

O'Keefe et al. **2022** "Minimum 5-Year Follow-up Results: CROSSBAT (Combined Randomised and Observational Study of Surgery vs No Surgery for Type B Ankle Fracture Treatment)." **Foot & ankle international** 43,12: 1517-1524 PMID: 36373545 Surgical Staff: **Michael Symes**

Figueroa et al. **2022** "Return to sport soccer after anterior cruciate ligament reconstruction: ISAKOS consensus." **J ISAKOS** 7: 150-161 PMID:35988884 Surgical Staff: **David Parker**

CRISTAL Study Group et al. **2022** "Effect of Aspirin vs Enoxaparin on Symptomatic Venous Thromboembolism in Patients Undergoing Hip or Knee Arthroplasty: The CRISTAL Randomized Trial." **JAMA** 328,8 (2022): 719-727 PMID: 35997730 Surgical Staff: **Andrew Ellis**

Fatima et al. **2022** "The effect of osteotomy technique (flat-cut vs wedge-cut Weil) on pain relief and complication incidence following surgical treatment for metatarsalgia in a private metropolitan clinic: protocol for a randomised controlled trial." **Trials** 23: 690 PMID:35986383 Surgical Staff: **Michael Symes, Andrew Wines**

Hodges et al. **2022** "Prevalence and determinants of physical activity, sedentary behaviour and fatigue five years after total knee replacement." **Clin Rehabil** 36: 1524-1538 PMID:35861777 Surgical Staff: **David Parker**

Sivakumar et al. **2022** "Temporal trends in the management of metacarpal and phalangeal fractures in the 21st century: an analysis of Australian population-based data." **ANZ J Surg** 92: 2655-2660 PMID:35785509 Surgical Staff: **Brahman Sivakumar, Michael Symes**

Putnis et al. **2022** "Magnetic Resonance Imaging Assessment of Hamstring Graft Healing and Integration 1 and Minimum 2 Years after ACL Reconstruction." **Am J Sports Med** 50: 2102-2110 PMID:35612835 Surgical Staff: **Myles Coolican, David Parker**

Easwaran et al. **2022** "Prophylaxis for preventing venous thromboembolism in knee arthroscopy and soft tissue reconstruction: consensus statements from an international panel of experts." **Knee Surg Sports Traumatol Arthrosc** 30: 3634-3643 PMID:35435469 Surgical Staff: **David Parker**

Dhanekula et al. **2022** "Asian Ethnicity and Femoral Geometry in Atypical Femur Fractures: Independent or Interdependent Risk Factors?" **JBMR Plus** 6: e10607 PMID:35434447 Surgical Staff: **Andrew Ellis**

Mackenzie et al. **2022** "The effect of single-dose, preoperative intravenous tranexamic acid on early postoperative pain scores after rotator cuff repair: a double-blind, randomized controlled trial." **J Shoulder Elbow Surg** 31: 1399-1408 PMID:35346849 Surgical Staff: **Benjamin Cass**

Altaf et al. **2022** "Posterior scoliosis correction with thoracoplasty: effect on pulmonary function with a mean follow-up of 4.8 years." **Spine Deform** 10: 825-832 PMID:35191011 Surgical Staff: **Andrew Cree**

Mackenzie et al. **2022** "Wrist-mounted accelerometers provide objective evidence of disease and recovery in patients with frozen shoulder." **JSES Int** 6: 111-115 PMID:35141684 Surgical Staff: **Benjamin Cass**

Kandhari et al. **2022** "Long term outcomes of computer navigated lateral opening wedge distal femoral osteotomy for lateral compartment knee arthrosis." **Orthopaedic Journal of Sports Medicine** 8:9 PMID: 35198115 Surgical Staff: **David Parker, Myles Coolican**

Leie et al. **2022** "Decreasing Posterior Femoral Condyle Offset Improves Intraoperative Correction of Flexion Contracture in Total Knee Arthroplasty." **J Knee Surg** 35: 653-660 PMID:32927494 Surgical Staff: **Myles Coolican**

Rambaud et al. **2022** "The modifying factors that help improve anterior cruciate ligament reconstruction rehabilitation: A narrative review." **Ann Phys Rehabil Med** 65: 101601 PMID:34757010 Surgical Staff: **David Parker**

Coulshed et al. **2022** "More than just an ankle sprain: a case of synovial chondromatosis of the ankle." **ANZ J Surg** 92: 1263-1265 PMID:34628707 Surgical Staff: **Brahman Sivakumar, Andrew Wines, Michael Symes**

Cunningham et al. **2022** "Implication of bone morphology in degenerative rotator cuff lesions: A prospective comparative study between greater tuberosity angle and critical shoulder angle." **Orthop Traumatol Surg Res** 108: 103046 PMID:34487909 Surgical Staff: **Benjamin Cass**

Youlden et al. **2022** "Things are not always what they seem. A case of gastric adenocarcinoma metastasis to the toe." **ANZ J Surg** 92: 267-269 PMID:34097334 Surgical Staff: **Brahman Sivakumar, Michael Symes**

Klasan et al. **2022** "Low percentage of surgeons meet the minimum recommended unicompartmental knee arthroplasty usage thresholds: Analysis of 3037 Surgeons from Three National Joint Registries." **Knee Surg Sports Traumatol Arthrosc** 30: 958-964 PMID:33595679 Surgical Staff: **David Parker**

Vather et al. **2022** "Ligamentous instability of the first ray: A case report introducing the naviculocuneiform kissing sign on MRI scan." **Foot & Ankle Surgery: Techniques, Reports & Cases** 2(2). doi:10.1016/j.fastrc.2022.100170. Surgical Staff: **Michael Symes**

Veljkovic et al. **2022** "High Pain Catastrophizing Scale Predicts Lower Patient-Reported Outcome Measures in the Foot and Ankle Patient." **Foot & ankle specialist** doi:10.1177/19386400221093865 Surgical Staff: **Michael Symes**

Youlden et al. **2022** "A novel method of treating and rehabilitating patients with flexor tendon injuries to the lesser toes." **Foot & Ankle Surgery: Techniques, Reports & Cases** doi: 10.1016/j.fastrc.2022.100262 Surgical Staff: **Andrew Wines, Michael Symes, Brahman Sivakumar**

Probert et al. **2022** "The impact of COVID-19 on spinal cord injuries and trauma at a tertiary referral centre in Sydney." **Journal of spine surgery (Hong Kong)** 8;4: 418-425 PMID: 36605996 Surgical Staff: **Michael Symes**

Youlden et al. **2022** "An uncommon bone tumour in an even more uncommon location: A case of cuboid osteoid osteoma." **Foot & Ankle Surgery: Techniques, Reports & Cases** 2(2). doi: 10.1016/j.fastrc.2022.100199. Surgical Staff: **Michael Symes**

Symes et al. **2022** "The Impact of Concomitant Ipsilateral Knee Pain on Functional Outcomes in Total Ankle Arthroplasty." **Foot & ankle specialist** 3: 244-251 PMID: 32840142 Surgical Staff: **Michael Symes**

Shatrov et al. **2022** "Improving Acetabular Component Positioning in Total Hip Arthroplasty: A Cadaveric Study of an Inertial Navigation Tool and a Novel Registration Method." **HSS journal: the musculoskeletal journal of Hospital for Special Surgery** 18: 358-367 PMID: 35846262 Surgical Staff: **Bill Walter**

Vanlommel et al. **2022** "Surfing After Hip Resurfacing Surgery." **Clinical journal of sport medicine: official journal of the Canadian Academy of Sport Medicine** 32: 135-138 PMID: 35234742 Surgical Staff: **Bill Walter**

Xu et al. **2022** "Long-Term Results of Alumina Ceramic-On-Ceramic Bearings in Cementless Total Hip Arthroplasty: A 20-Year Minimum Follow-Up." **The Journal of arthroplasty** 37: 549-553 PMID: 34843912 Surgical Staff: **Bill Walter**

Walter et al. **2022** "Novel Measure of Acetabular Cup Inclination and Anteversion During Total Hip Arthroplasty." **Medical devices (Auckland, N.Z.)** 15:1-14 PMID: 35115849 Surgical Staff: **Bill Walter**

Youlden et al. **2022** "A novel method of treating and rehabilitating patients with flexor tendon injuries to the lesser toes." **Foot and Ankle Surgery** 100262 Surgical Staff: **Andrew Wines, Brahman Sivakumar, Michael Symes**

Fatima et al. **2022** "The effect of osteotomy technique (flat-cut vs wedge-cut Weil) on pain relief and complication incidence following surgical treatment for metatarsalgia in a private metropolitan clinic: protocol for a randomised controlled trial." **Trials** 23: 690 doi:10.1186/s13063-022-06591-4 Surgical Staff: **Michael Symes, Andrew Wines**

Twiggs et al. **2022** "Patient-reported impairment following TKA is reduced when a computationally simulated predicted ideal alignment is achieved." **Knee surgery, sports traumatology, arthroscopy: official journal of the ESSKA** 31: 1098-1105 PMID: 36446908 Surgical Staff: **David Parker**

Piedade et al. **2022** "Rehabilitation following surgical reconstruction for anterior cruciate ligament insufficiency: What has changed since the 1960s? State of the art." **Journal of ISAKOS: joint disorders & orthopaedic sports medicine** 8: 153-162 PMID: 36410671 Surgical Staff: **David Parker**

Figuroa, David et al. **2022** "Return to sport soccer after anterior cruciate ligament reconstruction: ISAKOS consensus." **Journal of ISAKOS: joint disorders & orthopaedic sports medicine** 7: 150-161 PMID: 35998884 Surgical Staff: **David Parker**

