Deborah A. Marshall

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Deborah is a health economist and health services researcher leading a programme of applied research using patient preferences, patient engagement and simulation modelling methods. Dr Marshall leads the health economics, socioeconomic benefits, patient preferences and patient engagement activities for several national and international research programmes (funded by CIHR and/or Genome Canada) in precision health and patient-oriented research to develop health economic tools and approaches to evaluate outcomes: 1) **UCAN CAN-DU** (Understanding Childhood Arthritis Network Canada-Netherlands) and 2) **UCAN CURE** (Precision Decisions for Childhood Arthritis personalized medicine networks in childhood arthritis combining genomic techniques, machine learning methods and simulation modelling to predict response to treatment and its associated health outcomes and economic impact; 3) **SOLVE** Care4Rare Canada - harnessing multi-omics to deliver innovative diagnostic care for rare genetic diseases; 4) **TIGeR** (Translational Implementation of Genomics for Rare diseases), partnership with Medical Genetics and Alberta Provincial Laboratory for the clinical application of genome wide sequencing; and 5) **IMAGINE** Strategy for Patient Oriented Research (SPOR) Chronic Disease Network (Inflammation, Microbiome, and Alimentation: Gastro-Intestinal and Neuropsychiatric Effects, CIHR SPOR) on inflammatory bowel disease and the microbiome. She is a Founding Member of the Global Economics and Evaluation of Clinical Genomics Sequencing Working Group (GEECS).

Deborah is the Principal Applicant of the CIHR Health Systems Impact Fellowship National Training Program - *"Enhancing a Community of Practice for the Health System Impact Fellowship Program: Advancing Capacity for Sustainable & Patient-Centered Learning Health Systems across Canada" to create a community of practice towards achieving high-performing, patient-centered learning health systems across Canada*. In addition, she is the former chair of both the Arthur J.E. Child Chair of Rheumatology Outcomes Research; and Canada Research Chair, Health Services and Systems Research (2008 - 2018). Deborah also holds various memberships in University of Calgary and Alberta Health Services: **1)** Alberta Children's Hospital Research Institute (ACHRI) Member as well as Scientific Director of Research and Partnership Evaluation and Impact; **2)** O'Brien Institute of Public Health Member; **3)** McCaig Institute of Bone and Joint Health Member; **4)** Senior Scientist at Arthritis Research Canada.

Deborah is a founding co-investigator of the innovative Patient and Community Engagement Research (PaCER) programme at the University of Calgary which trains patients to design and conduct health research, using specific adapted methods of qualitative inquiry. She is an active member of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) as the Past President of the Board of Directors, the Chair of the Dynamic Simulation Modeling Applications in Health Care Delivery Research Task Force and as a member of the Patient Preferences Special Interest Group, the Optimization Methods Task Force and co-author of related ISPOR Task Force Reports. She has also served as a member of the Board of Directors for Health Technology Assessment International (HTAi) and is a member of the HTAi Patient Preferences Working Group. She was co-chair of the Scientific Research Committee and Board of Directors of the Arthritis Alliance of Canada (AAC), and is a member of the Scientific Advisory Committee of the Alberta PROMs & EQ-5D Research & Support Unit (APERSU).

Selected Publications (n=291 / past 5 yrs=127)

Underlined indicates student / *Italics indicates Patient Researcher)*

IN PRESS:

3. Connor-Spady BL, **Marshall DA,** Bohm E, Dunbar MJ, Loucks L, Noseworthy T. Patient acceptable symptom state (PASS): thresholds for the EQ-5D-5L and Oxford hip and knee scores for patients with total hip and knee replacement. Quality of Life Research, Nov 2022 (in press).

