

# *Hand & Upper Limb Unit: Patient Care, Teaching and Research*



**Flinders**  
UNIVERSITY

Flinders University

<http://www.flinders.edu.au/medicine/sites/orthopaedics/>

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## CONTACT US

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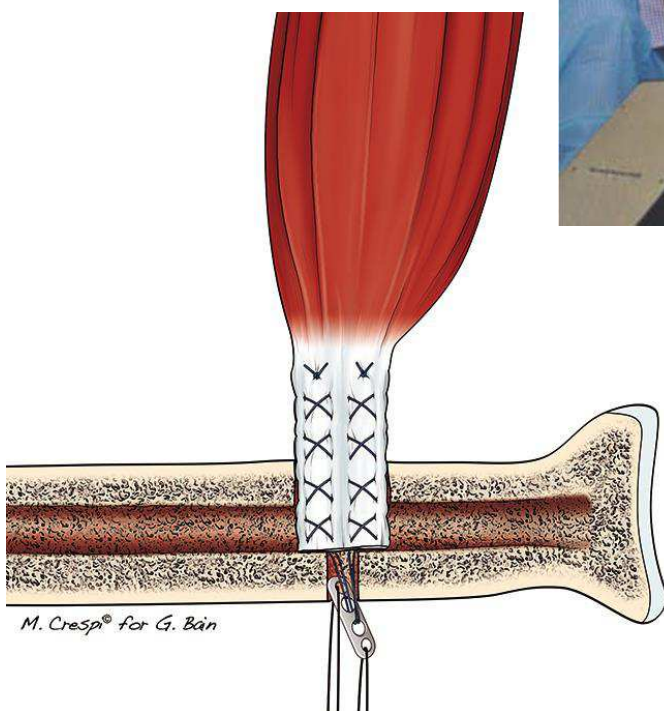
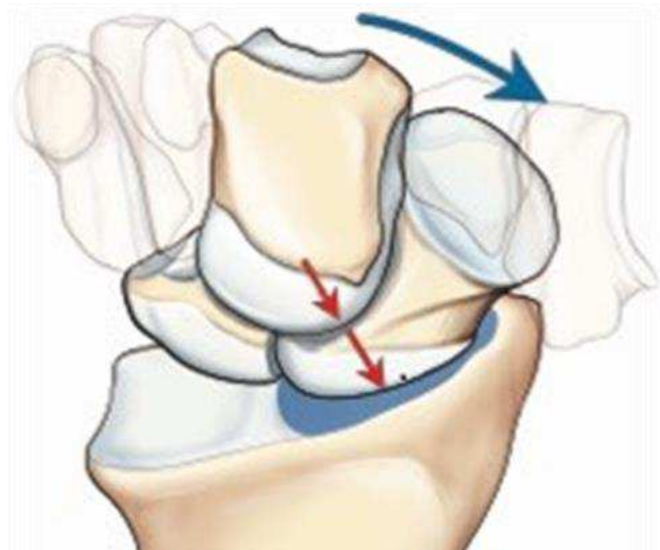


# ABOUT

The Hand and Upper Limb Unit is within the Department of Orthopaedic Surgery. It provides clinical services to Flinders Medical Centre, and Research and Teaching within the Discipline of Orthopaedics at Flinders University, South Australia. It is an innovative unit which has been led by Professor Greg Bain since 2014.

## AIM

To develop a quality clinical, research and educational team to assess and manage disorders of the hand and upper limb. To collaborate with other groups to optimize our outcomes for patients.





# RESEARCH TEAM

## PROFESSOR GREGORY BAIN – DIRECTOR

MBBS, FRACS, FA (Ortho)A, PhD



Professor Greg Bain joined Flinders University as Professor of Upper Limb and Research within the Department of Orthopaedic Surgery. He is an experienced researcher in the areas of Upper Limb Disorders, with special interests in anatomy, minimally invasive surgery, and financially sustainable medicine.

In 2009 he received the Australian Orthopaedic Association Research Award “for producing outstanding orthopaedic research that has international recognition, and research contributing to the orthopaedic community and the community generally”. In 2008 he received the Terry Whipple Award, which is awarded by the President Council of the European Wrist Arthroscopy Society (EWAS), “for his contribution to the advancement of knowledge in Wrist Arthroscopy”

He is the President of the Asia Pacific Wrist Association and Chairman of Masters Upper Limb Course for AO Foundation, Davos, Switzerland 2017. He is a former President of the Shoulder and Elbow Society of Australia and is the Chairman of the Elbow Wrist and Hand Committee, ISAKOS. He is the Deputy Editor, Journal of Wrist Surgery, and is on the Editorial Board of the Journal of Techniques of Hand and Upper Limb Surgery and the International Journal of Shoulder Surgery. He is President of the International Society for Sports Traumatology of the Hand (ISSPORTH).

## DR JOHN WHITE – UPPER LIMB ORTHOPAEDIC SURGEON

MBBS, FRCS, FRCS (TR & Orth), PhD



Dr John White is an experienced Orthopaedic Surgeon whose specialist interest is upper limb conditions, including severe Dupuytren's contracture, and musculoskeletal disorders of upper limb.

He completed a PhD in 1996 at the University of Adelaide examining the musculoskeletal problems in musicians. Following that, he undertook advanced post graduate fellowships in hand and upper limb surgery at the Royal Free Hospital and University College London Hospitals, having been granted the British Society for Surgery of the Hand Pulvertaft scholarship.

John's most recent conference presentations have been at the Performing Arts Medicine Association annual conference (New York), the Australian Hand Therapy Association annual conference (Sydney), and the International Federation of Societies for Surgery of the Hand (Buenos Aires). John has been on the Editorial Board of the Journal of the Performing Arts Medicine Association since 2013.

## DR MENG LING –UPPER LIMB AND SPORTS ORTHOPAEDIC SURGEON

BMBS, FRACS (Ortho)

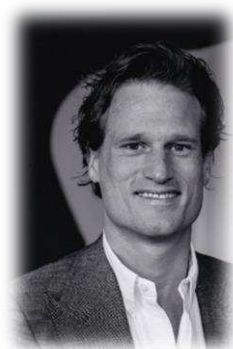


Dr Ling became a Fellow of the Australian Orthopaedic Association and was appointed to the Court of Examiners of the Royal Australasian College of Surgeons in 2015 for the Specialty Court of Orthopaedics Surgery. Dr Ling completed his Clinical Fellowship in Upper Limb Surgery in 2007 at the Queens University, Canada. Whilst in North America Dr Ling attended various workshops, courses and some short term visitations, working with well- known and respected orthopaedic surgeons, specialising in Arthroscopic, Sports Injury, and Knee Surgery.