Hodges et al. **2022** "Prevalence and determinants of physical activity, sedentary behaviour and fatigue five years after total knee replacement." **Clinical rehabilitation** 36: 1524-1538 PMID: 35861777 Surgical Staff: **David Parker**

Easwaran, Raju et al. **2022** "Prophylaxis for preventing venous thromboembolism in knee arthroscopy and soft tissue reconstruction: consensus statements from an international panel of experts." **Knee surgery, sports traumatology, arthroscopy: official journal of the ESSKA** 30: 3634-3643 PMID: 35435469 Surgical Staff: **David Parker**

Kandhari et al. **2022** "Long Term Outcomes of Computer-Navigated Lateral Opening Wedge Distal Femoral Osteotomy for Lateral Compartment Knee Arthrosis." **Rev Bras Ortop (Sao Paulo)** 57: 96-102 PMID:35198115 Surgical Staff: **David Parker, Myles Coolican**

Alexandre et al. **2022** "The modifying factors that help improve anterior cruciate ligament reconstruction rehabilitation: A narrative review." **Annals of physical and rehabilitation medicine** 64: 101601 PMID: 34757010 Surgical Staff: **David Parker**

Klasan, Antonio et al. **2022** "Low percentage of surgeons meet the minimum recommended unicompartmental knee arthroplasty usage thresholds: Analysis of 3037 Surgeons from Three National Joint Registries." **Knee surgery, sports traumatology, arthroscopy: official journal of the ESSKA** 30: 958-964 PMID: 33595679 Surgical Staff: **David Parker**

Bolton et. al. **2022** "Knee Arthrodesis." **Infection in Knee Replacement** 207-214 Surgical Staff: **David Parker**

Tang et al. **2022** "Optimising Screw Trajectory in the Bristow-Latarjet Procedure: A Simple Technique to Improve the Alpha Angle." **J Orthop Surg Tech** 5:487-493 Surgical Staff: **Ben Cass**

Spasojevic et al. **2022** "Subacromial osteochondroma and rotator cuff tear in a young adult with multiple osteochondromas." **JSES reviews, reports, and techniques** 2:92-95 PMID: 37588279 Surgical Staff: **Ben Cass**

Mackenzie et al. **2022** "The effect of single-dose, preoperative intravenous tranexamic acid on early postoperative pain scores after rotator cuff repair: a double-blind, randomized controlled trial." **Journal of shoulder and elbow surgery** 31:1399-1408 PMID: 35346849 Surgical Staff: **Ben Cass**

Cunningham et al. **2022** "Implication of bone morphology in degenerative rotator cuff lesions: A prospective comparative study between Greater Tuberosity Angle and Critical Shoulder Angle" **Orthopaedics & Traumatology: Surgery & Research** 108: 103046 PMID: 34487909 Surgical Staff: **Ben Cass**

Sculco et al. **2022** "The Diagnosis and Treatment of Acetabular Bone Loss in Revision Hip Arthroplasty: An International Consensus Symposium." **HSS journal: the musculoskeletal journal of Hospital for Special Surgery** 18: 8-41 PMID: 35082557 Surgical Staff: **Bill Walter**

2021

Kher et al. **2021** "Outcomes of Isolated Digital Flexor Tenolysis: A Systematic Review." **J Hand Surg Asian Pac** 26: 580-587 PMID:34789105 Surgical Staff: **Michael Symes, Richard Lawson, Brahman Sivakumar**

Twiggs et al. **2021** "Can TKA outcomes be predicted with computational simulation? Generation of a patient specific planning tool." **Knee** 33: 38-48 PMID:34543991 Surgical Staff: **David Parker**

Elliott et al. **2021** "Robotic-assisted knee arthroplasty: an evolution in progress. A concise review of the available systems and the data supporting them." **Arch Orthop Trauma Surg** 141: 2099-2117 PMID:34491411 Surgical Staff: **David Parker**

Lewis et al. **2021** "Randomized Controlled Trial of Topical Skin Adhesive vs Nylon Sutures for Incision Closure in Forefoot Surgery." **Foot Ankle Int** 42: 1106-1114 PMID:33870760 Surgical Staff: **Andrew Wines**

Neri et al. **2021** "Different anterolateral procedures have variable impact on knee kinematics and stability when performed in combination with anterior cruciate ligament reconstruction." **J ISAKOS** 6: 74-81 PMID:33832980 Surgical Staff: **Myles Coolican, David Parker**

Neri et al. **2021** "Lateral tenodesis procedures increase lateral compartment pressures more than anterolateral ligament reconstruction, when performed in combination with ACL reconstruction: a pilot biomechanical study." **J ISAKOS** 6: 66-73 PMID:33832979 Surgical Staff: **Myles Coolican, David Parker**

Putnis et al. **2021** "Magnetic Resonance Imaging 1 Year After Hamstring Autograft Anterior Cruciate Ligament Reconstruction Can Identify Those at Higher Risk of Graft Failure: An Analysis of 250 Cases." **Am J Sports Med** 49: 1270-1278 PMID:33630656 Surgical Staff: **David Parker**

Symes et al. **2021** "Pseudoaneurysm of the medial plantar artery following low-energy closed calcaneal fracture." **ANZ J Surg** 91: E603-E605 PMID:33595874 Surgical Staff: **Michael Symes, Brahman Sivakumar**

Crouch et al. **2021** "The Sydney AFF Score: A Simple Tool to Distinguish Females Presenting With Atypical Femur Fractures Versus Typical Femur Fractures." **J Bone Miner Res** 36: 910-920 PMID:33528853 Surgical Staff: **Andrew Ellis**

An et al. **2021** "Corrigendum to "Limitations in predicting outcome following primary ACL reconstruction with single-bundle hamstring autograft-A systematic review" [The Knee 24(2) (2017) 170-178]." **Knee** 28: 415 PMID:33509709 Surgical Staff: **David Parker**

Cunningham et al. **2021** "A single dose of tranexamic acid reduces blood loss after reverse and anatomic shoulder arthroplasty: a randomized controlled trial." **J Shoulder Elbow Surg** 30: 1553-1560 PMID:33421559 Surgical Staff: **Benjamin Cass**

Eckhard et al. **2021** "The ceiling effects of patient reported outcome measures for total knee arthroplasty." **Orthop Traumatol Surg Res** 107: 102758 PMID:33316442 Surgical Staff: **Bill Walter**

Putnis et al. **2021** "Adjustable suspension versus hybrid fixation in hamstring autograft anterior cruciate ligament reconstruction." **Knee** 28: 1-8 PMID:33278738 Surgical Staff: **Myles Coolican, David Parker**

Klasan et al. **2021** "Tegner level is predictive for successful return to sport 2 years after anterior cruciate ligament reconstruction." **Knee Surg Sports Traumatol Arthrosc** 29: 3010-3016 PMID:33118063 Surgical Staff: **David Parker**

Chahla et al. **2021** "The posteromedial corner of the knee: an international expert consensus statement on diagnosis, classification, treatment, and rehabilitation." **Knee Surg Sports Traumatol Arthrosc** 29: 2976-2986 PMID:33104867 Surgical Staff: **David Parker**

Probert et al. **2021** "Impact of COVID-19-related social restrictions on orthopaedic trauma in a level 1 trauma centre in Sydney: the first wave." **ANZ J Surg** 91: 68-72 PMID:33047480 Surgical Staff: **Brahman Sivakumar, Michael Symes, Andrew Ellis**

Klasan et al. **2021** "Should Sequential Bilateral Total Knee Arthroplasty Be Limited to Patients Younger than 80? A Two-Arm Propensity Matched Study." **J Knee Surg** 34: 1579-1586 PMID:32450604 Surgical Staff: **Myles Coolican, David Parker**

Eckhard et al. **2021** "The KOOS-12 shortform shows no ceiling effect, good responsiveness and construct validity compared to standard outcome measures after total knee arthroplasty." **Knee Surg Sports Traumatol Arthrosc** 29: 608-615 PMID:32300847 Surgical Staff: **Bill Walter**

Agarwal et al. **2021** "The Use of Computer Navigation in Total Hip Arthroplasty Is Associated with a Reduced Rate of Revision for Dislocation: A Study of 6,912 Navigated THA Procedures from the Australian Orthopaedic Association National Joint Replacement Registry." **The Journal of bone and joint surgery. American volume** 103: 1900-1905 PMID: 34143758 Surgical Staff: **Bill Walter**

Stoney, James et al. **2021** "Is the Survivorship of Birmingham Hip Resurfacing Better Than Selected Conventional Hip Arthroplasties in Men Younger Than 65 Years of Age? A Study from the Australian Orthopaedic Association National Joint Replacement Registry." **Clinical orthopaedics and related research** 478: 2625-2636 Surgical Staff: **Bill Walter**

Eckhard et al. **2021** "Minimal important change and minimum clinically important difference values of the KOOS-12 after total knee arthroplasty." **The Knee** 29: 541-546. doi:10.1016/j.knee.2021.03.005 Surgical Staff: **Bill Walter**

Eckhard et al. **2021** "The KOOS-12 shortform shows no ceiling effect, good responsiveness and construct validity compared to standard outcome measures after total knee arthroplasty." **Knee surgery, sports traumatology, arthroscopy: official journal of the ESSKA** 29: 608-615 PMID: 32300847 Surgical Staff: **Bill Walter**

Coulshed et al. **2021** "More than just an ankle sprain: a case of synovial chondromatosis of the ankle." **ANZ journal of surgery** 92:1263-1265 PMID: 34628707 Surgical Staff: **Michael Symes**