2. D'Silva A, Vallance JK, Nasser Y, Taylor L, Kothandaraman M, Lazarescu A, **Marshall DA.** Gastroenterologist and patient attitudes towards yoga as a therapy for irritable bowel syndrome: An application of the theory of planned behavior. Journal of Canadian Gastroenterology, Aug 2022 (in press) (https://doi.org/10.1093/jcag/gwac028)

1. Kip MMA, de Roock S, Currie G, **Marshall DA**, Grazziotin LR, Twilt M, Yeung RSM, Benseler SM, Vastert SJ, Wulffraat N, Swart JF, IJzerman MJ. Pharmacological treatment patterns in patients with juvenile idiopathic arthritis in the Netherlands: a real-world data analysis. Rheumatology, May 2022; https://doi.org/10.1093/rheumatology/keac299 (in press)

PUBLISHED:

79. Currie GR, Harris M, McClinton L, Trehan N, Van Dusen A, Shariff M, Kuzmyn T, **Marshall DA**, Transitions from pediatric to adult rheumatology care for juvenile idiopathic arthritis: a patient led qualitative study, BMC Rheumatology, Nov 2022;6(1):85

78. Kip MM, de Roock S, I van den Berg, Currie G, **Marshall DA**, Grazziotin Lago LR, Twilt M, Yeung RSM, Benseler SM, Vastert SJ, Wulffraat N, Swart JF, IJzerman MJ. Costs of hospital-associated care for patients with juvenile idiopathic arthritis in the Dutch healthcare system. Arthritis Care Res, Oct 2022;74(10):1585-1592.

77. Kennedy BL, Currie GR, Kania-Richmond A, Emery CA, MacKean G, **Marshall DA**. Factors That Patients Consider in Their Choice of Non-Surgical Management for Hip and Knee Osteoarthritis: Formative Qualitative Research for a Discrete Choice Experiment. The Patient -- Patient-Centered Outcomes Research, Sept 2022;15(5):537-550.

76. Kennedy BL, Currie GR, Kania-Richmond A, Emery CA, MacKean G, **Marshall DA**. Patient beliefs about who and what influences their hip and knee osteoarthritis symptoms and progression. Musculoskeletal Care, Sept 2022;20(3):604-615.

75. Currie GR, Pham T, Twilt M, Ijzerman MJ, Hull PM, Kip MMA, Benseler S, Hazlewood GS, Yeung R, Wulffraat N, Swart JF, Vastert SJ, **Marshall DA**. Perspectives of pediatric rheumatologists on initiating and tapering biologics in patients with Juvenile Idiopathic Arthritis: A formative qualitative study. The Patient - Patient-Centered Outcomes Research, Sept 2022;15(5):599-609

74. Hawker GA, Conner-Spady BL, Bohm E, Dunbar MJ, Jones CA, Ravi B, Noseworthy T, Woodhouse LJ, Faris P, Dick D, Powell J, Paul P, **Marshall DA**; BEST-Knee Study Team. The Relationship between Patient-Reported Readiness for Total Knee Arthroplasty and Likelihood of a Good Outcome at One Year (Revision). Arthritis Care & Research (Hoboken), Aug 2022;74(8):1374-1383.

73. Grazziotin LR, Currie G, Twilt M, IJzerman MJ, Kip MMA, Koffijber H, Bonsel G, Benseler SM, Swart JF, Vastert SJ, Wulffraat NM, Yeung RSM, Armbrust W, van den Berg M, **Marshall DA**. Factors associated with care-and health-related quality of life of caregives of children with juvenile idiopathic arthritis. Pediatric Rheumatology, July 2022;20(1):51.

72. Mirza RM, MacKean G, Shaffer SR, Sewitch MJ, Heisler CG, McLeod J, Habashi P, MacDonald KV, Barker K, Nguyen GC, **Marshall DA.** Patient experiences in the management of inflammatory bowel disease: A qualitative study. Journal of the Canadian Association of Gastroenterology, May 2022; https://doi.org/10.1093/jcag/gwac014 (in press)

71. Currie GR, Lee R, Black AM, Palacios-Derflingher L, Hagel BE, Emery CA, **Marshall DA.** An economic evaluation of disallowing body checking in 11- to 12-year-old ice hockey leagues. Sports Health, Feb 2022;14(2):293-298

70. Hazlewood G, Loyola-Sanchez A, Bykerk V, Hull PM, **Marshall DA,** Pham T, Barber CE, Barnabe C, Sirois A, Pope J, Schieir O, Richards D, Proulx L, Bartlett S. Patient and Rheumatologist Perspectives on Tapering DMARDs in Rheumatoid Arthritis: A Qualitative Study. Rheumatology (Oxford), Feb 2022;61(2):606-616.

