University of Calgary

Faculty of Medicine

**CURRICULUM VITAE FOR KELLY D JOHNSTON MD, FRCSC**

I. **BIOGRAPHICAL DATA**

Name: Kelly Dean Johnston

D.O.B.: October 23, 1975

Citizenship: Canadian

Address : Suite 335, 401-9th Ave SW

Calgary, AB T2P 3C5

Telephone: 403-265-4885

Fax: 403-221-4387

Present rank: Clinical Assistant Professor

Department: Surgery

Faculty: Medicine

Institution: University of Calgary

II. **ACADEMIC RECORD**

Final degree: Doctor of Medicine (Honours)

Date completed: June 2001

Institution: University of Alberta, Edmonton, Alberta, Canada

1. Undergraduate

BSc (Honours) Biochemistry

1993-1997

University of Calgary, Calgary, AB, Canada

ii. Special Professional

Doctor of Medicine (Honours)

1997-2001

University of Alberta, Edmonton, AB, Canada

iii. Graduate & Post-doctoral:

General Surgery Residency, University of Calgary

2001-2002

Orthopaedic Surgery Residency, University of Calgary

2002-2006

Adult Joint Reconstruction & Trauma Fellowship, University of Auckland,

Auckland, New Zealand

Middlemore Hospital

January 1, 2007-June 30, 2007

Adult Reconstruction and Hip Joint Preservation Fellowship, University of

California, San Diego

Orthopaedic Medical Group of San Diego, Sharp Memorial Hospital

2007-2008

iv. Licensure and boards

United States Medical Licensing Examination, USMLE Parts I to III

1999, 2001, 2003

Medical Council of Canada Licensing Exam (Part 1), 2001

Medical Council of Canada Licensing Exam (Part 2), 2002

Licentiate of the Medical Council of Canada #92396, 2002

RCPSC Principles of Surgery Examination, 2003

Specialist Certification in Orthopaedic Surgery, Royal College of

Physicians & Surgeons of Canada (FRCSC), 2006

College of Physicians & Surgeons of Alberta License # 014459, 2006-18

College of Physicians & Surgeons of BC License # 25654 (2006),

# 51802, 2017-present

Medical Council of New Zealand # 43451, 2007

The Medical Board of California # A 101851, 2007-2008

Tri-Council Policy Statement: Ethical Conduct for Research

Involving Humans (TCPS 2), 2012

Collaborative Institutional Training Initiative (CITI), Good Clinical Practice (GCP), 2012

**III**. **AWARDS AND DISTINCTIONS**

Governor General of Canada Bronze Academic Medal, 1993

Graduated from high school with highest academic ranking.

University of Calgary Chancellor’s Club Scholarship Recipient, 1993-1997

Four year, full tuition academic scholarship.

Canada Scholarship in Science & Engineering, 1993

Undergraduate academic tuition scholarship.

George I. Drummond Memorial Award in Biochemistry, 1997

Awarded for academic excellence.

Chemical Industry of Canada Merit Award, 1997

Awarded at completion of B.Sc. for academic excellence in biochemistry.

Alberta Heritage Foundation Medical Research Scholarship, 1997

Summer biochemistry research scholarship.

The Burroughs Wellcome Fund Student Research Award, 1998

Medical student summer research project

Nat Christie Foundation Scholarship, 1998

Medical school partial-tuition scholarship.

Alpha Omega Alpha Honour Medical Society Membership, 2000

Reviewer for Journal of Bone & Joint Surgery, 2017

Recognized for high quality review (top 15% of all reviews)

Honourable Mention, Faculty Teaching Award for Surgery Clerkship, 2019

Cumming School of Medicine, University of Calgary

**IV. ACADEMIC APPOINTMENTS**

Clinical Assistant Professor, University of Calgary, Faculty of Medicine, Department of

Surgery, Orthopaedic Section, 2019-present

Clinical Lecturer, University of Calgary, Faculty of Medicine, Department of Surgery,

Orthopaedic Section, 2008-2019

Research Manager, Division of Joint Reconstruction, Orthopaedic Section, University of

Calgary, 2012-2014

Head, Division of Hip & Knee Joint Reconstruction, Orthopaedic Section, University of

