

### Kaushik Hazratwala, MBBS, FRACS Ortho

#### 0413 453 265 / drkosh@qllc.com.au / Linkedin profile

### Summary

Highly experienced Orthopaedic Surgeon, specializing in lower limb, arthroplasty and research into musculoskeletal conditions. Leader in field of robotic and assistive technology surgical software and other technologies in orthopaedic surgery. Patient-centric focus on improving health outcomes at all tiers of health care. Commitment to sharing teaching insights through E-learning with colleagues, students and patients. Faculty member and advisory team member for Robotics Innovations for Industry leaders, DePuy Synthes. Director of Westate Hospital development and not-for-profit research charity, Orthopaedic Research Institute of Queensland (ORIQL).

### **Highlights**

- >15 years of surgical experience in arthroplasty, elective sports medicine and trauma, and mentoring Fellows, Registrars and Medical Students,
- Extensive experience in computer assisted surgical technique and patient specific instrumentation,
- Proficient in other medical software for diagnostics and delivery of episode of care delivery patient management tools
- Excellent English language skills for writing and presentation, allows for effective communication from patients, to students and surgical peers,
- Interest in the management of health care for patients, Industry partners and Health Services from a surgeon and Executive Director level
- Qualified surgeon, knowledgeable on ethics and laws pertaining to medicine, surgery and research.
- Dedicated informative media channels with an education-centric focus: <u>YouTube</u>, <u>LinkedIn</u>, <u>VuMedi</u>, <u>Instagram</u>, <u>Facebook</u> and <u>QLLC Website</u>.

### **Current Appointments**

Visiting Medical Officer – Orthopaedic Surgeon

Mater Health Services North Queensland

**2009 – Present** 

Townsville Hospital Health Service

2009 – Present

St Andrews Hospital Brisbane	
	2019 - Present
Director, Orthopaedic Research Institute of Queensland	2011 – Present
Adjunct Senior Lecturer, James Cook University Student supervisor Honors, Surgical Anatomy Course Instructor Examiner and Interview panel for Medical Students	2015 – Present
Director, Westate Private Hospital Development	2016 – Present
JNJ Institute Faculty Member, DePuy Synthes Asia-Pacific	2018 - Present
Advisory Committee Robotics Innovation in Surgery For DePuy, 360 Knee & Hip, Teka Orthopaedics	2018 - Present
Community Medical Appointment	ts
Pacific Island Orthopaedic Association (PIOA)  Provide surgical and trauma orthopaedic training PNG	2019 - Present
Visiting Medical Officer - Fiji and surround Islands	2014 - Present
Orthopaedic Qualifications & Train	ing
FRACS Part II	2006
FRACS Part II OSCA FRACS	2006 2000
OSCA FRACS	2000
OSCA FRACS FRAC Part I	2000
OSCA FRACS FRAC Part I FRACS EMST Course Certified	2000 1998 1998
OSCA FRACS FRAC Part I FRACS EMST Course Certified Australasian society of Emergency Medicine, ELS	2000 1998 1998 1997
OSCA FRACS FRAC Part I FRACS EMST Course Certified Australasian society of Emergency Medicine, ELS MBBS University of New South Wales, Sydney	2000 1998 1998 1997 1995

## **Advanced Surgical Training in Orthopaedics**

Corporate Governance Training

Asia Pacific Knee Master Symposium, DePuy Synthes, Japan	2019
3 <sup>rd</sup> Global User Group Meeting on Orthopedic Navigation, <i>Munich</i>	2018
RACS Critical Literature Evaluation and Research Course	2015
LIMA Hip Expert Course Revision, Italy	
ZIMMER Knee Masterclass, Continuum of Care, Sydney	2014
RACS, Writing Medicolegal Reports Workshop, Sydney	
QASM (QLD Audit of Surgical Mortality)	2013
AOA/RACS/The Med Law Association of, Gold Coast	2013
LIMA Trends, Challenges and Future in THR, Sydney	
MIPS, Dealing with Difficult Patients Workshop, Australia	2012
ZIMMER, Kinematix Advances in Arthroplasty, Cairns	2011

## **Current Membership of Societies**

American Orthopaedic Foot and Ankle Society (AOFAS)

International Society of Arthroscopy, Knee Surgery and Orthopaedic Surgery (ISAKOS)

Royal Australasian College of Surgeons (RACS)

Australian Orthopaedic Association (AOA)