69. Michaels-Igbokwe C, Currie G, Kennedy BL, MacDonald KV, **Marshall DA.** Methods for conducting stated preference research with children and adolscents in health: A scoping review of the application of discrete choice experiments. The Patient – Patient-Centered Outcomes Research, Nov 2021;5(11):e30495.

68. Hawker G, Conner-Spady BL, Bohm E, Dunbar MJ, Jones A, Ravi B, Noseworthy T, Faris P, Dick D, Powell J, Paul P, **Marshall DA**, BEST-Knee Study Team. Reply to Letter to the Editor – Concerns regarding p-value-based variable selection of exposure variables and confounding factors: Comment on the Article by Hawker et al. Arthritis Rheumatology, Oct 2021;73(10):1946-1947.

67. Grazziotin Lago L, Currie G, Twilt M, Ijzerman MJ, Kip MMA, Koffijberg H, Benseler SM, Swart JF, Vastert SJ, Wulffraat NM, Yeung RSM, Johnson N, Luca NJ, Miettunen PM, Schmeling H, **Marshall DA**. Evaluation of real-world healthcare resource utilization and associated costs in children with Juvenile Idiopathic Arthritis: A Canadian retrospective cohort study. Rheumatology and Therapy, Sept 2021;8(3):1303-1322.

66. Lopatina E, **Marshall DA,** LeClercq SA, Noseworthy T, Suter E, De la Rosa Jaimes C, Lauf AM, Mosher DP, Barber CE. Nurse-led care for stable patients with rheumatoid arthritis: quality of care in routine practice compared to the traditional rheumatologist-led model. Rheumatology and Therapy Journal (Open Access), Sept 2021;8(3):1263-1285.

65. Currie GR, Lee R, Palacios-Derflingher LM, Hagel B, Black A, Babul S, Mrazik M, **Marshall DA**, Emery CA. Reality Check 2: The cost-effectiveness of policy disallowing body checking in non-elite 13 -to 14-year-old ice hockey players. IJERPH, June 2021;18(12):6322.

64. King LK, Waugh EJ, Jones CA, Bohm E, Dunbar MJ, Woodhouse LJ, Noseworthy T, **Marshall DA**, Hawker GA; BEST-Knee Team. Comorbidities Do Not Limit Improvement in Pain and Physical Function After Total Knee Arthroplasty in Patients with Knee Osteoarthritis: The BEST-Knee Prospective Cohort Study. BMJ Open, June 2021;11(6):e047061.

63. Thomas M, Fraenkel L, Boonen A, Bansback N, Buchbinder R, **Marshall DA**, Proulx L, Voshaar M, Richards DP, Hiligsmann M, Guillemin F, Shea B, Tugwell P, Hazlewood G. Patient preferences to value health outcomes in Rheumatology clinical trials: Report from the OMERACT Special Interest Group, May 2021;S0049-0172(21):00099-8.

62. Barber CE, **Marshall DA,** Szefer E, Barnabe C, Shiff N, Bykerk V, Homik J, Thorne C, Ahluwalia V, Benseler S, Mosher D, Twilt M, Lacaille D. A population-based approach to reporting system-level performance measures for rheumatoid arthritis care. Arthritis Care & Research (Hoboken), May 2021;73(5):640-648.

61. Barber CE, Lacaille D, Faris P, Mosher DP, Katz S, Patel JN, Zhang S, Yee K, Barnabe C, Hazlewood G, Bykerk V, Shiff NJ, Twilt M, Burt J, Benseler S, Homik J, **Marshall DA.** Evaluating quality of care for rheumatoid arthritis for the population of Alberta using system-level performance measures. Journal of Rheumatology, April 2021:48(4):482-485.