Dr Ling is an Orthopaedic Surgeon with a principal interest in upper limb pathology sports injury and joint replacement, particularly shoulder reconstruction and replacement, and that of the hip and knee.

## DR JOB DOORNBERG – TRAUMA/UPPER LIMB FELLOW

MSc, MD, PhD



Dr Job Doornberg was trained at the University of Amsterdam Orthopaedic Residency Program, and is our current Orthopaedic Trauma Fellow at Flinders Medical Centre.

From 2016 to 2020 Job will be responsible for our PhD exchange Cotutelle program between Flinders University and the University of Amsterdam, endorsed in a bilateral 'Memorandum of Understanding' between our Universities. This PhD exchange program is built on the very productive Harvard-University of Amsterdam format that Job established in 2003 as a Harvard PhD Research Fellow, with 25 PhD Theses and almost 700 peer reviewed papers coming out of this collaborative to date.

In 2017 we will start to host 2 'Short-term' MD Candidates and 3 'Long-term' PhD Fellows from Amsterdam. Flinders Orthopaedic Trauma Research lines include: 1) smart imaging in distal radius fractures; 2) prospective assessment of complex elbow fracture patterns; 3) 3D analysis of tibial plateau fracture patterns and reduction; 4) syndesmotic injury associated with rotational type ankle fractures; and 5) tibial alignment after intramedullary nailing for tibial shaft fractures.

## DR SIMON MACLEAN – UPPER LIMB FELLOW

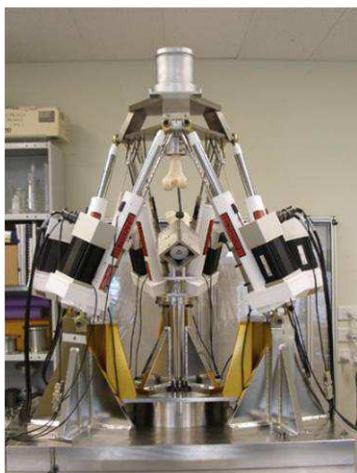
MBChB, FRCS(TR&Orth), PGDipCE



Dr Simon MacLean completed his medical school training in Manchester in 2004 and undertook junior doctor jobs in the Northwest of England. He developed an interest in Orthopaedics having sustained a number of his own injuries on the rugby field. After completing his Orthopaedic training in 2009 he undertook placements at the Royal Orthopaedic Hospital (the first Orthopaedic Hospital in the UK), and completed trauma placements at the Queen Elizabeth Hospital the largest military hospital in the UK- where he was exposed to soldiers with traumatic battlefield injuries from Afghanistan and Iraq.

Simon undertook an upper Limb fellowship with Professor Greg Bain in Adelaide between February 2016-2017. During this year he gained experience in complex upper limb trauma and elective orthopaedic surgery, including arthroscopy, arthroplasty, infection and soft tissue reconstruction of the shoulder, elbow, wrist and hand. His research interests include Kienböck's disease, distal radius fractures and advanced imaging techniques of the upper limb, including 4D dynamic CT and SPECT scanning. Simon has commenced a further fellowship at the Royal Brisbane Hospital in upper limb and microsurgery.

# RESEARCH PROJECTS



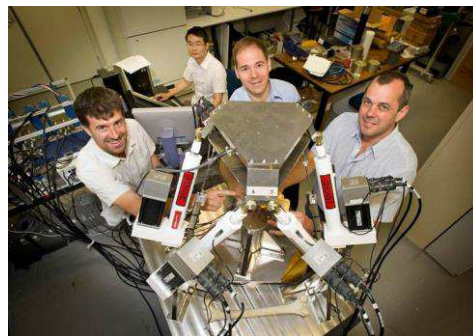
## HEXAPOD ROBOT

**Researcher: Dr David Morris**

**Collaborators: AProf John Costi AProf Dominic Thewlis**

David's research project is assessing the effect of scapholunate instability using the Hexapod.

The first project conducted on the Hexapod was an award winning project on motion kinematics.



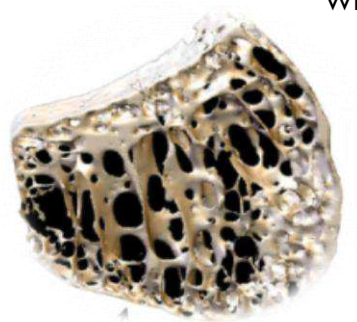
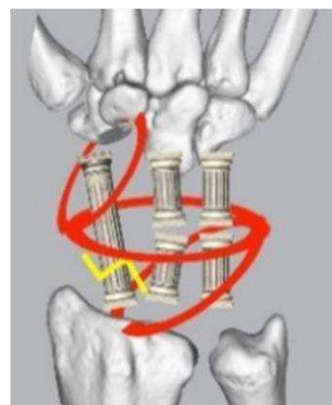
## WRIST KINEMATICS

**Researcher: Dr David Morris**

**Collaborator: AProf John Costi**

**AProf Dominic Thewlis**

With the Hexapod and anatomical studies we are developing a new understanding of assessment and treatment of wrist stability and instability.



## MICRO-CT

**Researcher: Shima, Zahrooni, Dr Egon Perilli**

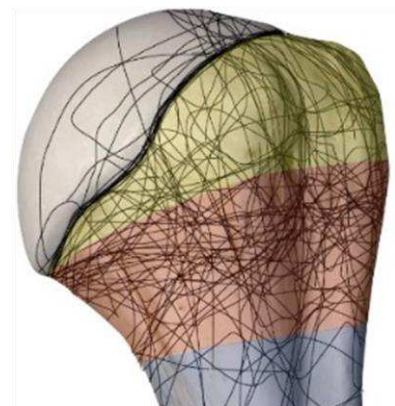
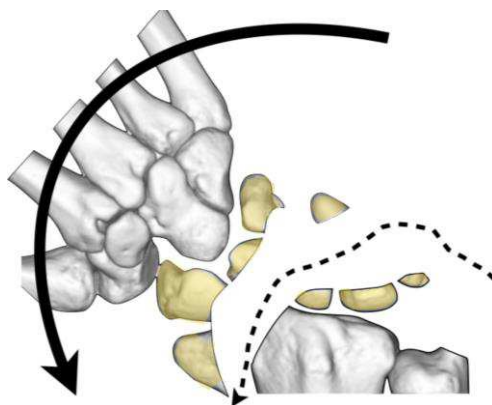
The micro-CT Scan produces amazing images of the microstructure of the osseous anatomy.