### **Previous Appointments**

Director of Orthopaedics, Townsville Hospital Health Service	
Orthopaedic Registrar:	
Greenslopes Private Hospital, Brisbane	2006
Mater Public Hospital, Brisbane	2005
PA Hospital, Brisbane	2004
Queen Elizabeth II Hospital, Brisbane	
Townsville General Hospital, Townsville	2003
Liverpool Hospital, Sydney	2002

Wagga Wagga Base Hospital, Wagga Wagga	2001
St Vincent's Hospital, Sydney	
St George Hospital, Sydney	2000
Albury Base Hospital, Albury	
Royal Darwin Hospital, Darwin	1999

**Emergency Medicine Registrar:** 

Wollongong Hospital, Wollongong 1997 - 1999

### **Major Committee Assignments (Past & Present)**

Teaching & Training accredited Orthopaedic Registrars	2003 - Present
Townsville Hospital Health Service	
Mater Health Service North Queensland Ltd	
Honors Student Supervisor, JCU MBBS Students	2017 - Present
Medical Interviews, James Cook University (JCU), Townsville	2014 - Present
JCU Medical Student Supervisor (4 <sup>th</sup> & 6 <sup>th</sup> year)	2014 - Present
RACS ASSET Instructor	2009
Chairperson, Grand Rounds JCU MBBS Students	2015

#### **Published Research**

#### The CNS theory of osteoarthritis: Opportunities beyond the joint.

Morris JL, Letson HL, Gillman R, Hazratwala K, Wilkinson M, McEwen P, Dobson GP. Semin Arthritis Rheum. 2019 Mar 16. pii: S0049-0172(19)30012-5. doi: 10.1016/j.semarthrit.2019.03.008.

Absence of cytotoxic and inflammatory effects following in vitro exposure of chondrogenically-differentiated human mesenchymal stem cells to adenosine, lidocaine and  $Mg_{2+}$  solution.

McCutchan A, Dobson GP, Stewart N, Letson HL, Grant AL, Jovanovic IA, Hazratwala K, Wilkinson M, McEwen P, Morris J.

J Exp Orthop. 2019 Apr 15;6(1):16. doi: 10.1186/s40634-019-0185-5.

## Risk factors associated with cardiac complication after total joint arthroplasty of the hip and knee: a systematic review.

Elsiwy Y, Jovanovic I, Doma K, Hazratwala K, Letson H.

J Orthop Surg Res. 2019 Jan 11;14(1):15. doi: 10.1186/s13018-018-1058-9.

## <u>Tranexamic acid</u> is <u>associated</u> with <u>selective increase</u> in inflammatory markers following total knee arthroplasty (TKA): a pilot study.

Grant AL, Letson HL, Morris JL, McEwen P, Hazratwala K, Wilkinson M, Dobson GP.

J Orthop Surg Res. 2018 Jun 18;13(1):149. doi: 10.1186/s13018-018-0855-5.

## <u>Evaluation</u> of <u>Bacteriophage</u> Anti-Biofilm Activity for Potential Control of <u>Orthopedic Implant-Related</u> Infections Caused by Staphylococcus aureus.

Morris J, Kelly N, Elliott L, Grant A, Wilkinson M, Hazratwala K, McEwen P.

Surg Infect (Larchmt). 2019 Jan;20(1):16-24. doi: 10.1089/sur.2018.135. Epub 2018 Sep 12.

#### Use of regional administration of prophylactic antibiotics in total knee arthroplasty.

Symonds T, Parkinson B, Hazratwala K, McEwen P, Wilkinson M, Grant A.

ANZ J Surg. 2018 Sep;88(9):848-853. doi: 10.1111/ans.14816. Epub 2018 Aug 27. Review

## <u>Early results</u> of <u>medial opening wedge high tibial osteotomy</u> using an intraosseous implant with accelerated rehabilitation.

Morris J, Grant A, Kulkarni R, Doma K, Harris A, Hazratwala K.

Eur J Orthop Surg Traumatol. 2019 Jan;29(1):147-156. doi: 10.1007/s00590-018-2280-1. Epub 2018 Aug 1.

#### **Defining** the **osteoarthritis patient**: back to the future.

Dobson GP, Letson HL, Grant A, McEwen P, Hazratwala K, Wilkinson M, Morris JL.

**Osteoarthritis** Cartilage. 2018 Aug;26(8):1003-1007. doi: 10.1016/j.joca.2018.04.018. Epub 2018 May 25. Review.

#### <u>Letter</u> to the <u>Editor</u>: <u>2017 Chitranjan S. Ranawat</u> Award: Does Computer Navigation in Knee Arthroplasty <u>Improve Functional Outcomes in Young Patients?</u> A Randomized Study.