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59. Lang R, Benham J, Atabati O, Hollis A, Tombe T, Shaffer B, Kovacs Burns K, MacKean G, Léveillé T, McCormack B, Sheikh H, Fullerton MM, Tang T, Boucher J-C, Constantinescu C, Mourali M, Manns BJ, **Marshall DA,** Hu J, Oxoby RJ. Attitudes, behaviours and barriers to public health measures for COVID-19: a survey to inform public health messaging. BMC Public Health, Open Access, April 2021;21:765.

58. Liu X, Barber, CE, Katz, S, Homik J, Bertazzon S, Patel AB, Robert J, Smith C, Mosher DP, **Marshall DA.** Geographic Variation in the Prevalence of Rheumatoid Arthritis in Alberta, Canada. ACR Open Rheumatology. March 2021;3(5):324-332 (https://doi.org/10.1002/acr2.11251)

57. Barber CE, Lacaille D, Hall M, Bohm V, Li LC, Barnabe C, Rankin J, Hazlewood G, **Marshall DA**, Macmullan P, Mosher DP, Homik J, English K, Tsu K, Then KL. Strategies for Developing and Implementing a Rheumatoid Arthritis Healthcare Quality Framework: A Thematic Analysis of Perspectives from Arthritis Stakeholders. BMJ Open. March 2021;11(3):e043759.

56. Benham JL, Lang R, Kovacs Burns K, MacKean G, Leveille T, McCormack B, Sheikh H, Fullerton MM, Tang T, Boucher J-C, Constantinescu C, Mourail M, Oxoby RJ, Manns BJ, Hu J, **Marshall DA.** Attitudes, current behaviours and barriers to public health measures that reduce COVID-19 transmission: A qualitative study to inform public health messaging. PLoS One, Feb 2021;16(2):e0246941.

55. Michaels-Igbokwe C, McInnes B, MacDonald KV, Currie GR, Omar F, Shewchuk B, Bernier FP, **Marshall DA**. (Un)standardized testing: the diagnostic odyssey of children with rare genetic disorders in Alberta, Canada. Genetics Medicine, Feb 2021;23(2):272-279.

54. Hawker G, Connor-Spady B, Bohm E, Dunbar MJ, CA Jones, Ravi B, Noseworthy T, Dick D, Powell J, Paulose P, **Marshall DA.** Patients' Preoperative Expectations of Total Knee Arthroplasty and Satisfaction with Outcomes at One Year: A Prospective Cohort Study. Arthritis and Rheumatology, Feb 2021;73(2):223-231.

53. Phillips KA, Douglas MP, Wordsworth S, Buchanan J, **Marshall DA.** Availability and funding of clinical genomic sequencing globally. BMJ Global Health, Jan 2021;6:e004415.

52. Lopatina E, **Marshall DA,** Coupal L, Le Lorier J, Choquette D. Cost-utility analysis of second-line therapy with rituximab compared to tumour necrosis factor inhibitors in rheumatoid arthritis. Current Medical Research and Opinion, Jan 2021;37(1):157-166.

51. Barber CE, Then KL, Bohm V, Hall M, **Marshall DA**, Rankin JA, Barnabe C, Hazlewood GS**,** Li LC, Mosher DP, Homik J, MacMullan P, Tsui K, English K, Lacaille D, RA Quality Measurement Delphi Panel Group. Development of a patient-centered quality measurement framework for measuring, monitoring and optimizing rheumatoid arthritis care in Canada. Journal of Rheumatology, Jan 2021;48:326-334.

50. Phillips KA, Douglas MP, **Marshall DA**. Expanding Use of Clinical Genome Sequencing and the Need for More Data on Implementation. JAMA Nov 2020;324(20):2029-2030.