## TRANS-LUNATE CARPAL FRACTURE DISLOCATION: A SYSTEMATIC REVIEW

**Researcher: Dr Meenu Shunmugam**

**Collaborator: Dr Joideep Phadnis**

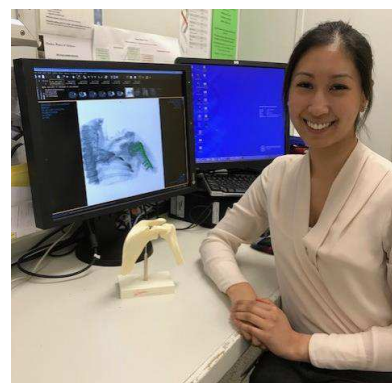
Published in the Journal of Hand Surgery



## PROXIMAL HUMERUS FRACTURES

**Researcher: Dr Afsana Hasan**

Clinical CT Scans of the fracture have been mapped onto 2D and 3D models of the proximal humerus







## SURGICAL APPROACHES TO THE ELBOW

**Researcher: Dr Tendai Mwaturura**

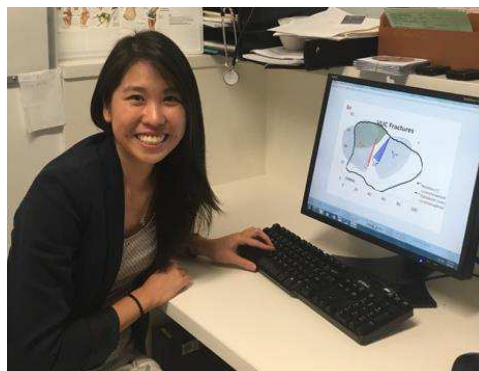
For submission to "Techniques in Sports and Trauma Surgery of the Elbow". Eds. Gregory Bain, Denise Eygendaal and Roger van Riet.  
(In press, 2018)

## DISTAL RADIUS FRACTURES

**Researcher: Dr Grace Sun**

**Collaborator: Dr Simon MacLean**

Researching distal radius fracture sub types and how they are initiated and propagated

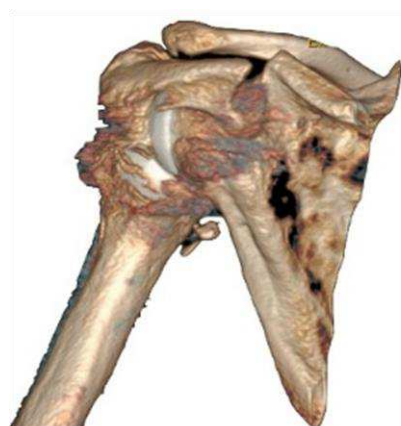


## SCAPULAR FRACTURES ASSOCIATION WITH REVERSE TOTAL SHOULDER RERPLACEMENT

**Researchers: Dr Angela Chang,  
Dr Nathan Eardley-Harris**

**Collaborator: Dr Joideep Phadnis**

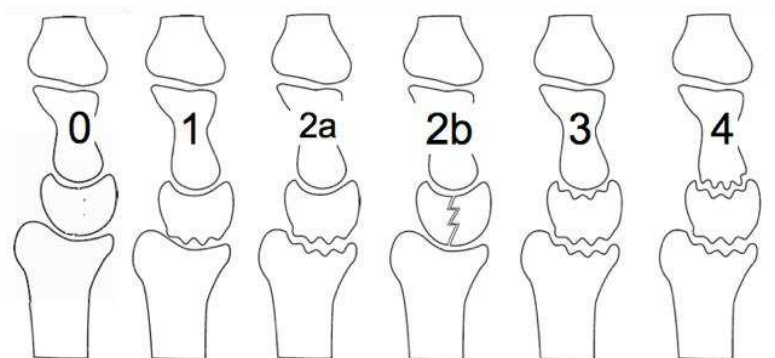
Systematic review of scapular fractures associated with reversal total shoulder arthroplasty



## LONGTERM FOLLOW-UP OF KIENBÖCK'S DISEASE

**Collaborator: Dr Simon MacLean**

Clinical review of patients who had an arthroscopic grading of the Kienböck's disease of the wrist



# RESEARCH COLLABORATION

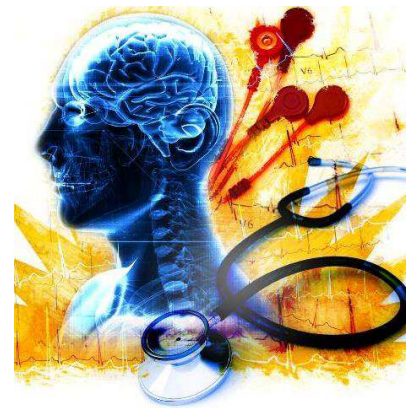
## MEDICAL DEVICE RESEARCH INSTITUTE (MDRI)



Established with the aim of making Flinders University a world leader in medical technologies. It is led by Prof Karen Reynolds and is supported by the State Government.

MDRI is committed to producing high quality research, encouraging the development of early career researchers and providing a nurturing environment for higher degree research students. Prof

Greg Bain has become part of this group and provides clinical input.



## MEDICAL DEVICE PARTNERING PROGRAM (MDPP)



The Medical Device Partnering Program (MDPP) supports the development of cutting-edge medical devices through unique

collaborations between researchers, industry, end-users and government.