Hazratwala K.

Clin Orthop Relat Res. 2018 Jun;476(6):1362-1363. doi: 10.1007/s11999.0000000000000305.

#### The quadriceps active ratio: a dynamic MRI-based assessment of patellar height.

Barroso Rosa S, Bahho Z, Doma K, Hazratwala K, McEwen P, Manoharan V, Matthews B, Wilkinson M. Eur J Orthop Surg Traumatol. 2018 Aug;28(6):1165-1174. doi: 10.1007/s00590-018-2170-6. Epub 2018 Mar 15. Erratum in: <a href="Eur J Orthop Surg Traumatol">Eur J Orthop Surg Traumatol</a>. 2018 Mar 31;:.

#### Comminuted Patella Fracture in Elderly Patients: A Systematic Review and Case Report.

Matthews B, Hazratwala K, Barroso-Rosa S.

Geriatr Orthop Surg Rehabil. 2017 Sep;8(3):135-144. doi: 10.1177/2151458517710517. Epub 2017 Jul 18.

## <u>Determination</u> of the <u>Accuracy</u> of <u>Navigated Kinematic</u> Unicompartmental Knee Arthroplasty: A 2-Year Follow-Up.

Grant AL, Doma KD, Hazratwala K.

J Arthroplasty. 2017 May;32(5):1443-1452. doi: 10.1016/j.arth.2016.11.036. Epub 2016 Nov 29.

# Vivo Arthroscopic Temperatures: A Comparison Between 2 Types of Radiofrequency Ablation Systems in Arthroscopic Anterior Cruciate Ligament Reconstruction-A Randomized Controlled Trial.

Matthews B, Wilkinson M, McEwen P, Hazratwala K, Doma K, Manoharan V, Bahho Z, McEwen S. Arthroscopy. 2017 Jan;33(1):165-172. doi: 10.1016/j.arthro.2016.05.026. Epub 2016 Jul 16.

## <u>Closed Incision Negative Pressure Wound Therapy vs Conventional Dry Dressings After Primary Knee</u> <u>Arthroplasty: A Randomized Controlled Study.</u>

Manoharan V, Grant AL, Harris AC, Hazratwala K, Wilkinson MP, McEwen PJ.

J Arthroplasty. 2016 Nov;31(11):2487-2494. doi: 10.1016/j.arth.2016.04.016. Epub 2016 Apr 28.

#### Total knee arthroplasty in patients with extra-articular deformity.

Hazratwala K, Matthews B, Wilkinson M, Barroso-Rosa S.

Arthroplast Today. 2016 Jan 12;2(1):26-36. doi: 10.1016/j.artd.2015.11.002. eCollection 2016 Mar.

## <u>Accuracy</u> of <u>MRI diagnosis</u> of <u>internal derangement</u> of <u>the knee</u> in a non-specialized tertiary level referral teaching hospital.

Challen J, Tang Y, Hazratwala K, Stuckey S.

Australas Radiol. 2007 Oct;51(5):426-31.

## Retrograde nailing versus fixed-angle blade plating for supracondylar femoral fractures: a randomized controlled trial.

Hartin NL, Harris I, Hazratwala K.

ANZ J Surg. 2006 May;76(5):290-4.

## A radiographic investigation to determine the safety of suture anchor systems for pediatric modified Broström ankle ligament reconstruction.

Hazratwala K, Best A, Kopplin M, Giza E, Sullivan M.

Am J Sports Med. 2005 Mar;33(3):435-8.

Experimental model of periprosthetic infection of the knee caused by Staphylococcus aureus using biomaterials representative of modern TKA. Morris, JL. Letson, HL. Grant, AL. Wilkinson, MP. Hazratwala, K. McEwen, P. (Manuscript under preparation)

One-year follow-up of a case series using the iBalance medial opening wedge HTO system and accelerated rehabilitation program. Hazratwala, K. (Manuscript under preparation)

#### **Recent presentations**

Robotics Solutions voice of Customer Meeting, DePuy Synthes, JNJ; Exploring Robotic Solutions for Total Knee Replacement. *Invited Faculty by Johnson and Johnson, advisory role to the Global Knee Marketing team for DePuy Synthes. Sydney, May 2019* 

BIGFOOT, Foot and Ankle Surgery Symposium; *Hamstring Graft Augmented Bostrom Gould Lateral Ankle Reconstruction. Sydney, May 2019* 

Total knee arthroplasty in patients with extra-articular deformity – 'SEROD' 2018. *Presented by Barrossa-Rosa, S on behalf of Hazratwala, K.* 

The role of Computer Navigation in Orthopaedic Surgery: demonstrating the Alternate Alignment Knee Replacement Technique with BrainLab Knee 3 Software and ATTUNE KNEE. *Johnson and Johnson DePuy-Synthes. Sydney 2018.* 

3<sup>rd</sup> Global User Group Meeting on Orthopaedic Navigation. *Munich 2018*.