Lewis et al. **2021** "Randomized Controlled Trial of Topical Skin Adhesive vs Nylon Sutures for Incision Closure in Forefoot Surgery." **Foot & ankle international** 42: 1106-1114 PMID: 33870760 Surgical Staff: **Andrew Wines**

Twiggs et al. **2021** "Can TKA outcomes be predicted with computational simulation? Generation of a patient specific planning tool." **The Knee** 33: 38-48 PMID: 34543991 Surgical Staff: **David Parker**

Elliott et al. **2021** "Robotic-assisted knee arthroplasty: an evolution in progress. A concise review of the available systems and the data supporting them." **Archives of orthopaedic and trauma surgery** 141: 2099-2117 PMID: 34491411 Surgical Staff: **David Parker**

Rambaud et al. **2021** "The modifying factors that help improve anterior cruciate ligament reconstruction rehabilitation: A narrative review." **Annals of physical and rehabilitation medicine** 65:101601 PMID: 34757010 Surgical Staff: **David Parker**

Putnis et al. **2021** "Magnetic Resonance Imaging 1 Year After Hamstring Autograft Anterior Cruciate Ligament Reconstruction Can Identify Those at Higher Risk of Graft Failure: An Analysis of 250 Cases." **The American journal of sports medicine** 49: 1270-1278 PMID: 33630656 Surgical Staff: **David Parker**

Klasan et al. **2021** "Tegner level is predictive for successful return to sport 2 years after anterior cruciate ligament reconstruction." **Knee surgery, sports traumatology, arthroscopy: official journal of the ESSKA** 29: 3010-3016 PMID: 33118063 Surgical Staff: **David Parker**

Chahla et al. **2021** "The posteromedial corner of the knee: an international expert consensus statement on diagnosis, classification, treatment, and rehabilitation." **Knee surgery, sports traumatology, arthroscopy: official journal of the ESSKA** 29: 2976-2986 PMID: 33104867 Surgical Staff: **David Parker**

Klasan et al. **2021** "Should Sequential Bilateral Total Knee Arthroplasty Be Limited to Patients Younger than 80? A Two-Arm Propensity Matched Study." **The journal of knee surgery** 34:1579-1586 PMID: 32450604 Surgical Staff: **Myles Coolican, David Parker**

Kropelnicki et al. **2021** "Biomechanics of Cruciate Retaining and Posterior Stabilised Total Knee Arthroplasty and Return to Sports." **Orthopaedic Biomechanics in Sports Medicine** 377-389 DOI: https://doi.org/10.1007/978-3-030-81549-3_29 Surgical Staff: **David Parker**

Mackenzie et al. **2021** "Wrist-mounted accelerometers provide objective evidence of disease and recovery in patients with frozen shoulder." **JSES international** 6: 111-115 PMID: 35141684 Surgical Staff: **Jasmine Gwynne and Ben Cass**

Cunningham et al. **2021** "A single dose of tranexamic acid reduces blood loss after reverse and anatomic shoulder arthroplasty: a randomized controlled trial." **Journal of shoulder and elbow surgery** 30: 1553-1560 PMID: 33421559 Surgical Staff: **Ben Cass**

OTOLARYNGOLOGY HEAD AND NECK SURGERY

Head of Department: Martin Forer



RESEARCH SUPERVISION (2021-2022)

Leo Pang

- 1 SMP MD Research Student
- 1 Extended MD Research Project
- 3 Learning Advisor

David Veivers

- 1 SMP MD Project



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Paediatric and General ENT Surgery Database
- Otology REDCap Database
- RNSH Head and Cancer Patient Database

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- Endoscopic Management of Middle Ear Paraganglioma: An Australian Series (cohort study)
- Endoscopic Management of Advanced Congenital Cholesteatoma (cohort study)
- Improvement in Endoscopic Ear Surgery Skills with Simulator Practice (cohort study)
- 12-year retrospective review of patients with Nasopharyngeal Carcinoma in a major tertiary referral hospital
- 2019/ETH13891: The short and long-term swallowing results of surgery for pharyngeal pouch (Zenker's Diverticulum)
- 2019/PID15546 - Treatment Alternatives in adult rare disease: assessment of options in idiopathic subglottic stenosis

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- Department of Otolaryngology Head and Neck, University of Sydney
- Department of Otolaryngology Head and Neck Surgery, Macquarie University



CURRENT RESEARCH ACTIVITY

- Endoscopic management of ear lesions
- Endolymphatic sac tumour removal
- Assessment of ENT instruction videos
- Development of ground truth for neural network assessment of endoscopic ear surgery videos
- Underwater endoscopic ear surgery methods
- Underwater endoscopic repair of labyrinthine fistula
- Environmental exposures and otitis media among Australian children
- Improvement in endoscopic ear surgery skills with simulator practice
- Endoscopic anatomy of the eustachian tube and the carotid artery

- Assessment of outcome in idiopathic subglottic stenosis (Multicentre study)
- The short and long-term swallowing results of surgery for pharyngeal pouch questionnaire based study
- Projects on oral cavity squamous cell carcinoma
- Quality of life after treatment for laryngeal SCC
- Minor salivary gland malignancies
- Regional recurrence of head and neck mucosal SCC
- Evaluating the utility of week 12 and week 16 post treatment FDG-PET scans in patients with head and neck cancer
- Primary salivary gland malignancy survival
- Accuracy of diagnostic tests in salivary tumours
- Outcomes and pathological features of transglottic laryngeal SCC
- Paraganglioma – clinicopathological analyses



PUBLICATIONS

2022

Li et al. **2022** "Reference rate for post-tonsillectomy haemorrhage in Australia-A 2000-2020 national hospital morbidity database analysis." **PLoS One** 17: e0273320 PMID:36006990 Surgical Staff: **Martin Forer, David Veivers**

Li et al. **2022** "Incidence and trends of middle ear cholesteatoma surgery and mastoidectomy in Australia-A national hospital morbidity database analysis." **Laryngoscope Investig Otolaryngol** 7: 210-218 PMID:35155800 Surgical Staff: **Nicholas Jufas, Martin Forer, Nirmal Patel**

Oh et al. **2022** "Assessing the Quality of Patient Information for Vestibular Schwannoma on the Open Source Video Sharing Platform YouTube." **Otol Neurotol** 43: e316-e322 PMID:35147602 Surgical Staff: **Nicholas Jufas, Nirmal Patel**

Hannigan et al. **2022** "A Portrait of Menière's Disease Using Contemporary Hearing and Balance Tests." **Otol Neurotol** 43: e489-e496 PMID:35085109 Surgical Staff: **Justin Kong**

Patel et al. **2022** "Otology Demystified – A Diagnostic Oto-Endoscopic Colour Atlas." **Laryngoscope** ISBN: 978-93-5636-708 Surgical Staff: **Nirmal Patel**

Kondo et al. **2022** "Cochlear Implantation in Far Advanced Otosclerosis - A Meta-analysis and Systematic Review." **Laryngoscope** 133:1288-1296 PMID: 36082830 Surgical Staff: **Nicholas Jufas, Nirmal Patel**

Veivers D et al. **2022** "The Indoor Environment and Otitis Media among Australian Children: A National Cross-Sectional Study." **Int J Environ Res Public Health** 19: 1551 PMID: 35162576 Surgical Staff: **David Veivers**

Hoffman et al. **2022** "Impact of Serial Intralesional Steroid Injections on Idiopathic Subglottic Stenosis." **Laryngoscope** 133: 2255-2263 Surgical Staff: **David Veivers**

2021

Ridge et al. **2021** "International Survey of Operative Practices for Otolologists and Neurotologists During the COVID-19 Crisis." **Otol Neurotol** 42: 1275-1284 PMID:34398111 Surgical Staff: **Nirmal Patel**

Sutherland et al. **2021** "Volumetric magnetic resonance imaging analysis of multilevel upper airway surgery effects on pharyngeal structure." **Sleep** 44: 183 PMID:34283220 Surgical Staff: **Nicholas Stow**

Hoskison et al. **2021** "Endoscopic Stapedotomy: A Systematic Review." **Otol Neurotol** 42: e1638-e1643 PMID:34267093 Surgical Staff: **Nicholas Jufas, Justin Kong, Nirmal Patel**

Quick et al. **2021** "Endoscopic Management of Early Stage Middle Ear Paragangliomas - An Australian Case Series." **Otol Neurotol** 42: e1677-e1682 PMID:34121083 Surgical Staff: **Justin Kong, Nirmal Patel**

Cheng et al. **2021** "Balloon dilation eustachian tuboplasty for dilatory dysfunction: Safety and efficacy analysis in an Australian cohort." **ANZ J Surg** 91: 1480-1484 PMID:34075678 Surgical Staff: **Nicholas Jufas, Justin Kong, Nirmal Patel**

Mooney et al. **2021** "Endoscopic Repair of a Temporal Bone Pneumatocoele." **Otol Neurotol** 42: e972 PMID:33859135 Surgical Staff: **Nirmal Patel**

Lee et al. **2021** "Association of Social Determinants of Health with Time to Diagnosis and Treatment Outcomes in Idiopathic Subglottic Stenosis." **Ann Otol Rhinol Laryngol** 130: 1116-1124 PMID:33629608 Surgical Staff: **David Veivers**

Neves Cavada et al. **2021** "Intracanalicular Vestibular Schwannoma: A Systematic Review and Meta-analysis of Therapeutics Outcomes." **Otol Neurotol** 42: 351-362 PMID:33555742 Surgical Staff: **Nicholas Jufas, Nirmal Patel**

Simon et al. **2021** "IVORY Guidelines (Instructional Videos in Otorhinolaryngology by YO-IFOS): A Consensus on Surgical Videos in Ear, Nose, and Throat." **Laryngoscope** 131: E732-E737 PMID:33270236 Surgical Staff: **Nirmal Patel**