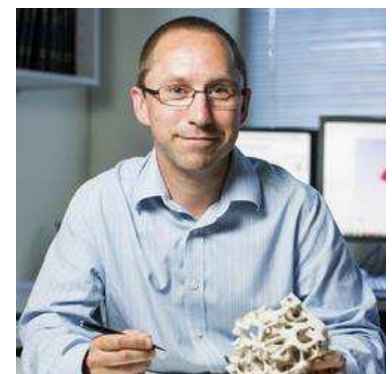
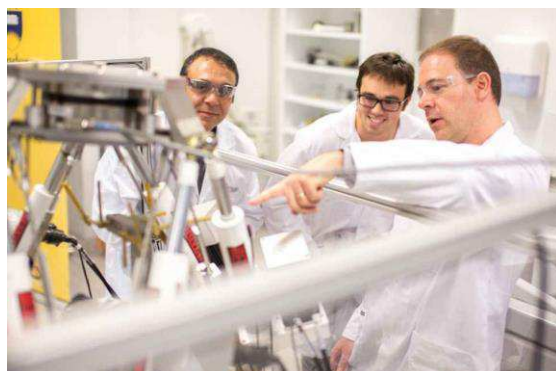


## RESEARCHERS



**Prof Karen Reynolds.** Chair of MDRI and MDPP. Experienced researcher and longtime leader and developer of new technologies. Deputy Dean, School of Computer Science, Engineering & Mathematics. Karen is also the Director of the Medical Device Research Institute and the Medical Device Partnering Program.

**Prof Mark Taylor.** Experienced musculoskeletal researcher with many years of experience with commercially founded research of total joint replacements. He also has extensive experience in finite element analysis and mathematical sciences.



**A/Prof John Costi.** Developed the Hexapod Robot and conducts undergraduate musculoskeletal biomechanics courses and manager of the cadaveric facility. His support to develop the cadaveric surgical laboratory has been critical.





**Mr David Hobbs.** Developed the gait laboratory to assess joint motion. He is co-supervisor of the hand function study performed in the gait lab.



**Dr Saulo Martelli.** ARC Linkage funded project with Prof Mark Taylor to virtually test joint replacement implants. This assists in implant design and development.



**Dr Egon Perilli.** Senior Lecturer and Secretary of Australian New Zealand Orthopaedic Research Society (ANZORS). He is an expert in state of the art micro-CT assessment of bone structure at a micro and macro level.



**Prof John Slavotinek.** Is a senior musculoskeletal radiologist. He is a co-supervisor of the 4D CT scan project.



**Professor Richard Woodman.** Biostatistician at Flinders University and works closely with clinicians on study design and statistics.

**Dr Nicola Dean.** Head of the Plastic Surgery Department at FMC.

She is the principle supervisor of the PhD of Dr Kyra Sierakowski on patient-rated outcomes for hand surgery.



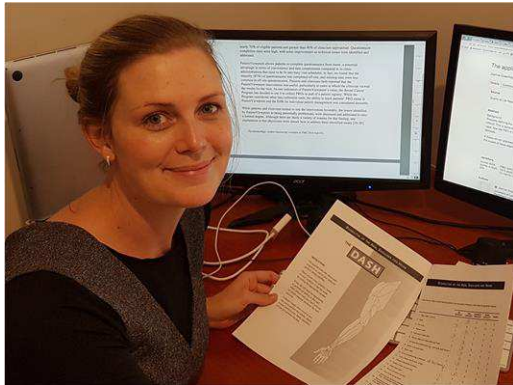
**Mr Philip Griffin.** Senior Plastic Surgeon who is a leader in hand and nerve surgery. Dr Griffin is a former President of the South Australian Hand Society. He has conducted many research projects and is a Co-supervisor of Dr Kyra Sierakowski's PhD.

**Dr Christine Redmond PhD.** Academic physiotherapist with a special interests in self-management of chronic conditions and rehabilitation of upper limb conditions. She has supervised the cybex isokinetic muscle testing following distal biceps repairs.



# RESEARCH HIGHER DEGREES

We are constantly investigating ways to expand our research program and are placed to have more research higher degree students in the coming years.



**Kyra Sierakowski (PhD)**  
**Co-supervisor: Dr Nicola Dean and**  
**Mr Philip Griffin, Prof Greg Bain**  
Patient-related outcome measures for hand surgery



**Arthur Turow (Masters of Surgery)**  
**Co-supervisor: Prof Ruurd Jaarsma**  
Scaphoid fractures



**Ryan Spry (Masters) and Dermot O'Rourke**  
**Supervisor: Prof Mark Taylor and**  
**A/Prof John Costi**  
Biomechanical aspects of proximal humeral plate design.

## PHD STUDENTS – HOW TO ENROL

The aim of a research higher degree program is to provide training in a manner that fosters the development of independent research and critical thinking skills. The thesis is 2 to 3.5 years full-time supervised research.

The information by the Office of Graduate Research, Flinders University

(<http://www.flinders.edu.au/graduate-research/>), will help progress successfully from admission to the submission of your thesis. It details the policies and procedures. The University offers a comprehensive induction program for new research higher degree candidates. You can discuss the opportunities with the Hand and Upper Limb Surgery Research group before submission. Contact Professor Greg Bain to discuss opportunities.

# ADVANCED STUDIES

Advanced Studies is a research theme integrated across the medical course. It provides an opportunity for MD medical students to undertake supervised research activities or postgraduate coursework. The research opportunities are in collaboration with clinical, academic and research staff.

## PROXIMAL HUMERUS FRACTURES

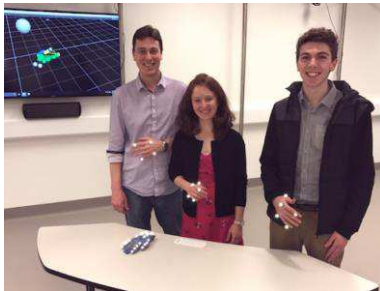
**Researcher: Owain Critchley**

**Collaborators: Dr Afsana Hasan and Dr Joideep Phadnis**

3D CT images of proximal humerus fractures.



## GAIT ANALYSIS



**Researcher: Amanda Ciozda**

**Collaborator: Mr David Hobbs**

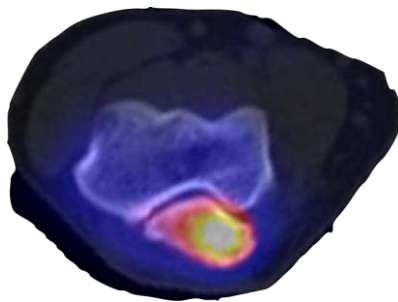
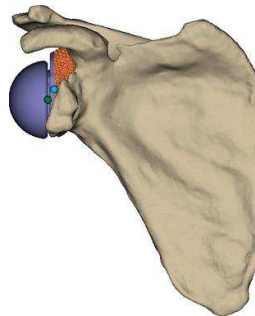
With the gait analysis technology, Amanda is assessing the motion of the normal hand and wrist and comparing it to the injured wrist. Awarded best paper of the SA Hand Society meeting 2017.