Calgary, 2014-present

# V. EDUCATIONAL ACTIVITIES

(major involvements in course and curriculum organizations, teaching and administration)

i. Undergraduate

Preceptor, Orthopaedic Surgery Clinical Clerkship Elective/Selective,

University of Calgary, 2008-present

Preceptor, Small group sessions and Clinical Correlations, Course 2,

Medical Student Year 1, University of Calgary, 2008-present

Preceptor Medicine 440, Applied Evidence Based Medicine, Faculty of

Medicine, University of Calgary, 2012, 2015

OSCE Examiner, MSK Course 2, Medical Student year 1, University of

Calgary, Faculty of Medicine, 2013, 2015

ii. Graduate

Preceptor, Hip & Knee Arthroplasty PGY4 Rotation, Orthopaedic Surgery

Residency Program, University of Calgary, 2010-present

Orthopaedic Examiner, Resident Oral Exams, Orthopaedic Surgery

Residency Program, University of Calgary, 2008-2022

iii. Postgraduate

Preceptor, Hip & Knee Reconstruction/Hip Joint Preservation Surgery,

Orthopaedic Surgery Reconstruction Fellowship Program, University of

Calgary, 2012-present

PhD Supervisory Committee, Mr. Tomasz Bugajski PhD. McCaig

Institute for Bone & Joint Health, University of Calgary, 2017-2021

Post-doctoral research co-supervisor, Dr. Viviane Frasson - Fellow, McCaig

Institute for Bone & Joint Health, Human Performance Lab, University of

Calgary, 2018-2019

iv. Continuing medical education

Royal College of Physicians and Surgeons of Canada

Maintenance of Certification Program

5-year cycle: Jan 1, 2019-Dec 31, 2024

**VI. ADMINISTRATIVE RESPONSIBILITIES**

i. Departmental

Alberta Health Services Provincial Arthroplasty Implant RFP Committee,

2012-2014

Research Manager, Division of Hip & Knee Joint Reconstruction, Orthopaedic Section, University of Calgary, 2012-2014

Head, Division of Hip & Knee Joint Reconstruction, Orthopaedic Section,

University of Calgary, 2014-present

Co-chair, Central Zone Hip & Knee Governance Committee, Alberta Health

Services, 2016-present

Chair, Alberta Health Services Provincial Arthroplasty Implant RFP

Committee, 2017-present

Alberta Surgical Initiative, Specialty Access Bundle, Calgary Zone Working

Group Committee, 2021-present

ii. Faculty

iii. University

iv. Hospital

Day Surgery total hip and knee replacement committee, 2019-present

Physician Champion, Rockyview General Hospital, Provincial Hip Fracture

Care Pathway, 2012-2016

Orthopaedic Trauma Implant Committee, Rockyview General Hospital

Representative, 2013-2014

**VII. PROFESSIONAL ACTIVITIES**

i. Membership in professional and learned societies.

International Hip Preservation Society

International Hip Dysplasia Institute

Canadian Orthopaedic Association

Canadian Arthroplasty Society

Canadian Medical Association

Canadian Medical Protective Association

Alberta Medical Association

College of Physicians & Surgeons of Alberta

College of Physicians & Surgeons of BC

ii. Professional service

- grant panels

- grant review

COREF Grant Application Reviewer, Research Portfolio, Section of

Orthopaedics, Department of Surgery, Cumming School of

Medicine, University of Calgary, 2017, 2019

- journal reviews

Reviewer, Journal of Bone & Joint Surgery, 2017-present

Reviewer, SICOT Journal, 2018-present

Reviewer, Canadian Journal of Surgery, 2019-present

- editorships

- national and international committee

Canadian Arthroplasty Society, Member

Scientific steering committee, Bilateral staged vs simultaneous

TKR Multicenter Randomized Controlled Trial, Canadian

Arthroplasty Society

Canadian Arthroplasty Society, Nomination Committee

- government agencies

- other

Member of Board of Directors, Alberta Hip and Knee Clinic Calgary, 2012-present

Conflict Resolution (Adjudication Committee)

FIRST Trial, Femoroacetabular Impingement Randomised Controlled Trial

A Multi-Centre Randomized Controlled Trial Comparing Arthroscopic Lavage and Arthroscopic Osteochondroplasty on Patient Important Outcomes and Quality of Life in the Treatment of Young Adult (18-50) Femoroacetabular Impingement

DEfining parameters for surgical correction and outcomes for Femoroacetabular ImpiNgEment through consensus (DEFINE)

Committee Member

Consultant for Stryker Sports Medicine 2020-present

**VIII. RESEARCH SUPPORT**

A Novel Model of Femoroacetabular Impingement: assessing the role of femoral version and pelvic tilt in the seated and standing positions.