Saxby et al. **2021** "Novel Radiologic Approaches for Cholesteatoma Detection: Implications for Endoscopic Ear Surgery." **Otolaryngol Clin North Am** 54: 89-109 PMID:33153729 Surgical Staff: **Nicholas Jufas, Justin Kong, Nirmal Patel**

Lam et al **2021** "Nasal turbinate mucosal graft for management of contracted anophthalmic socket." **Orbit** 42:323-32 PMID: 34847840 Surgical Staff **David Veivers**

Hoffman et al. **2021** "Impact of Adjuvant Medical Therapies on Surgical Outcomes in Idiopathic Subglottic Stenosis." **Laryngoscope** 131: E2880-E2886 Surgical Staff: **David Veivers**

Kimura et al. **2021** "Modeling Recurrence in Idiopathic Subglottic Stenosis With Mobile Peak Expiratory Flow" **Laryngoscope** 131: E2841-E2848 Surgical Staff: **David Veivers**

TRAUMA

Head of Department: Geoff Healy



RESEARCH SUPERVISION (2021-2022)

Brian Burns

- 2 MD Programme Students, Sydney University
- 1 Honours Project, Notre Dame University
- 2 MD Programme Students, Macquarie University



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- ITIM NSW Trauma Registry
- Aeromedical Operations NSW Ambulance Air Maestro Database

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- A Multi-centre randomised, double-blinded, placebo-controlled trial of pre-hospital treatment with tranexamic acid for severely injured patients at risk of acute traumatic coagulopathy (PATCH-Trauma Study)
- Efficacy and value in Expedited out of hospital arrEst care with rnd tidal CO₂ (ETCO₂) ECMO CPR (ECPR) - the EVIDENCE Study

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- NHMRC Clinical Trials Centre, University of Sydney
- NZ Lottery, Grants Board Translational Research Project
- Intensive Care Foundation, Research Grant
- Health Research Council of New Zealand, Research Grant



CURRENT RESEARCH ACTIVITY

- Out of hospital cardiac arrest-rural vs metropolitan incidence and outcomes
- iCa levels in severe trauma-transfused versus not transfused
- Systematic review prehospital fibrinogen concentrate and whole blood transfusion
- Efficacy and value in Expedited out of hospital arrEst care with end tidal CO₂ (ETCO₂) ECMO CPR (ECPR)
- Pre-hospital treatment with tranexamic acid for severely injured patients at risk of acute traumatic coagulopathy



PUBLICATIONS

2022

Song et al. **2022** "Improving access to extracorporeal membrane oxygenation for out of hospital cardiac arrest: pre-hospital ECPR and alternate delivery strategies." **Scand J Trauma Resusc Emerg Med** 30: 77 PMID:36566221 Surgical Staff: **Brian Burns**

Barbosa et al. **2022** "The Troublesome Ticks Research Protocol: Developing a Comprehensive, Multidiscipline Research Plan for Investigating Human Tick-Associated Disease in Australia." **Pathogens** 11: 1290 PMID:36365042 Surgical Staff: **Brian Burns**

Miller et al. **2022** "Learning from alcohol (policy) reforms in the Northern Territory (LEARNT): protocol for a mixed-methods study examining the impacts of the banned drinker register." **BMJ Open** 12: e058614 PMID:35365540 Surgical Staff: **James Smith, Jacqueline Ward**

Partyka et al. **2022** "Prehospital activation of a coordinated multidisciplinary hospital response in preparation for patients with severe hemorrhage: A statewide data linkage study of the New South Wales "Code Crimson" pathway." **J Trauma Acute Care Surg** 93: 521-529 PMID:35261372 Surgical Staff: **Brian Burns**

Ferguson et al. **2022** "Fentanyl versus placebo with ketamine and rocuronium for patients undergoing rapid sequence intubation in the emergency department: The FAKT study-A randomized clinical trial." **Acad Emerg Med** 29: 719-728 PMID:35064992 Surgical Staff: **Brian Burns**

Curtis et al. **2022** "Predictors of 12-month functional outcomes and length of stay of severely injured children in NSW, Australia. A longitudinal multi-centre study." **Injury** 53: 1684-1689 PMID:35031107 Surgical Staff: **Brian Burns**

Partyka et al. **2022** "A Multicenter evaluation of the accuracy of prehospital eFAST by a physician-staffed helicopter emergency medical service." **Emerg Radiol** 29: 299-306 PMID:34817706 Surgical Staff: **Brian Burns**

Watherston et al. **2022** "An in-field evaluation of rapid DNA instruments for disaster victim identification." **Int J Legal Med** 136: 493-499 PMID:34816308 Surgical Staff: **Jacqueline Ward**

Mitchell et al. **2022** "Determinants of long-term unplanned readmission and mortality following self-inflicted and non-self-inflicted major injury: a retrospective cohort study." **Eur J Trauma Emerg Surg** 48: 2145-2156 PMID:34792610 Surgical Staff: **Brian Burns**

Beatty et al. **2022** "The Prevent Alcohol and Risk-related Trauma in Youth (P.A.R.T.Y.) Program Questionnaire Validation Study (PQVS)." **Injury** 53: 972-976 PMID:34602246 Surgical Staff: **Geoffrey Healy**

Backus et al. **2022** "A System-based approach on burnout prevention of healthcare professionals." **Eur J Emerg Med** 29: 101-102 PMID:34483251 Surgical Staff: **Natalie May**

Curtis et al. **2022** "Pathways and factors that influence time to definitive trauma care for injured children in New South Wales, Australia." **Injury** 53: 61-68 PMID:33632604 Surgical Staff: **Brian Burns**

2021

Curtis et al. **2021** "Emergency department management of severely injured children in New South Wales." **Emerg Med Australas** 33: 1066-1073 PMID:34105264 Surgical Staff: **Brian Burns**

Curtis et al. **2021** "Response to Letter to the Editor from Carmo et al. re Pathways and factors that influence time to definitive trauma care for injured children in New South Wales, Australia." **Injury** 52: 2486-2487 PMID:33865605 Surgical Staff: **Brian Burns**

Mitra et al. **2021** "Protocol for a multicentre prehospital randomised controlled trial investigating tranexamic acid in severe trauma: the PATCH-Trauma trial." **BMJ Open** 11: e046522 PMID:33722875 Surgical Staff: **Brian Burns**

Shand et al. **2021** "Retrieval transfusion protocol in New South Wales, Australia: A retrospective review of the first 5 years." **Transfusion** 61: 730-737 PMID :33615494 Surgical Staff: **Brian Burns**

Peden et al. **2021** "Description and prediction of outcome of drowning patients in New South Wales, Australia: protocol for a data linkage study." **BMJ Open** 11: e042489 PMID:33452197 Surgical Staff: **Brian Burns**

Asha et al. **2021** "Neurologic outcomes following the introduction of a policy for using soft cervical collars in suspected traumatic cervical spine injury: A retrospective chart review." **Emerg Med Australas** 33: 19-24 PMID:33037781 Surgical Staff: **Geoffrey Healy, Alexander Tzannes**

Mitra et al. **2021** "Protocol for a multicentre prehospital randomised controlled trial investigating tranexamic acid in severe trauma: the PATCH-Trauma trial." **BMJ Open** 11:e046522 PMID: 33722875 Surgical Staff: **Brian Burns**

Shand et al. **2021** "Retrieval transfusion protocol in New South Wales, Australia: A retrospective review of the first 5 years."
Transfusion 61:730-737 PMID: 33615494 Surgical Staff: **Brian Burns**

Qurashi et al. **2021** "Overnight or Short Stay Joint Replacements in the Public and Private settings: An Australian Experience." **Reconstructive Review** 11 Surgical Staff: **William Bestic**

UPPER GASTROINTESTINAL SURGERY

Head of Department: Garrett Smith



RESEARCH SUPERVISION (2021-2022)

Thomas Hugh

- Supervision of higher degree research
 - University of Sydney supervision of higher degree research course completed
 - University of Sydney accredited supervisor
- Current lead supervisor roles
 - 3 PhD Students (CRLM, Hernia)
 - 1 Master of Philosophy (Medicine) Student
 - 1 Master of Surgery Student
- Research collaboration
 - National
 - Prof Mark Molloy (Colorectal Cancer, Kolling)
 - RACS ASERNIP-S and the University of Adelaide (including COVID collaborative studies)
 - International
 - Dr Saxon Connor (Christchurch, NZ)
 - Prof Tim Pawlik (The Ohio State University Wexner Medical Center)
 - Associate Professor Aniruddha Chatterjee, University of Otago, NZ

Anubhav Mittal

- 3 SMP MD Students
- 1 Honours Student (Supervisor)
- 2 Master of Philosophy (Supervisor and Co-Supervisor)
- 1 PhD Student (Co-Supervisor)

Jaswinder Samra

- 3 SMP MD Students (Co-Supervisor)
- 1 Master of Philosophy Student (Co-Supervisor)
- 1 PhD (Co-Supervisor)

Garrett Smith

- 1 SMP MD Research Student
- 1 Master of Surgery Student



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Prospective Upper GI total practice clinical database (2011-2020)
- Oesophago-Gastric cancer database (2001-2020)
- Bariatric clinical database (2000-2020)
- Paraoesophageal hernia and Fundoplication database (2001-2020)
- Prospective liver resection database (1998-2024)
- Prospective laparoscopic cholecystectomy database (1998-2024)
- Prospective pancreatic resection database (2011-2020)
- Hepato-Biliary tumour bank linked to the prospective clinical database (1998 - 2024)