## 3D PRINTING

**Shima Zahrooni**

**Collaboration: Prof Mark Taylor**

3D Printing the bone shapes for use in clinical care. This has been valuable for design of custom-made implants and management of complex fractures.



## CLINICAL USE OF SPECT SCANS

**Rasmeet Dhaliwal**

**Collaboration: Dr Simon MacLean**

The SPECT scan combines the technology of CT Scan and bone scan to provide a precise localization of the pathology.

## 4D CT SCAN

**Researchers: Renee Carr**

**Collaborator: Prof John Slavotinek**

Dynamic real-time assessment of the musculoskeletal system with 4D computed tomography has enabled a better understanding of dynamic conditions of the wrist and elbow.



## KIENBÖCK'S DISEASE

**Luke Nuske and Minhao Hu**

**Collaboration: Dr Simon MacLean**

Kienböck's Disease: Natural History: A Systematic Review. This review is aimed to determine the natural history of avascular necrosis of the lunate.



# PUBLICATIONS

## 2016

- Redmond CL, Morris T, Otto C, Zerella T, Semmler JG, Human T, Phadnis J, Bain GI. Functional outcomes after distal biceps brachii repair: a case series. *Int J Sports Phys Ther*.
- Zumstein MA, Raniga S, Labrinidis A, Eng K, Bain GI, Moor BK. Optimal Lateral Row Anchor Positioning in Posterior-Superior Transosseous Equivalent Rotator Cuff Repair: A Micro-Computed Tomography Study. *Orthop J Sports Med*.
- Bain GI, MacLean SB, Yeo CJ, Perilli E, Lichtman DM. The Etiology and Pathogenesis of Kienböck Disease. *J Wrist Surg*.
- Corre AL, Huynh KP, Dhaliwal RS, Bain GI. Development of a Protocol for SPECT/CT in the Assessment of Wrist Disorders. *J Wrist Surg*.
- Bain GI, MacLean SB, Tse WL, Ho PC, Lichtman DM. Kienböck Disease and Arthroscopy: Assessment, Classification, and Treatment. *J Wrist Surg*.
- Bain GI, MacLean SB, Yeo CJ, Perilli E, Lichtman DM. The Etiology and Pathogenesis of Kienböck Disease. *J Wrist Surg*.
- Itoi E, Arce G, Bain GI, Diercks RL, Guttman D, Imhoff AB, Mazzocca AD, Sugaya H, Yoo YS. Shoulder Stiffness: Current Concepts and Concerns. *Arthroscopy*.
- Chang AC, Phadnis J, Eardley-Harris N, Ranawat VS, Bain GI. Inferior angle of scapula fractures: a review of literature & evidence-based treatment guidelines. *J Shoulder Elbow Surg*.
- Phadnis J, Watts AC, Bain GI. Elbow hemiarthroplasty for the management of distal humeral fractures: current technique, indications and results. *Shoulder Elbow*.
- Yeo CJ, Morse LP, Krishnan J, Bain GI. Salvage Procedures for Distal Radioulnar Joint Complications. *J Hand Surg Asian Pac Vol*.
- Lichtman DM, Pientka WF 2nd, Bain GI. Kienböck Disease: Moving Forward. *J Hand Surg Am*.
- Phadnis J, Gordon D, Krishnan J, Bain GI. Frequent isolation of *Propionibacterium acnes* from the shoulder dermis despite skin preparation and prophylactic antibiotics. *J Shoulder Elbow Surg*.
- Phadnis J, Huang T, Watts A, Krishnan J, Bain GI. Cemented or cementless humeral fixation in reverse total shoulder arthroplasty a systematic review. *Bone Joint J*.
- Phadnis J, Bain GI. Arthroscopic management of the painful total elbow arthroplasty. *Shoulder Elbow*.

## 2015

- Bain GI, Watts AC, McLean J, Lee YC, Eng K. Cable-Augmented, Quad Ligament Tenodesis Scapholunate Reconstruction. *J Wrist Surg*.
- Bain GI, Yeo CJ, Morse LP. Kienböck Disease: Recent Advances in the Basic Science, Assessment and Treatment. *Hand Surg*.
- Camarda L, Phadnis J, Clitherow HD, Bain GI. Mesh Plates for Scapula Fixation. *Techniques in Shoulder and Elbow Surgery*.
- Bain GI, McGuire DT, McGrath AM. A Simplified Lateral Hinge Approach to the Proximal Interphalangeal Joint. *Tech Hand Up Extrem Surg*.
- Bain GI, Turow A, Phadnis J. Dorsal Plating of Unstable Scaphoid Fractures and Nonunions. *Tech Hand Up Extrem Surg*.
- Bain GI, Polites N, Higgs BG, Heptinstall RJ, McGrath AM. The functional range of motion of the finger joints. *J Hand Surg Eur*.
- Bain GI, Eng K, Lee YC, McGuire D, Zumstein M. Reconstruction of Chronic Foveal TFCC Tears with an Autologous Tendon Graft. *J Wrist Surg*.
- Gieroba TJ, Bain GI, Cundy PJ. Review of the Clinical Use of Fluoroscopy in Hand Surgery. *Hand Surg*.

- Bain GI, Clitherow HD, Millar S, Fraysse F, Costi JJ, Eng K, McGuire DT, Thewlis D. The effect of lunate morphology on the 3-dimensional kinematics of the carpus. *J Hand Surg Am*.
- Clitherow HD, Bain GI. Major neurovascular complications of clavicle fracture surgery. *Shoulder Elbow*.