R Ng, B Edwards, **K Johnston**

McCaig Institute/Section of Orthopaedics Clinician-Scientist Collaboration Seed Grant $10 000

Does Direct Anterior approach Total Hip Replacement result in more

accurate implant placement than Posterior Approach?

**K Johnston**, J Powell, R Sharma, A Parkar, Y Pauchaud

McCaig Institute/Section of Orthopaedics Faculty Seed Grant $10 000

COREF 2018 $5000

Evaluation of the Diagnostic Accuracy of the Passive Flexion External Rotation (PFER) Test for Femoro-Acetabular Impingement Syndrome

N Mohtadi, D Lindsay, **K Johnston**, A Rezansoff

McCaig Institute/Section of Orthopaedics Faculty Seed Grant $10 000

Physical Impairments Due to Femoral Version Abnormalities in Patients with Hip Pain.

**Kelly Johnston**, Viviane Frasson, Bruno Baroni, Marco Aurelio Vaz,

Walter Herzog

Internally funded

Assessment of femoral version using biplanar radiography in patients

with femoroacetabular impingement. 2018-present

Cinats D, Fruson L, Parkar A, **Johnston K**

COREF $5000

Multicenter Randomized Controlled Trial of Staged vs Simultaneous

Bilateral Knee Arthroplasty, 2018-present

Co-Investigator and member of Scientific steering committee

Canadian Arthroplasty Society Study

CIHR Funding

MRI assessment of short external rotator release post total hip arthroplasty with direct anterior approach.

Sharma R, **Johnston K**, Salat P, Walker R, Mahdavi S

Manuscript being prepared.

Internally funded by Fellowship Account, Division of Hip & Knee

Reconstruction, University of Calgary

Finite Element Modelling of Hip Resurfacing Arthroplasty with varying Femoral Neck Version

Taneja A, Naserkhaki S, El-Rich M, Adeeb S, Powell J, **Johnston K**

Published

Internally funded by Fellowship Account, Division of Hip & Knee

Reconstruction, University of Calgary. 2017-2021

Femoral De-rotational Osteotomy for Hip Pain Caused by Femoral Retroversion in Young Adults.

Mastel MS, El-Bakoury A, Parkar A, Sharma R, **Johnston K.**

Published

Internally funded by Fellowship Account, Division of Hip & Knee Reconstruction, University of Calgary, 2017-2021.

Unicondylar Knee Arthroplasty vs TKA in patients with Anteromedial OA of

the Knee. Randomized Controlled Trial

**Johnston K**, Korley R, Abelseth G, Werle J, Mahdavi S, Leighton J

COREF $5000, Internally funded by Fellowship Account, Division of Hip & Knee Reconstruction, University of Calgary, 2015-present

## IX INVITED ADDRESSES

Dr. Rene Lafreniere Alumni Lecture**,** 2009

Department of Surgery, University of Calgary

Current Concepts in Adult Hip Disease

Glen Edwards Orthopaedic Seminar Day, The “Tragic Hip”, Hip

problems from Birth to Young Adulthood, Role of Osteotomies, University

of Calgary, 2009

RD Dewar Lecture, 37th Annual Paediatric Orthopaedic Townsend Day

2009, Section of Orthopaedic Surgery, University of Calgary.

The role of arthroscopy in paediatric hip conditions.

Canadian Association of Physical Medicine & Rehabilitation Annual

Meeting, Banff, AB 2009

Hip Pain in the Young Adult

1th Annual Orthopaedic Research Symposium, Calgary, AB,

Section of Orthopaedic Surgery, University of Calgary, 2009

Adjunctive Hip Arthroscopy and Periacetabular Osteotomy for the Treatment of Dysplasia of the Hip.

Common Orthopaedic Problems: Pearls & Pitfalls, University of Calgary,

2010.

Joint Preserving Hip Surgery Symposium with Professor Reinhold Ganz,

Isolated labral tear: repair or resect?