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- 2018 RESP/16/76: Improving care in patients with pancreatic tumours –tissue and data banking, and low/negligible risk observational studies in patients with pancreatic tumours.
- 2019/ETH12206: Improving care in patients with liver and biliary tumours - tissue and data banking and low risk observational studies in patients with hepato-biliary tumours
- 2019/ETH08462: Microenvironmental biomarkers in primary and metastatic colorectal cancer
- 2019/ETH00061: Evaluating long-term patient outcomes and evidence in hernia repair
- 2019/ETH10589: Survival after resection of gallbladder carcinoma - external validation of a prognostic nomogram based on clinical and histopathological characteristics
- 2020/PID01269: A case series on obturator hernia: clinical presentation and management
- 2021/PID00709: Intra-operative findings at laparoscopic cholecystectomy: the impact of a difficult operation
- 2021/PID00617 The ERACS Trial: Enhanced Recovery from Articulated Continuous Suture vs tacks during laparoscopic ventral hernia repair, a randomised controlled trial
- 2022/PID01614: Codesigning perioperative assessment for patients having major elective surgery

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- Speciality of Surgery, University of Sydney
- The Bowel Cancer and Biomarker Laboratory, Kolling Institute
- CanSur foundation, Kolling Institute
- All upper GI tumours resected at RNSH and NSPH including sera (2001-2020) – stored in the Kolling Institute tumour bio-bank



CURRENT RESEARCH ACTIVITY

OESOPHAGOGASTRIC CANCER

- Outcomes following benign foregut surgery including quality of life assessment
- Outcomes following oesophago-gastric cancer surgery
- Characterising the laparoscopic bypass learning curve in an Australian context (cohort study)
- The impact of age on the management and outcome of patients undergoing resection for oesophageal and gastric cancer (cohort study)
- Cohort study on whether neoadjuvant chemoradiotherapy increases post-operative complications following oesophagectomy
- Incidence and hospital health care costs of cervical anastomotic leaks in oesophagectomy patients (cohort study)
- Long term quality of life and nutritional outcomes study following oesophagectomy
- Cohort study into whether surgical approach (Ivor Lewis vs. Three stage) impact post-operative complications following an oesophagectomy

HEPATOBIILIARY SURGERY AND HERNIA

- A comparison of 2D and 3D imaging for laparoscopic cholecystectomy using an objective scoring tool and AI
- A review of the clinical and economic implications of a “difficult” GB during laparoscopic cholecystectomy
- Systematic review of predictive biomarkers in cholangiocarcinoma
- Economic cost of treatment of colorectal liver metastases
- Systematic review of the use of a HIDA scan in patients with acalculous biliary symptoms
- A validation of the NSQIP surgical risk score after liver resection: a single institution analysis of 20 years of consecutive hepatectomies (cohort study)
- Cholangiocarcinoma patterns of presentation, treatment, survival and disease recurrence over a 20 year period in a large tertiary Australian hospital
- Variation in clinical practice related to hernia surgery

PANCREATIC SURGERY

- Review of pancreatitis related to percutaneous transhepatic cholangiography at the Northern Campus
- Benchmarking in pancreatic surgery to compare the Northern Campus outcomes against published studies
- Management of acute cholecystitis in patients with biliary stenting during neoadjuvant therapy in patients with pancreatic adenocarcinoma (cohort study)
- Serum biomarkers in pancreatic cancer (several cohort studies)
- Gene expression analysis of pancreatic ductal adenocarcinomas (PDAC) to identify surrogate markers for molecular phenotypes of PDAC
- Urinary metabolomic biomarkers for PDAC
- Stage IV PDAC resections – study of prognosis and survival
- Drain Fluid analysis to identify biomarkers for the development of pancreatic fistula in PDAC patients
- The role and indication for staging laparoscopy in pancreatic cancers
- Association between NAC and portal vein resections in PDAC
- Proteomic analysis of surgically resected PDAC tumours to compare response to neoadjuvant chemotherapy
- Plasma proteomic analysis to identify prognostic and diagnostic biomarkers for PDAC



PUBLICATIONS

2022

Rykina-Tameeva et al. **2022** "Drain fluid biomarkers for prediction and diagnosis of clinically relevant postoperative pancreatic fistula: A narrative review." **World J Gastrointest Surg** 14: 1089-1106 PMID:36386401 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Sutherland et al. **2022** "The effect of surgical weight loss on upper airway fat in obstructive sleep apnoea." **Sleep Breath** PMID:36301383 Surgical Staff: **Garett Smith**

Mills et al. **2022** "Regional variation and rising costs of groin hernia repairs in Australia: is there an urgent need for clinical consensus guidelines?" **ANZ J Surg** 92: 2408-2411 PMID:36221200 Surgical Staff: **Thomas Hugh**

Jambor et al. **2022** "The role of staging laparoscopy in pancreatic adenocarcinoma and its effect on patients' survival." **World J Surg Oncol** 20: 337 PMID:36217193 Surgical Staff: **Anubhav Mittal, Jaswinder Samra**

Bhimani et al. **2022** "Correction: Lifetime direct healthcare costs of treating colorectal cancer: a systematic review." **Eur J Health Econ** 23: 1413 PMID:36136172 Surgical Staff: **Thomas Hugh**

Bhimani et al. **2022** "Cost of treating metastatic colorectal cancer: a systematic review." **Public Health** 211: 97-104 PMID:36063775 Surgical Staff: **Thomas Hugh**

Tranter-Entwistle et al. **2022** "Use of prospective video analysis to understand the impact of technical difficulty on operative process during laparoscopic cholecystectomy." **HPB (Oxford)** 24: 2096-2103 PMID:35961932 Surgical Staff: **Thomas Hugh**

Percy et al. **2022** "Defining the rate of nutritional and metabolic derangements after pancreatic resection." **Pancreatology** 22: 1028-1034 PMID:35948507 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Fuchs et al. **2022** "Necrosis is an independent predictor of disease-free and overall survival in pancreatic well-differentiated neuroendocrine tumours (NETs): a proposal to include it in grading systems." **Pathology** 54: 855-862 PMID:35934531 Surgical Staff: **Anubhav Mittal, Jaswinder Samra**

Nahm et al. **2022** "The Right Treatment Strategy for the Right Patient: A Biomarker-Driven Approach to Neoadjuvant vs. Surgery-First Management of Resectable and Borderline Resectable Pancreatic Cancer." **Cancers (Basel)** 14: 3620 PMID:35892879 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Gillson et al. **2022** "Autophagy: A Key Player in Pancreatic Cancer Progression and a Potential Drug Target." **Cancers (Basel)** 14: 3528 PMID:35884592 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Ofri et al. **2022** "Synchronous Operable Pancreatic and Breast Cancer Without Genetic Mutation: A Literature Review and Discussion." **Front Surg** 9: 858349 PMID:35813042 Surgical Staff: **Samriti Sood, Jaswinder Samra, Anubhav Mittal**

Wong et al. **2022** "Prognostic Models Incorporating RAS Mutation to Predict Survival in Patients with Colorectal Liver Metastases: A Narrative Review." **Cancers (Basel)** 14: 3223 PMID:35804994 Surgical Staff: **Thomas Hugh**

Bhimani et al. **2022** "Cost of colorectal cancer by treatment type from different health economic perspectives: A systematic review." **Eur J Surg Oncol** 48: 2082-2093 PMID:35787341 Surgical Staff: **Thomas Hugh**

Kulasegaran et al. **2022** "A case of acute cervical diverticulitis involving the colonic graft for oesophageal atresia." **ANZ J Surg** 92: 1579 PMID:35688645 Surgical Staff: **Garett Smith**

Kulasegaran et al. **2022** "A minimally invasive approach to the management of Boerhaave's: is it feasible? Letter to editor." **ANZ J Surg** 92: 1578 PMID:35688644 Surgical Staff: **Steven Leibman**

Wong et al. **2022** "Proteomic Profiling and Biomarker Discovery in Colorectal Liver Metastases." **Int J Mol Sci** 23: 6091 PMID:35682769 Surgical Staff: **Thomas Hugh**

Wong et al. **2022** "Recurrence patterns predict survival after resection of colorectal liver metastases." **ANZ J Surg** 92: 2149-2156 PMID:35666139 Surgical Staff: **Thomas Hugh**

Kovoor et al. **2022** "Achieving safe surgery after COVID-19 vaccination." **ANZ J Surg** 92: 946-949 PMID:35535005 Surgical Staff: **Thomas Hugh**

Reinehr et al. **2022** "Anatomy of the neural fibers at the superior mesenteric artery-a cadaver study." **Langenbecks Arch Surg** 407: 2347-2354 PMID:35505146 Surgical Staff: **Anubhav Mittal, Jaswinder Samra**

Davis et al. **2022** "Persistent low rates of same-day umbilical hernia repair in Australia over the past 20 years: is there a need to change?" **ANZ J Surg** 92: 2511-2516 PMID:35437895 Surgical Staff: **Thomas Hugh**

Borruso et al. **2022** "Do you get the GIST? Successful resection of a giant 3.5kg gastrointestinal stromal tumour." **ANZ J Surg** 92: 3356-3359 PMID:35343626 Surgical Staff: **Anubhav Mittal, Jaswinder Samra**

Masuda et al. **2022** "A Rare Cause of Hemoperitoneum." **Gastroenterology** 163: e8-e10 PMID:35248540 Surgical Staff: **Jaswinder Samra**

Bin Mohamed Ebrahim et al. **2022** "Greater omental infarction." **ANZ J Surg** 92: 3080-3081 PMID:35174609 Surgical Staff: **Steven Leibman, Garett Smith**