## 2014

- Clitherow HD, Bain GI. Association between screw prominence and vascular complications after clavicle fixation. *Int J Shoulder Surg*.
- McGuire DT, Bain GI. Management of dislocations of the elbow in the athlete. *Sports Med Arthrosc*.
- Low SC, Bain GI, Findlay DM, Eng K, Perilli E. External and internal bone micro-architecture in normal and Kienböck's lunates: a whole-bone micro-computed tomography study. *J Orthop Res*.
- Bain GI, McGuire D, Lee YC, Eng K, Zumstein M. Anatomic foveal reconstruction of the triangular fibrocartilage complex with a tendon graft. *Tech Hand Up Extrem Surg*.
- Awwad GE, Eng K, Bain GI, McGuire D, Jones CF. Medial grasping sutures significantly improve load to failure of the rotator cuff suture bridge repair. *J Shoulder Elbow Surg*.
- Fraysse F, Costi JJ, Stanley RM, Ding B, McGuire D, Eng K, Bain GI, Thewlis D. A novel method to replicate the kinematics of the carpus using a six degree-of-freedom robot. *J Biomech*.
- Morse LP, McGuire DT, Bain GI. Endoscopic ulnar nerve release and transposition. *Tech Hand Up Extrem Surg*.
- Bain GI, Sood A, Yeo CJ. RSL Fusion with Excision of Distal Scaphoid and Triquetrum: A Cadaveric Study. *J Wrist Surg*.

## 2013

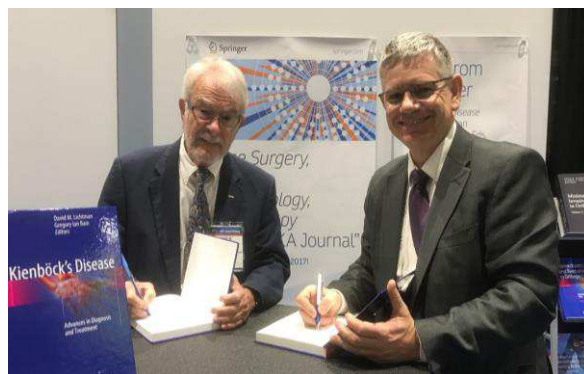
- Zumstein MA, Hasan AP, McGuire DT, Eng K, Bain GI. Distal radius attachments of the radiocarpal ligaments: an anatomical study. *J Wrist Surg*.
- Tu CG, McGuire DT, Morse LP, Bain GI. Olecranon extrabursal endoscopic bursectomy. *Tech Hand Up Extrem Surg*.
- Bain GI, Alexander JJ, Eng K, Durrant A, Zumstein MA. Ligament origins are preserved in distal radial intraarticular two-part fractures: a computed tomography-based study. *J Wrist Surg*.
- Silveira GH, Bain GI, Eng K. Reconstruction of coronoid process using costochondral graft in a case of chronic posteromedial rotatory instability of the elbow. *J Shoulder Elbow Surg*.
- Bain GI, Galley IJ, Singh C, Carter C, Eng K. Anatomic study of the superior glenoid labrum. *Clin Anat*.
- Bain GI, Watts AC, McLean J, Lee YC, Eng K. Cable-augmented, quad ligament tenodesis scapholunate reconstruction: rationale, surgical technique, and preliminary results. *Tech Hand Up Extrem Surg*.
- Bain GI, Pallapati S, Eng K. Translunate perilunate injuries-a spectrum of this uncommon injury. *J Wrist Surg*.

## 2012

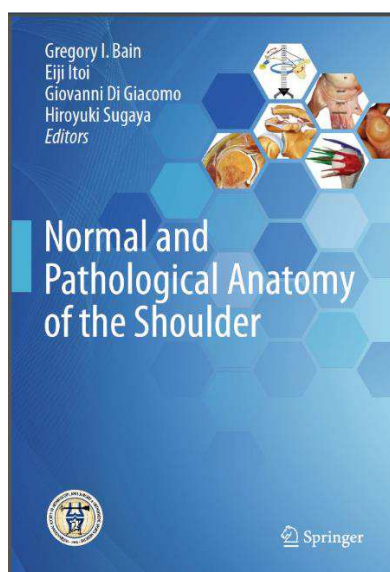
- Lee YC, Eng K, Keogh A, McLean JM, Bain GI. Repair of the acutely unstable elbow: use of tensionable anchors. *Tech Hand Up Extrem Surg*.
- McGuire DT, Bain GI. Radioscapholunate fusions. *J Wrist Surg*.
- Bain GI, McGuire DT. Decision making for partial carpal fusions. *J Wrist Surg*.
- Bain GI. Motion preserving procedures of the wrist. *J Wrist Surg*. Redmond CL, Bain GI, Laslett LL, McNeil JD. Deteriorating tactile sensation in patients with hand syndromes associated with diabetes: a two-year observational study. *J Diabetes Complications*.

# BOOKS

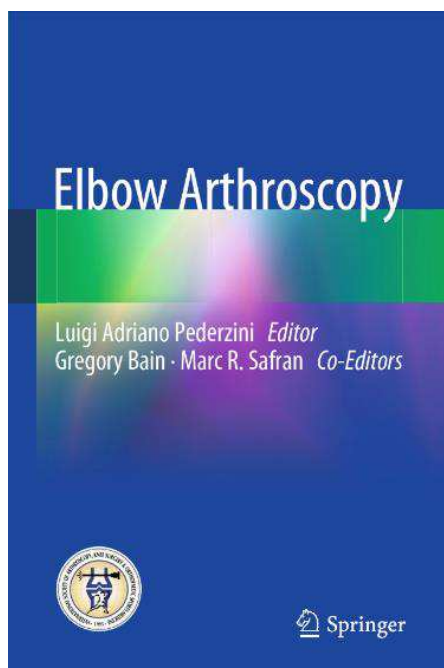
“Kienböck’s Disease: Advances in Diagnosis and Treatment” brings together the latest advances in basic science and assessment of Kienböck’s disease. Review of the natural history, relevant treatment options and presentations of a new comprehensive classification. (2016)