Intraoperative X-Ray Alignment Grid for Reduction of Tibial Fractures.

Dr Kaushik Hazratwala, Dr Ian Harris, St George Hospital, Sydney, (Poster)

### **Funding awards**

Industry Partners			
Company	Date	Contribution	Amount
5	2012 – perpetual	Research Fellowship Funding – proposed use for Research Fellowship	\$80 000
Device Technologies	2011 – perpetual	Research Salary	\$80 000
DePuy Synthes	2018 – 2020	Surgical Fellowship Funding -	\$90 000
Research Grants			
Townsville Hospital Private Practice Fund	2012	The effect of hamstring stretching on Knee Extension Angle, gait characteristics and fixed flexion deformity in the arthritic knee before and after total knee arthroplasty: The effect of hamstring stretches on the knee extension angle and terminal joint range of motion has been well studied using a variety of stretching techniques including passive stretching, active stretching and proprioceptive neuromuscular facilitation (PNF).	\$24 000

KCI Medical	2015	Wound Dressing Study: The purpose of this study was to assess the negative effect of negative pressure wound therapy on the Quality of Life, wound complications and cost following primary knee arthroplasty.	\$20 000
Townsville Hospital Private Practice Fund	2015	In Vitro Chondrocyte Project: ALM has been shown to have anti- inflammatory properties at lower concentrations and therefore we suspect will have chondroprotective properties. This proposal allows observation of the effect of ALM on Chondrocytes in a lab setting prior to human testing. Lignocaine and Magnesium individually have been utilised in intra-articular use in previous studies.	\$14 184
SERTA (Previous THHS Private Practice)	2016	Bacteriophage Project: Phage therapy offers an alternate strategy for the management of PJI caused by biofilm- producing bacteria such as methicillin-resistant S. aureus (MRSA), particularly where there is limited effective antibiotics available. This grant was to establish an infection model.	\$10 000
SERTA	2016	Navigated Medial Opening Wedge Osteotomy vs Closed Wedge Osteotomy: Funding awarded; study could not commence due to Gait Laboratory malfunction. EMR damaged.	\$24 000
James Cook University Large Partnership Grant	2016	Bacteriophage therapy in implant-related  infections: The outcomes for this project aimed to establish a clinical database of patient and surgery related factors associated with total knee arthroplastics performed across 3 orthopaedic practices in Townsville since 2011 and the establishment of a library of S. aureus nasal carriage strains matched to the patient database (from May, 2016); this provides an invaluable tool for future studies. Funding contributed to establishing the animal model of knee implant surgery using clinically-relevant orthopaedic materials has been developed, paving the way for a pre-clinical model of PJI.	\$47 890
SERTA	2017	Arthrofibrosis Study: The research will investigate the effectiveness of a novel front-line drug therapy ALM (Adenosine, Lidocaine and Magnesium) to attenuate the inflammatory response and subsequently improve post operative outcomes via mechanisms associated with bleeding and inflammation, in a rat model simulating knee arthrofibrosis.	\$19 800
Australian Association of Orthopaedics	2018	Bacteriophage Project: Funding awarded will support additional pre- clinical research and translation (phase IV, human trial) of this project	\$20 000
Australian Associated of Orthopaedics	2018	Arthrofibrosis Project: In addition to developing an animal model, the project will also investigate translational models.	\$40 000

## Other Interests/Achievements

Golf, play off a handicap of 3	
Cairns 70.3 Half Ironman Finisher	2013
Bronze Medal, Arafura Games Darwin	1999
Fiji National Davis Cup Team	1994
Silver Medal, Intervarsity Games Brisbane Lawn Tennis	1993

### **UNSW Singles Tennis Championship**

### Bronze Medal, South Pacific Games, Vanuatu

#### Referees

Dr Peter McEwen, Orthopaedic Surgeon

Phone: 07 4433 1111 (THHS), 07 4799 4788 (Mater Hospital)

Dr Matthew Wilkinson, Orthopaedic Surgeon

Phone: 07 4433 1111 (THHS), 07 4727 4111 (Mater Hospital)