Mills et al. **2022** "Same-day inguinal hernia repair in Australia, 2000-19." **Med J Aust** 216: 303-304 PMID:35122258 Surgical Staff: **Thomas Hugh**

Lim et al. **2022** "Construction of a pancreatojejunostomy with an external stent: A technical description." **J Surg Oncol** 125: 976-981 PMID:35099826 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Wong et al. **2022** "Performance of prognostic models incorporating KRAS mutation status to predict survival after resection of colorectal liver metastases." **HPB (Oxford)** 24: 1316-1325 PMID:35093297 Surgical Staff: **Thomas Hugh**

Vuille-Dit-Bille et al. **2022** "Extended versus standard lymph node dissection for pancreatic head and periampullary adenocarcinoma: systematic review." **Br J Surg** 109: e52-e53 PMID:35041744 Surgical Staff: **Jaswinder Samra**

Brown et al. **2022** "Cancer-associated stroma reveals prognostic biomarkers and novel insights into the tumour microenvironment of colorectal cancer and colorectal liver metastases." **Cancer Med** 11: 492-506 PMID:34874125 Surgical Staff: **Kai Brown, Jaswinder Samra, Thomas Hugh**

Borruso et al. **2022** "Rare anastomosis between a replaced right hepatic artery and left branch of the proper hepatic artery." **Surg Radiol Anat** 44: 137-141 PMID:34837499 Surgical Staff: **Anubhav Mittal, Jaswinder Samra**

Masuda et al. **2022** "Clinical suspicion of pancreatic cancer despite negative endoscopic ultrasound-guided fine-needle aspiration biopsy." **ANZ J Surg** 92: 99-108 PMID:34636123 Surgical Staff: **Anubhav Mittal, Jaswinder Samra**

Groen et al. **2022** "Pain management, fluid therapy and thromboprophylaxis after pancreatoduodenectomy: a worldwide survey among surgeons." **HPB (Oxford)** 24: 558-567 PMID:34629261 Surgical Staff: **Jaswinder Samra**

Chui et al. **2022** "Sheep in wolf's clothing: squamoid cysts of the pancreatic ducts." **ANZ J Surg** 92: 1235-1237 PMID:34605139 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Lim et al. **2022** "Letter to the editor regarding "The role of acinar content at pancreatic resection margin in the development of postoperative pancreatic fistula and acute pancreatitis after pancreaticoduodenectomy." **Surgery** 171: 561 PMID:34247839 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Heidsma et al. **2022** "International Validation of a Nomogram to Predict Recurrence after Resection of Grade 1 and 2 Nonfunctioning Pancreatic Neuroendocrine Tumors." **Neuroendocrinology** 112: 571-579 PMID:34343138 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Pandya et al. **2022** "Sheep in wolf's clothing: A case of mistaken identity-Intestinal mesenteritis." **ANZ J Surg** 92: 287-289 PMID:34151500 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Ali et al. **2022** "Prognostic implications of microRNA-21 overexpression in pancreatic ductal adenocarcinoma: an international multicenter study of 686 patients." **Am J Cancer Res** 12: 5668-5683 PMID:36628279 Surgical Staff: **Jaswinder Samra**

Lima et al. **2022** "Tumor Burden Score and Serum Alpha-fetoprotein Subclassify Intermediate-Stage Hepatocellular Carcinoma." **J Gastrointest Surg** 26: 2512-2521 PMID:36171471 Surgical Staff: **Thomas Hugh**

Moazzam et al. **2022** "Impact of tumor burden score on timing and patterns of recurrence after curative-intent resection of hepatocellular carcinoma." **Surgery** 172: 1448-1455 PMID:36031442 Surgical Staff: **Thomas Hugh**

Alaimo et al. **2022** "A comprehensive preoperative predictive score for post-hepatectomy liver failure after hepatocellular carcinoma resection based on patient comorbidities, tumor burden, and liver function: the CTF score." **J Gastrointest Surg** 26: 2486-2495 PMID:36100827 Surgical Staff: **Thomas Hugh**

Halle-Smith et al. **2022** "Perioperative interventions to reduce pancreatic fistula following pancreatoduodenectomy: meta-analysis." **Br J Surg** 109: 812-821 PMID:35727956 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Chui et al. **2022** "Biliary Metastases from Colon Cancer: A Rare Differential Diagnosis for Obstructive Jaundice." **American journal of surgical case reports** 4: 2-3 Surgical Staff: **Thomas Hugh, Nazim Bhimani**

Ubel et al. **2022** "Severity of oEsophageal Anastomotic Leak in patients after oesophagectomy: the SEAL score." **Br J Surg** 109: 864-871 PMID:35759409 Surgical Staff: **Garett Smith, Nazim Bhimani**

Zhang et al. **2022** "Non-transplantable Recurrence After Resection for Transplantable Hepatocellular Carcinoma: Implication for Upfront Treatment Choice." **J Gastrointest Surg** 26: 1021-1029 PMID:34797558 Surgical Staff: **Thomas Hugh**

Wei et al. **2022** "Postoperative Infectious Complications Worsen Long-Term Survival After Curative-Intent Resection for Hepatocellular Carcinoma." **Ann Surg Oncol** 29: 315-324 PMID:34378089 Surgical Staff: **Thomas Hugh**

2021

Mehta et al. **2021** "Corrigendum: Serum Biomarker Panel for Diagnosis and Prognosis of Pancreatic Ductal Adenocarcinomas." **Front Oncol** 11: 774861 PMID:34692555 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Murphy et al. **2021** "Intravital imaging technology guides FAK-mediated priming in pancreatic cancer precision medicine according to Merlin status." **Sci Adv** 7: eabh0363 PMID:34586840 Surgical Staff: **Jaswinder Samra**

Kotecha et al. **2021** "Pancreatic solid pseudopapillary neoplasm: a single-institution study." **ANZ J Surg** 91: 2453-2458 PMID:34427035 Surgical Staff: **Anubhav Mittal, Jaswinder Samra**

Parsonson et al. **2021** "Real world outcomes of neoadjuvant chemotherapy and radiotherapy for borderline resectable pancreatic cancer: a multicentre observational study." **ANZ J Surg** 91: 2447-2452 PMID:34427029 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Oar et al. **2021** "AGITG MASTERPLAN: a randomised phase II study of modified FOLFIRINOX alone or in combination with stereotactic body radiotherapy for patients with high-risk and locally advanced pancreatic cancer." **BMC Cancer** 21: 936 PMID:34412605 Surgical Staff: **Jaswinder Samra**

Elfadaly et al. **2021** "Impact of Tumor Burden Score on Conditional Survival after Curative-Intent Resection for Hepatocellular Carcinoma: A Multi-Institutional Analysis." **World J Surg** 45: 3438-3448 PMID:34341844 Surgical Staff: **Thomas Hugh**

Hipperson et al. **2021** "Urinary metabolite prognostic biomarker panel for pancreatic ductal adenocarcinomas." **Biochim Biophys Acta Gen Subj** 1865: 129966 PMID:34329704 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Kiat et al. **2021** "How to do a retroperitoneoscopic lumbar sympathectomy." **ANZ J Surg** 91: 1925-1926 PMID:34309157 Surgical Staff: **Jaswinder Samra, Michael Neale**

Mehta et al. **2021** "Serum Biomarker Panel for Diagnosis and Prognosis of Pancreatic Ductal Adenocarcinomas." **Front Oncol** 11: 708963 PMID:34290990 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Maloney et al. **2021** "Optimal Upfront Treatment in Surgically Resectable Pancreatic Cancer Candidates: A High-Volume Center Retrospective Analysis." **J Clin Med** 10: PMID:34207372 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Cottle et al. **2021** "Machine Learning Algorithms, Applied to Intact Islets of Langerhans, Demonstrate Significantly Enhanced Insulin Staining at the Capillary Interface of Human Pancreatic β Cells." **Metabolites** 11: 363 PMID:34200432 Surgical Staff: **Jaswinder Samra**

Wijetunga et al. **2021** "Survival in borderline resectable and locally advanced pancreatic cancer is determined by the duration and response of neoadjuvant therapy." **Eur J Surg Oncol** 47: 2543-2550 PMID:33952409 Surgical Staff: **Anubhav Mittal, Jaswinder Samra**

Tsilimigras et al. **2021** "Serum α -Fetoprotein Levels at Time of Recurrence Predict Post-Recurrence Outcomes Following Resection of Hepatocellular Carcinoma." **Ann Surg Oncol** 28: 7673-7683 PMID:33907924 Surgical Staff: **Thomas Hugh**

Kotecha et al. **2021** "Management of a rare cause of upper gastrointestinal bleed: the duodenal gangliocytic paraganglioma." **ANZ J Surg** 91: E724-E726 PMID:33764657 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Pu et al. **2021** "Early oral protein-containing diets following elective lower gastrointestinal tract surgery in adults: a meta-analysis of randomized clinical trials." **Perioper Med (Lond)** 10: 10 PMID:33752757 Surgical Staff: **Thomas Hugh**

Damodaran Prabha et al. **2021** "The Robotic Spleen Preserving Distal Pancreatectomy Under Temporary Splenic Artery Occlusion: the Royal North Shore Technique." **J Gastrointest Surg** 25: 1936-1938 PMID:33721177 Surgical Staff: **Anubhav Mittal, Jaswinder Samra**

Tsilimigras et al. **2021** "Synergistic Impact of Alpha-Fetoprotein and Tumor Burden on Long-Term Outcomes Following Curative-Intent Resection of Hepatocellular Carcinoma." **Cancers (Basel)** 13: PMID:33670174 Surgical Staff: **Thomas Hugh**