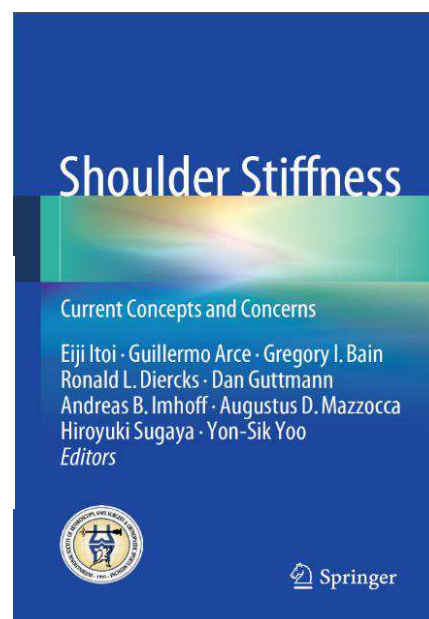
Book signing with Professor David Lichtman, American Academy of Orthopaedic Surgeons, San Diego 2017



Provides a unique understanding of the shoulder anatomy and how it is effected by the pathological processes of dysplasia, trauma and degeneration. 57,000 chapter downloads since publication. (2015)



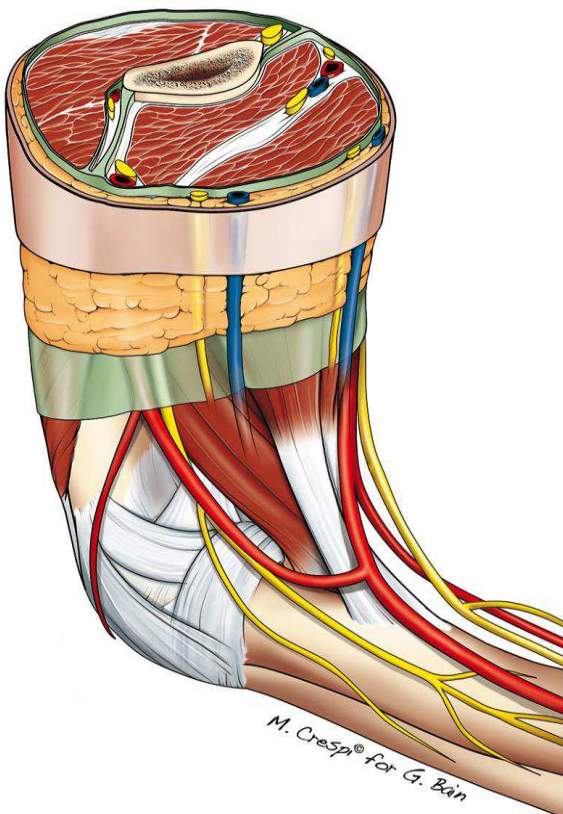
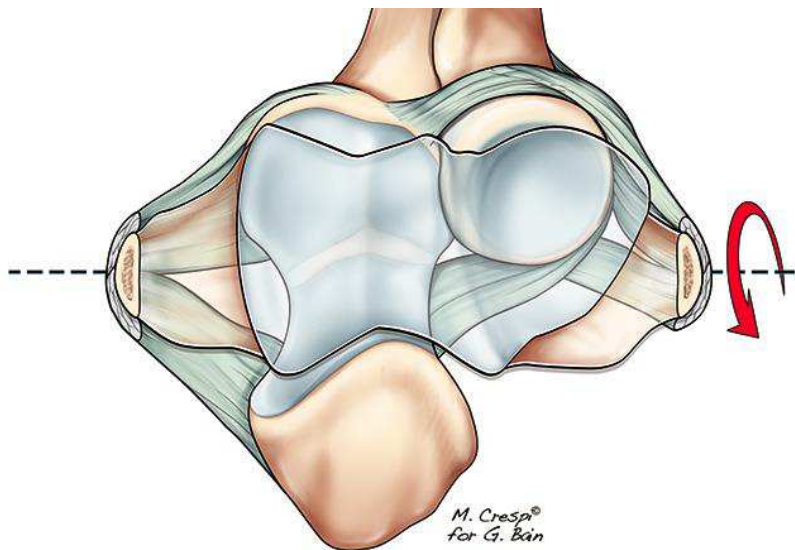
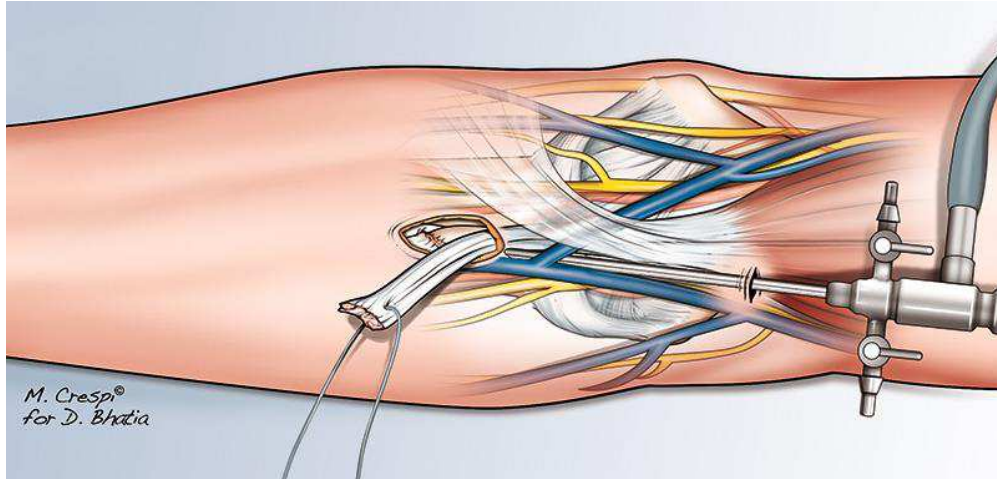
An up-to-date overview of the latest evidence regarding the etiology and treatment of shoulder stiffness and frozen shoulder. (2015)



Covers both the basic and more advanced aspects of elbow arthroscopy. It describes the techniques of arthroscopy in a range of conditions, identifies potential complications and how to avoid them. (2013)



“Techniques in Sports and Trauma Surgery of the Elbow”.  
Editors: Gregory Bain, Denise Eygendaal and Roger van Riet.  
(In Press, 2018)



# GRANTS

- ISAKOS, Elbow anatomy and biomechanics, 2016
- Innovation Partnership Seed Grant, Flinders University 2016
- ISAKOS, Normal and Pathological Anatomy of the Shoulder 2015
- Northern Communities Health Foundation, Grant for Rotator Cuff Project, 2012, 2013
- AOTAP research grant, Distal Radius Anatomy and Fractures, 2011
- Arthritis Australia Foundation – Grant to fund Dr Kevin Eng research project 2011