Arthroscopic Management of Hip Impingement.

University of Calgary 2010

Canadian Academy of Sport & Exercise Medicine, Update in

Osteoarthritis Care, 2011. University of Calgary.

Surgical Treatment Updates: Arthroscopy, Osteotomy, Arthroplasty

Sports Prescription post-arthroplasty

Urgent Care Course, Faculty of Medicine, CME & Professional

Development, University of Calgary 2012

Workshop on Investigating the Painful Extremity

Faculty of Medicine, CME & Professional Development, University of

Calgary 2013

Clinical Evaluation of the Hip Joint & Pain in Hip Region.

39th Annual Family Practice Review: Pearls for Practice

University of Calgary, 2014

Hip Impingement

**X PUBLICATIONS/PRESENTATIONS**

i. Peer reviewed manuscripts

Bourget-Murray J, Watt Kearns SJ, Lukenchuk J, **Johnston K**, Werle J. Birmingham Hip Resurfacing for osteoarthritis - A Canadian retrospective cohort study with a minimum ten-year follow-up. Can J Surg. 2022

In press

Bourget-Murray J, Watt Kearns SJ, Lukenchuk J, **Johnston K**, Werle J.

Comparing One-Year and Ten-Year Whole Blood Metal-Ion Results in Birmingham Hip Resurfacing. Can J Surg. 2022

In press

Mastel MS, El-Bakoury A, Parkar A, Sharma R, **Johnston KD.** Outcomes of femoral de-rotation osteotomy for treatment of femoroacetabular impingement in adults with decreased femoral anteversion. J Hip Preserv Surg. 2021 Apr 12;7(4):755-763. doi: 10.1093/jhps/hnab031. PMID: 34377518; PMCID: PMC8349582.

Fortuna R, Hart DA, Sharkey KA, Schachar RA, **Johnston K**, Reimer RA. Effect of a prebiotic supplement on knee joint function, gut microbiota, and inflammation in adults with co-morbid obesity and knee osteoarthritis: study protocol for a randomized controlled trial. Trials. 2021 Apr 7;22(1):255. doi: 10.1186/s13063-021-05212-w. PMID: 33827639; PMCID: PMC8025512.

Bourget-Murray J, Taneja A, Naserkhaki S, El-Rich M, Adeeb S, Powell J, **Johnston K**. Computational modelling of the hip resurfacing arthroplasty investigating the femoral version effect in joint biomechanics. PLoS One 2021 May 27;16(5):e0252435.

J Purnell, M Monument, **K Johnston**, N Desy

Proximal Hamstring Tendon Avulsion Resulting in Acute Posterior Thigh Compartment Syndrome: A case report.

JBJS Case Connector: April-June 2020, Volume 10, Issue 2.

MT Wong, J Bourget-Murray, **K Johnston**, N Desy

Understanding the role of total knee arthroplasty for primary treatment of tibial plateau fracture: a systematic review of the literature.

Journal of Orthopaedics and Traumatology 21(7), 2020

I. Abdulla, S. Mahdavi, H. Khong, R. Gill, J. Powell, **K. Johnston**, R. Sharma. Does BMI Affect The Rate Of Adverse Outcome In Total Hip And Knee Arthroplasty? A Retrospective Review Of A Total Joint Database. Canadian Journal of Surgery 2020:63(2):E142-E149.

Raghav Saini, James Powell, Rajrishi Sharma, Shannon Puloski, Saboura Mahdavi, Christopher Smith, **Kelly Dean Johnston**. One Stage versus 2-Stage Bilateral Total Joint Arthroplasty: A matched cohort study.

Canadian Journal of Surgery 2020;63(2):E167-E173.

Gabriel E Fabreau, Paul Bauman, Annalee L Coakley, **Kelly Johnston**, Kurt A Kennel, Jessica L Gifford, Hossein MH Sadrzadeh, Gary M Whitford, Michael P Whyte, Gregory A Kline

Skeletal fluorosis in a resettled refugee from Kakuma refugee camp.

The Lancet. Vol 393 (2019), Issue 10168, p223

Saini R, DiFrancesco LM, **Johnston K**, Khan A, Kline G

Diffuse, Fracturing Systemic Skeletal Histiocytosis of Unknown Type: a novel metabolic bone disease.