Nahm et al. **2021** "Increased postoperative pancreatic fistula rate after distal pancreatectomy compared with pancreatoduodenectomy is attributable to a difference in acinar scores." **J Hepatobiliary Pancreat Sci** 28: 533-541 PMID:33665934 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Kovoor et al. **2021** "Proposed delay for safe surgery after COVID-19." **ANZ J Surg** 91: 495-506 PMID:33656269 Surgical Staff: **Thomas Hugh**

Wietsma et al. **2021** "Gallbladder carcinoma outcomes in an Australian tertiary referral hospital." **ANZ J Surg** 91: 603-608 PMID:33604992 Surgical Staff: **Jaswinder Samra, Thomas Hugh**

Huang et al. **2021** "Safety and Efficacy of Pancreaticoduodenectomy in Octogenarians." **Front Surg** 8: 617286 PMID:33604352 Surgical Staff: **Anubhav Mittal, Jaswinder Samra**

Lakis et al. **2021** "DNA methylation patterns identify subgroups of pancreatic neuroendocrine tumors with clinical association." **Commun Biol** 4: 155 PMID:33536587 Surgical Staff: **Jaswinder Samra**

Staerkle et al. **2021** "Extended lymph node resection versus standard resection for pancreatic and periampullary adenocarcinoma." **Cochrane Database Syst Rev** 1: CD011490 PMID:33471373 Surgical Staff: **Jaswinder Samra**

Cottle et al. **2021** "Structural and functional polarisation of human pancreatic beta cells in islets from organ donors with and without type 2 diabetes." **Diabetologia** 64: 618-629 PMID:33399909 Surgical Staff: **Jaswinder Samra**

Law et al. **2021** "Gastrointestinal: Recurrent colic and the percutaneous endoscopic gastrojejunostomy." **J Gastroenterol Hepatol** 36: 1736 PMID:33305402 Surgical Staff: **Jaswinder Samra**

Gorolay et al. **2021** "Asymptomatic thrombosis of extrahepatic portal vein aneurysm necessitating hybrid operative repair." **Vascular** 29: 762-766 PMID:33270525 Surgical Staff: **Daniel Nguyen, Jaswinder Samra, Michael Neale**

Kotecha et al. **2021** "Formation of a splenic artery aneurysm within a pancreatic mucinous cystic neoplasm." **ANZ J Surg** 91: E407-E408 PMID:33217145 Surgical Staff: **Anubhav Mittal, Jaswinder Samra**

Tsilimigras et al. **2021** "Impact of time-to-surgery on outcomes of patients undergoing curative-intent liver resection for BCLC-0, A and B hepatocellular carcinoma." **J Surg Oncol** 123: 381-388 PMID:33174627 Surgical Staff: **Thomas Hugh**

Melstrom et al. **2021** "Management of disappearing colorectal liver metastases: an international survey." **HPB (Oxford)** 23: 506-511 PMID:33144051 Surgical Staff: **Thomas Hugh**

Sahni et al. **2021** "A unique urinary metabolomic signature for the detection of pancreatic ductal adenocarcinoma." **Int J Cancer** 148: 1508-1518 PMID:33128797 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Chou et al. **2021** "A Critical Assessment of Postneoadjuvant Therapy Pancreatic Cancer Regression Grading Schemes With a Proposal for a Novel Approach." **Am J Surg Pathol** 45: 394-404 PMID:33074853 Surgical Staff: **Anubhav Mittal, Jaswinder Samra**

O'Rourke et al. **2021** "Data independent acquisition of plasma biomarkers of response to neoadjuvant chemotherapy in pancreatic ductal adenocarcinoma." **J Proteomics** 231: 103998 PMID:33027703 Surgical Staff: **Jaswinder Samra, Anubhav Mittal**

Pulvirenti et al. **2021** "Multi-institutional Development and External Validation of a Nomogram to Predict Recurrence After Curative Resection of Pancreatic Neuroendocrine Tumors." **Ann Surg** 274: 1051-1057 PMID:31567347 Surgical Staff: **Jaswinder Samra**

Wei et al. **2021** "Multi-Institutional Development and External Validation of a Nomogram for Prediction of Extrahepatic Recurrence After Curative-Intent Resection for Hepatocellular Carcinoma." **Ann Surg Oncol** 28: 7624-7633 PMID:34019181 Surgical Staff: **Thomas Hugh**

Wei et al. **2021** "Tumor Necrosis Impacts Prognosis of Patients Undergoing Curative-Intent Hepatocellular Carcinoma." **Ann Surg Oncol** 28: 797-805 PMID:33249525 Surgical Staff: **Thomas Hugh**

Ding et al. **2021** "Prediction of tumor recurrence by α -fetoprotein model after curative resection for hepatocellular carcinoma." **Eur J Surg Oncol** 47: 660-666 PMID:33082065 Surgical Staff: **Thomas Hugh**

Wei et al. **2021** "Early Versus Late Recurrence of Hepatocellular Carcinoma After Surgical Resection Based on Post-recurrence Survival: an International Multi-institutional Analysis." **J Gastrointest Surg** 25: 125-133 PMID:32128681 Surgical Staff: **Thomas Hugh**

Bhimani et al. **2021** "The prognostic significance of tumour FXD3 expression in patients with primary and secondary colorectal cancers." **Front Gastroenterol Hepatol** 1: 103 Surgical Staff: **Kai Brown, Thomas Hugh, Nazim Bhimani**

Bhimani et al. **2021** "An overview of colorectal cancer in the Australian healthcare system over the past 20 years." **Front Gastroenterol Hepatol** 1:104 Surgical Staff: **Thomas Hugh, Nazim Bhimani**

UROLOGICAL SURGERY

Head of Department: Justin Vass



RESEARCH SUPERVISION (2021-2022)

Venu Chalasani

- Urology Lecturer, University of Sydney

Amanda Chung

- Senior Urology Lecturer, Macquarie University



DEPARTMENTAL RESEARCH RESOURCES

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- Uromune in spinal cord injured patients
- Microdox in spinal cord injured patients

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- Departments of Urology and Pathology, Concord Repatriation General Hospital



CURRENT RESEARCH ACTIVITY

- Laser (Evolve) prostatectomy
- Microdox for recurrent urinary tract infections in patients with spinal cord injuries
- Uromune in patients with spinal cord injuries
- Quality of stone prevention information on YouTube
- TWISS score
- Urethral trauma
- Bladder cancer in spinal cord injured patients
- Percutaneous tibial nerve stimulation
- Telehealth in clinics
- Frailty and TOV results
- Local perineal mass following TP biopsy
- SCC in urethra



PUBLICATIONS

2022

Parkin et al. **2022** "A NuvaRing caught in the wrong spot." **ANZ J Surg** 92: 259-262 PMID:34096677 Surgical Staff: **Krishan Rasiah**

Kovacic et al. **2022** "Midline extraperitoneal approach to retroperitoneal pathology - broadening the horizons." **ANZ J Surg** 92: 3033-3036 PMID:35988162 Surgical Staff: **Justin Vass, Matthew Winter**

Parkin et al. **2022** "The safety of surgical mesh: what is online video content teaching our patients?" **BJU Int** 130: 25-27 PMID:35261145 Surgical Staff: **Amanda Chung**

Jiang et al. **2022** "A rare case of urachal mucinous adenocarcinoma detected by 18F-FDG PET/CT and MRI." **Radiol Case Rep** 17: 1231-1235 PMID:35198084 Surgical Staff: **Matthew Winter**

Ong et al. **2022** "Large variation in conservative management of low-risk prostate cancer in Australia and New Zealand." **BJU Int** 130: 17-19 PMID:35076135 Surgical Staff: **Venu Chalasani, Matthew Winter**

Hayne et al. **2022** "Pain-free TRUS B': a phase 3 double-blind placebo-controlled randomized trial of methoxyflurane with periprostatic local anaesthesia to reduce the discomfort of transrectal ultrasonography-guided prostate biopsy (ANZUP 1501)." **BJU Int** 129: 591-600 PMID:34273231 Surgical Staff: **Venu Chalasani**

Kovacic et al. **2022** "Busting for change: a care pathway for overactive bladder." **Trends Urology & Men Health** 13:17-21 Surgical Staff: **Amanda Chung**

Pham et al. **2022** "Mesenteric misadventure: An unusual suprapubic catheter complication." **Current Urology** doi: 10.1097/CU9.000000000000095 Surgical Staff: **Amanda Chung**

Parkin et al. **2022** "The safety of surgical mesh: what is online video content teaching outpatients?" **BJU International** 130: 25-27 PMID: 35261145 Surgical Staff: **Amanda Chung**

Zhuo et al. **2022** "The prostate problem you can't put your finger on the normal way. A case of perineal prostate cancer post transperineal prostate biopsy." **Société Internationale d'Urologie Journal** 4: 232-233 Surgical Staff: **Amanda Chung, Venu Chalasani**

Zhuo et al. **2022** "Down the Not So Straight and Narrow: A Rare Case of Primary Urethral Squamous Cell Carcinomas in a Young Patient." **Société Internationale d'Urologie Journal** 3: 109-110 Surgical Staff: **Amanda Chung**

Kam et al. **2022** "Initial experience of the first inhuman trial of focal laser ablation (ProFocal-Rx (TM)) for localised prostate cancer: Is PSA sufficient for follow-up?" **International Journal of Urology** 29: 109-109 Surgical Staff: **Matthew Winter**

Pham et al. **2022** "Robotic simple prostatectomy for a huge prostate preventing retrograde access to an obstructed stone." **International Journal of Urology** 29: 88-88 Surgical Staff: **Matthew Winter**

Kam et al. **2022** "Transperineal spaceoar hydrogel insertion and rectal toxicity." **International Journal of Urology** 29: 123 Surgical Staff: **Matthew Winter**