# AWARDS

## INTERNATIONAL

- Yang Hsueh Chi Visiting Professor, Department of Orthopaedics, Hong Kong University, 2017
- Honoured Guest Speaker, Teach The Teachers Advanced Elbow Surgical Skills Course, Mayo Clinic, USA, 2015
- HMDP Ministry of Health, Visiting Professor, Singapore, 1-2 week visit of Singapore hospitals and the Hand Society, 2015
- Honored Professor, Philadelphia Hand Symposium, USA, 2013
- Whipple Prize, Awarded by the Presidential Council of the European Wrist Arthroscopy Society (EWAS) for contributions to the advancement of knowledge in wrist arthroscopy, 2008

## NATIONAL

- **Australian Orthopaedic Association Research Award 2009**  
Awarded for producing outstanding orthopaedic research that has international recognition, and research contributing to the orthopaedic community and the community generally.
- **The Evelyn Hamilton Award 2009**  
Best scientific paper at the AOA ASM 2009, Update on fractures of the clavicle.



Presentation of AOA Research award by AOA President John Batten, Annual Scientific meeting, 2009

# CONFERENCE PRESENTATIONS

Representing Flinders upper limb orthopaedic surgery allows many colleagues to become aware of the innovative research being performed on our unit. Each year we are invited to speak at international and national conferences, including:



AO Advanced Upper Limb Course, Davos, Switzerland, 2015-16

International Federation of Societies for Surgery of the Hand.  
Buenos Aires, 2016

Federation of European Societies for Surgery of the Hand (FESSH), Spain, 2016-17

American Academy of Orthopaedic Surgeons (AAOS), Florida, USA, 2012-16

2<sup>nd</sup> Course of Arthroscopy and Arthroplasty of the Wrist, Arezzo, Italy, 2015

53<sup>rd</sup> National Congress of the Italian Society for Hand Surgery,  
Vertibo, Italy, 2015

International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine  
(ISAKOS), Lyon, France, 2013 2015

10<sup>th</sup> Congress of Asia-Pacific Federation of Societies of the Hand, Kuala Lumpur,  
2014

The European Society of Sports Traumatology, Knee Surgery and Arthroscopy  
(ESSKA) meeting, Amsterdam, Netherlands, 2014

American Society for Surgery of the Hand (ASSH), San Francisco, USA 2013-15 &  
2017



APWA President, Professor Pak Cheong Ho with  
President-elect Professor Gregory Bain of the  
Inaugural APWA meeting 2015



Dr Job Doornberg presenting



# TONSLEY CENTRE

“Australasian Hub of Musculoskeletal excellence:  
Development, Research and Teaching”.

An Australasian musculoskeletal and engineering collaboration with world class expertise in surgical implant development, bench testing, cadaveric testing, animal testing, clinical testing and teaching. An ARC Centre of Excellence.

Flinders University is co-located with Flinders Medical Centre and has a full array of university courses, including medicine, surgery, physiotherapy, nursing and exercise sciences.



## TONSLEY CENTRE – CLOVELY PARK

This new \$120 million facility is a state of the art research and development facility. It is established on the original Mitsubishi manufacturing footprint. The state government strongly supports this initiative with financial support. There are special skills in Engineering, Mathematics, Computer sciences and Nanoscience.

Examples include finite element analysis, micro CT, motion analysis, hexapod robotic motion and RSA Digital image correlation. They have development surgical simulation for endoscopic surgery and computer generated videos of surgical techniques.



## ACCREDITED TRAINING CENTRE:

The Tonsley Precinct is accredited with the following organisations:



**AO Foundation**



**ASIA PACIFIC  
WRIST ASSOCIATION**



# “FAST” – FLINDERS ADVANCED SURGICAL TRAINING CENTRE

## COURSES CONDUCTED

- Complex shoulder and elbow fractures, Orthopaedic trainees, Nov 2015
- Visiting Prof Randy Bindra, Wrist dissections, Feb 2016
- Visiting Prof Jeffrey Yao, Burnell Travelling Fellow, Wrist arthroscopy, April 2016.
- Visiting Prof Stephen Roche, Shoulder disorders and dissections, Oct 2016
- Prevention of Neurovascular Injuries in Limb Surgery, MIGA, Nov 2016
- Wright Medical Elbow Trauma and Arthroplasty Course, Aug 2017
- Motec Wrist Arthroplasty Course, June 2017
- APWA Cadaveric Wrist Course, Oct 2017
- APWA travelling fellows, Oct 2017



Professor Greg Bain demonstrating the Anatomy table” to Prof Deepak Bhatia, 2016

# HAND AND UPPER LIMB RESEARCH FUND

## DONATIONS

Please consider donating to the Hand and Upper Limb Research Fund, Flinders University. Your gift will support research into the treatment of hand and upper limb conditions, which will help us achieve better patient outcomes.

**Donations over \$2 are tax-deductible**

**100%** is allocated to research

**No administration fees**

**How we may use your donation**

**\$1000**

Researcher to attend and present at a conference

**\$1000 - \$2000**

Educational materials to support a PhD student

**\$2000 - \$5000**

Laptop for a researcher

**\$10,000**

Fund a small research project

**\$60,000**

Employ a researcher for 1 year

**\$250,000**

Fund a research engineer

**\$500,000**

Surgical simulator for surgical training

**\$6,000,000**

Professor (Chair) in Hand and Upper Limb Research



### Private Donations

Private donations may be made to the

#### Hand and Upper Limb Research Fund

Care of "Karmel Endowment Fund"

Account number 01.003.41710

Alumni and Development Office

Flinders University

REPLY PAID 2100, Adelaide, South Australia, 5001

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F + 61 8 8201 3027

E [giving@flinders.edu.au](mailto:giving@flinders.edu.au)

### Bequeath – gift from your will

A Bequeath is a donation from your estate.

You can direct that your estate donate a fixed amount or a percentage of your estate to the Hand and Upper Limb Research Fund. For more information, contact

Alumni and Development, Flinders University.

+61 8 8201 7571 [giving@flinders.edu.au](mailto:giving@flinders.edu.au)

### Commercial Donations

Commercial funds can be allocated to specific projects, topics or prostheses.

Commercial Hand and Upper Limb research donations should be directed to either

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