Osteoporosis International. Sept 2019; 30(9), 1893–1896.

Ashish Taneja, Ahmed El-Bakoury, Hoa Khong, Pam Railton, Rajrishi Sharma, **Kelly Dean Johnston**, Shannon Puloski, Christopher Smith,James Powell.

Association between Allogeneic Blood Transfusion and Wound Infection after Total Hip or Knee Arthroplasty: A Retrospective Case-Control Study.

Journal of Bone and Joint Infection 2019, 4(2), 99–105.

Rex EL, Werle J, Burkart BC, MacKenzie JR, **Johnston KD**, Anglin C, Shape Analysis of the Patellar Bone Surface and Cutting Plane for Knee

Replacement Surgery. Computational Math Methods Med. 2018;

2018:6490425. Epub 2018 Oct 24.

Fracture fixation in the operative management of hip fractures (FAITH): an international, multicentre, randomised controlled trial

Lancet. 2017 April 15; 389(10078): 1519–1527. (Participated as a FAITH

Study Investigator, see data supplement)

**Johnston K**, Frizzell JB

The MRI is All You Need.

Canadian Orthopaedic Association Bulletin Spring 2017: 23-24.

Mohtadi N, **Johnston K**, Gaudelli C, Chan D, Barber R, Walker R, Patel, C, MacKay E, Oddone-Paolucci E, The incidence of proximal deep vein thrombosis after elective hip arthroscopy: a prospective cohort study in low risk patients.

Journal of Hip Preservation Surgery 2016; 3(4), 295-303.

Re-evaluation of low intensity pulsed ultrasound in treatment of tibial fractures (TRUST): randomized clinical trial.

*BMJ* 2016;355:i5351 (Participated as a TRUST Study Investigator, see data supplement)

Yu HC, Al-Sheheri M, **Johnston K**, Endersby R, Baghirzada L

Anaesthesia for Hip Arthroscopy – a narrative review

Can J Anaesth. 2016 Nov;63(11):1277-90.

Hip fracture evaluation with alternatives of total hip arthroplasty versus hemiarthroplasty (HEALTH): protocol for a multicentre randomised trial

BMJ Open 2015;5:e006263. doi:10.1136/bmjopen-2014-006263

(Participated as a HEALTH Study Investigator)

A Prospective Randomized Multicenter Clinical Trial Comparing Open Reduction, Internal Fixation with Primary Subtalar Fusion in patients with severely comminuted (Sanders IV) Displaced Intra-articular Fractures of the Calcaneus.

J Orthop Trauma. 2014Oct;28(10):577-83

\*Study took over 10 years to complete. As a resident, I wrote original study protocol, successfully obtained AO North America and OTA grant, and helped create website to assist in multicenter patient recruitment. Inadvertently not recognized at publication. Lead author, Dr. R Buckley, will verify my involvement.

Gudena R, Werle J, **Johnston K,** Bilateral femoral insufficiency fractures likely related to long-term alendronate therapy. J of Osteoporosis. Vol. 2011, Article ID 810697, 4 pages, 2011

Lincoln M, **Johnston K,** Muldoon M, Santore R

Combined Arthroscopic and Modified Open Approach for Cam Femoroacetabular Impingement: A Preliminary Experience

Arthroscopy 25(4): 392-399, April 2009.

**Johnston KD**, Durand D, Hildebrand K

Chronic volar distal radioulnar joint instability: joint capsular plication to restore function.

Can J Surg 52(2):112-118, April 2009.

**Johnston KD**, Walji AH, Fox RJ, Pugh JA, Aronyk KE: Access to cerebrospinal fluid absorption sites by infusion into vascular channels of the skull diploe.

J Neurosurg 107(4):841-843, Oct 2007.

ii. Non-peer reviewed manuscripts/posters

Femoral De-Rotation Osteotomy versus Hip Arthroscopy for Management of Femoroacetabular Impingement in Adult Patients with Decreased Femoral Anteversion: A Matched Retrospective Cohort Study

A Federico, M Mastel, A Idriss, N Desy, **K Johnston**

Poster presentation, 2021 Ortho Summit - ISHA Combined Annual Meeting. Dec 12-14, 2021 Las Vegas, NV

Ludwig, T., Bourget-Murray, J., Sridharan, S., Frederick, A., Johnston, K., Edwards, B., Nicholls, F. “Establishing normative relationship of spinopelvic alignment to femoroacetabular orientation”

Podium presentation, Canadian Orthopaedic Association Virtual Meeting, 2021

Short external rotator tendon integrity during anterior approach total hip

arthroplasty-a prospective cohort MRI study

Salat P, Walker R, **Johnston K**, Sharma R

Podium presentation, Canadian Orthopaedic Association Virtual Meeting

2021.