Pham et al. **2022** "Robotic repair of indirect inguinoscrotal bladder hernia." **Urology Video Journal** 13: 100122 Surgical Staff: **Matthew Winter**

Kam et al. **2022** "Is 3 months following focal laser therapy of the prostate adequate to assess histopathological changes?" **International Journal of Urology** 29: 111 Surgical Staff: **Matthew Winter**

Kam et al. **2022** "Initial experience of the first in-human trial of focal laser ablation with ProFocal-Rx (TM) for localised prostate cancer" **International Journal of Urology** 29: 107 Surgical Staff: **Matthew Winter**

Reddy et al. **2022** "Real-world cost for first-line treatment for prostate cancer: A comparative cost analysis in the public sector." **European Urology** 81: S9 Surgical Staff: **Matthew Winter**

Jackson et al. **2022** "Complications with the Adjustable TransObturator Male System (ATOMS) in a post prostatectomy cohort-5-year results of a single Australian tertiary institution." **BJU International** 129: 92-93 PMID Surgical Staff: **Matthew Winter**

Shanmugasundaram et al. **2022** "Intra-individual comparison of Ga-68 PSMA PET/CT with Tc-99 bone scan for detection of skeletal metastasis during prostate cancer primary staging in a large cohort." **International Journal of Urology** 29: 133 Surgical Staff: **Matthew Winter**

Kam et al. **2022** "Initial experience of the first inhuman trial of focal laser ablation (ProFocal-Rx (TM)) for localised prostate cancer: Assessment of sexual function outcomes." **International Journal of Urology** 29: 108 Surgical Staff: **Matthew Winter**

Pham et al. **2022** "Robotic repair of vesicovaginal fistula." **International Urogynecology Journal** 33: S56 Surgical Staff: **Matthew Winter**

Hanna et al. **2022** "Real-world cost for first-line treatment for prostate cancer; A comparative cost analysis in the public sector." **BJU International** 129: 133 Surgical Staff: **Matthew Winter**

Hanna et al. **2022** "Robotic cavectomy during oncological surgery: technical considerations and outcomes." **BJU International** 129: 44-45 Surgical Staff: **Matthew Winter**

Jackson et al. **2022** "Focal therapy in prostate cancer-global state of the art, diffusion, and frontiers." **BJU International** 129: 136 Surgical Staff: **Matthew Winter**

Pham et al. **2022** "422 robotic repairs of vesicovaginal fistula." **Continence** 2: 100396 Surgical Staff: **Matthew Winter**

Hanna et al. **2022** "ProFocal-Rx™ focal laser therapy for localised prostate cancer: Initial clinical experience." **BJU International** 129: 132 Surgical Staff: **Matthew Winter**

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Hanna et al. **2021** "Double partial nephrectomy in allograft transplanted kidney." **Urol Case Rep** 35: 101517 PMID:33318944 Surgical Staff: **Venu Chalasani, Matthew Winter**

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VASCULAR SURGERY

Head of Department: Vikram Puttaswamy



DEPARTMENTAL RESEARCH RESOURCES

CLINICAL DATABASES TO SUPPORT OUTCOMES RESEARCH

- Australasian Vascular Audit (AVA)
- Registry of Endologix AFX stent-graft for the treatment of Aorto-Iliac Arterial Disease
- BCLEAR: Type B Aortic Syndrome Database
- Determining the fate of the distal aorta after Type A aortic dissection repair
- Infra-inguinal directional atherectomy database
- Zilver PTX stent database
- Endovascular Balloon Occlusion of the Aorta (EBOA) in Code Crimson Trauma
- IMPART–TRIAL multicentre database
- RANGER drug-coated balloon database

CURRENT NSLHD HUMAN RESEARCH ETHICS APPLICATION (HREA) APPROVALS

- Registry of Endologix AFX stent-graft for the treatment of Aorto-Iliac Arterial Disease – HREA approved, awaiting governance approval
- Infra-inguinal directional atherectomy: A single site retrospective analysis – HREA approved
- Determining the fate of the distal aorta after Type A aortic dissection repair
- RANGER paclitaxel coated balloon for treatment of infra-popliteal arterial steno-occlusive disease
- Bright BIOTRONIK: First-in-Human assessment of the Safety and Clinical Performance of Sirolimus Derivative-Coated Balloon in the Treatment of Subjects with de Novo Lesions in the Superficial Femoral and Proximal Popliteal Artery
- IMPART–TRIAL: Clinical trial testing the Prevena surgical incision management system in renal transplant patients
- ELEGANCE: A global prospective, non-randomized, open-label, multi-center Registry to collect Real-World Data, including health economic data, to support the use of commercially available drug-eluting BSC devices for the treatment of lesions located in the peripheral vasculature

LINKS TO TRANSLATIONAL RESEARCH PARTNERS OR UNIVERSITY DEPARTMENTS

- Discipline of Surgery, University of Sydney
- Department of Cardiology (Gemma Figtree and Ravi Bhindi)
- Department of Renal Medicine (Carol Pollack and Stella McGinn)
- Department of Microbiology (Bernie Hudson)
- Department of Radiology (Brett Lurie)
- University of Sydney Faculty of Medicine and Health – Medical Imaging
- Northern Institute Kolling Foundation – Renal Research Group
- University of Western Sydney: Medical Imaging
- ASMIRT (Australasian Society Medical Imaging and Radiation Therapy)



CURRENT RESEARCH ACTIVITY

- The ANCHOR Registry (Aneurysm Treatment Aptus™ Heli-FX™ EndoAnchor)
- Registry of Endologix AFX stent-graft for the treatment of Aorto-Iliac Arterial Disease
- BCLEAR: Type B Aortic Syndrome Database
- Determining the fate of the distal aorta after Type A aortic dissection repair

- IMPART–TRIAL: Clinical trial testing the Prevena surgical incision management system in renal transplant patients
 - Multicentre RCT involving Health Partners RPA and Westmead Hospitals
 - RNSH is the lead site and in-charge of the project
- Comparison trials of two vascular closure devices - FemoSeal™ vs StarClose™
- Mortality study of Paclitaxel use at North Shore Hospital Campus
- Study of multiple renal artery use in transplant patients
- Study of duplex ultrasound in the treatment of renal transplant patients
- Analysis of infra-inguinal directional atherectomy
 - Multi-year study assessing the HawkOne DA system in infra-inguinal occlusive disease
 - Use of HawkOne DA in common femoral artery occlusive disease
 - Safety and efficacy of directional atherectomy in In-Stent Restenosis
- RANGER paclitaxel coated balloon for treatment of infra-popliteal arterial steno-occlusive disease
- Endovascular Balloon Occlusion of the Aorta (EBOA) in Code Crimson Trauma
- Pilot Study: The Evaluation of Endoleak after EVAR using Subtraction CT Iodine Mapping
- The LIFE-BTK Randomized Controlled Trial (A pre-market evaluation of the ESPRIT BTK Everolimus Eluting Bioresorbable Scaffold System for treatment of narrowed infrapopliteal lesions in patients with arterial narrowing in infrapopliteal lesions causing Critical Limb Ischemia)
- Bright BIOTRONIK: First-in-Human assessment of the Safety and Clinical Performance of Sirolimus Derivative-Coated Balloon in the Treatment of Subjects with de Novo Lesions in the Superficial Femoral and Proximal Popliteal Artery
- First in Man study: A Prospective, Multi-Centre, Single-Arm, Feasibility Study to Assess the Safety and Performance With the SUNDANCETM Drug Coated Balloon for the Treatment of De Novo or Restenotic Lesions in Infra-Popliteal Arteries. “SWING Study”
- ALUCENT: Feasibility Study of the Restoration System (VRS) for the Treatment of Atherosclerotic Lesions in the Superficial Femoral Artery (SFA) and/or Proximal Popliteal Artery (PPA)

COLLABORATIVE WORK WITH CARDIOLOGY RESEARCH GROUP

- Dr Paul Bonnitcha: Assessment of Carotid Atherosclerotic plaques with FMISO-PET Scans (CatPET study)
- Dr Gemma Figtree: Stimulating Adrenergic Receptors to improve clinical outcomes in patients with Peripheral Arterial Disease STAR-PAD trial
- Dr Gemma Figtree: BioHEART: Cardiology Biobanking for Biomarker Discovery

NEONATAL ICU

- Neonatal ICU (Eveline Staub): Renal development in premature neonates (Vascular Ultrasound)

ICU

- Adjunctive Intermittent Pneumatic Compression for Venous Thromboprophylaxis

RHEUMATOLOGY

- Dr R Laurent: review and refinement of clinical algorithm for diagnosis of giant cell arteritis using ultrasound

RENAL

- Factors associated with functional arteriovenous fistula at hemodialysis start and arteriovenous fistula non-use in a single-center cohort



PUBLICATIONS

2022

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Thomas et al. **2022** "Antithrombotics after infra-inguinal peripheral endovascular treatment." **The Cochrane Database of Syst Rev** 2022: CD015142 PMCID: PMC8740307 Surgical Staff: **Vikram Puttaswamy**

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Joseph et al. **2021** "An unusual case of a penetrating neck injury (PNI) illustrating the use of a "no zone" approach for the management of this injury and a review of the literature." **Trauma Case Rep** 32: 100402 PMID:33644288 Surgical Staff: **Anthony Glover, Walid Mohabbat**

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Gorolay et al. **2021** "Asymptomatic thrombosis of extrahepatic portal vein aneurysm necessitating hybrid operative repair." **Vascular** 29: 762-766 PMID:33270525 Surgical Staff: **Daniel Nguyen, Jaswinder Samra, Michael Neale**



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