Squeaking in BIOLOX delta Ceramic on Ceramic Primary Total Hip Replacement.

T Abdelrahman, I Lutz, S Piroozfar, J Werle, R Sharma, **K Johnston**.

Poster Presentation ,Canadian Orthopaedic Association Virtual Meeting 2020.

Assessment of Femoral Version using Biplanar Radiography

Cinats D, Fruson L, Parkar A, **Johnston K**

Poster presentation at 2019 Canadian Orthopaedic Association Annual Meeting, Montreal.

Increasing BMI in Primary and Revision Total Knee Arthroplasty; Influencing Length of Stay, Complications and Adverse Events: A Retrospective Review

Irfan Abdulla; Hoa Khong; Saboura Mahdavi; James Powell; **Kelly Johnston**; Rajrishi Sharma

Poster presentation at 2018 Canadian Orthopaedic Association Annual Meeting, Victoria, BC.

Finite Element Modelling of Hip Resurfacing Arthroplasty with varying Femoral Neck Version

Taneja A, Naserkhaki S, El-Rich M, Adeeb S, Powell J, **Johnston K**

Podium presentationat 5th Annual (2017) Canadian Arthroplasty Society Meeting, Toronto, Ontario.

Simultaneous vs Staged Bilateral Total Joint Arthroplasty: A Matched Cohort Study

Raghav Saini; Hoa Khong; Christopher Smith; Saboura Mahdavi; Shannon Puloski; James Powell; Rajrishi Sharma; **Kelly Johnston**

Podium presentation at 2017 Canadian Orthopaedic Association Annual Meeting, Ottawa, Ontario

Increasing BMI in Primary and Revision Total Hip Arthroplasty; Influencing Length of Stay, Complications and Adverse Events - A Retrospective Review

Irfan Abdulla; Hoa Khong; Saboura Mahdavi; Richdeep Gill; James Powell; **Kelly Johnston**; Rajrishi Sharma

Podium presentation at 2017 Canadian Orthopaedic Association Annual Meeting, Ottawa, Ontario

Infections After Blood Transfusion in Primary Total Joint Arthroplasty

Ashish Taneja; Hoa Khong; Rajrishi Sharma; Cristopher Smith; Pam Railton; Shannon Puloski; **Kelly Johnston**; Jim Powell

Podium presentation at 2016 Canadian Orthopaedic Association Annual Meeting, Quebec City, Quebec

Prospective Evaluation of the Incidence of Deep Vein Thrombosis After Elective Hip Arthroscopy Nicholas G.H. Mohtadi; **Kelly Johnston**; Cinzia Gaudelli; Rhamona Shellie Grace Barber; Denise S. Chan; Richard Walker; Chirag Patel; Radana Beran; Elizabeth Mackay; Elizabeth Oddone Paolucci

Podium presentation at 2015 Canadian Orthopaedic Association Annual Meeting, Vancouver, BC.

Pulmonary Embolism Incidence Correlates with Body Mass Index in Primary Elective Total Joint Arthroplasty

Leighton J, **Johnston K**

Poster presentation at 2015 Canadian Orthopaedic Association Annual Meeting, Vancouver, BC.

iii. Books, chapter

Werle J, Desy N, **Johnston K,** Goodman S, *Evaluation of the Painful*

*Total Knee Arthroplasty*, Book Chapter in Evidence Based Orthopedics

Second Edition, Editors: Bhandari M, September 2021

iv. Abstracts - published

Adjunctive Hip Arthroscopy in the Treatment of Impingement and Acetabular Dysplasia.

**Johnston K**, Lincoln M, Muldoon M, Santore R: Scientific Exhibit

Presented at the 2008 American Academy of Orthopedic Surgeons Annual Meeting, San Francisco, CA

v. Communications - unpublished