49. Kip MA, de Roock S, Currie G, **Marshall DA**, Grazziotin Lago L, Twilt M. Costs of medication use among patients with juvenile idiopathic arthritis in the Dutch healthcare system. Expert Review of Pharmacoeconomics & Outcomes Research, Nov 2020; 1-53.

48. Mazzei DR, Ademola A, Abbott JH, Sajobi T, Hildebrand K, **Marshall DA**. Are Education, Exercise and Diet Interventions A Cost-Effective Treatment to Manage Hip and Knee Osteoarthritis? A Systematic Review. Osteoarthritis and Cartilage, Nov 2020; S1063 – 4584 (20) 31165-1.

47. Moayyedi P, MacQueen G (posthumous), Bernstein CN, Vanner S, Bercik P, Madsen KL, Surette MG, Rioux JD, Dieleman LA, Verdl EL, De Souza R, Otley A, Targownik l, Lavis J, **Marshall DA**, Zelinsky S, Fernandes A, on behalf of the IMAGINE Network. A protocol for a prospective observational multi-centre cohort study in Inflammatory Bowel Disease & Irritable Bowel Syndrome. BMJ Open Access, Oct 2020;10:e041733.

46. Liu X, Shahid R, Patel AB, McDonald T, Bertzzon S, Waters N, Seidel JE, **Marshall DA.** Geospatial patterns of comorbidity prevalence among people with osteoarthritis in Alberta Canada. BMC Public Health, Oct 2020;20(1):1551.

45. Mazzei DR, Ademola A, Abbott JH, Sajobi T, Hildebrand K, **Marshall DA**. Systematic review of economic evaluations investigating education, exercise and dietary weight management to manage hip and knee osteoarthritis: Protocol. Systematic Reviews, Oct 2020;9(1):299-306

44. Carr E, Ortiz M, Patel J, Barber CE, Katz S, Robert J, Mosher DP, *Teare S, Miller S*, Homik J, Dinsmore K, **Marshall DA.** Models of arthritis care: A systems-level evaluation of acceptability as a dimension of quality care. J Rheumatology. Sept 2020;47(9):1431-1439.

43. King LK, **Marshall DA**, Jones CA, Woodhouse LJ, Ravi B, Faris PD, Hawker GA; BEST-Knee Team. Are medical comorbidities contributing to the use of opioid analgesics in patients with knee osteoarthritis? Osteoarthritis Cartilage. 2020 Aug;28(8):1030-1037.

42. King LA, **Marshall DA,** Faris P, Woodhouse L, Jones CA, Noseworthy T, Bohm E, Dunbar M, Hawker GA. Use of recommended non-surgical knee osteoarthritis management in patients prior to total knee arthroplasty: A cross-sectional study. J of Rheumatology. Aug 2020; 47(8):1253-1260.

41. Grazziotin Lago L, Dada B, Jaimes CR, Cheung W, **Marshall DA**. Chromogenic and silver in situ hybridization for identification of HER 2 overexpression in breast cancer patients: a systematic review and meta-analysis. Applied Immunohistochemistry & Molecular Morphology. July 2020;28(6):411-421.

40. Grazziotin Lago L, Currie G, Kipp MMA, IJzerman MJ, Twilt M, Lee R, **Marshall DA.** Health State Utility Values in Juvenile Idiopathic Arthritis: What is the Evidence? Pharmacoeconomics. May 2020; 28:913-926.

39. **Marshall DA**, Pham T, Faris P, Chen G, O'Donnell S, Barber CE, LeClercq S, Katz S, Homik J, Patel JN, Lopatina E, Roberts J, Mosher D. Determination of Rheumatoid Arthritis Incidence and Prevalence in Alberta using Administrative Health Data. ACR Open Rheumatology, June 2020; 2(7):424-429.

38. Tagimacruz MA, Bischak D, **Marshall DA.** Alternative Care Providers in Rheumatoid Arthritis Patient Care: A Queueing and Simulation Analysis. Health Systems. June 2020 (published online); 1 - 19

37. Mrklas K, Barber T, Campbell-Scherer D, Green LA, Li LC, Marlett M, *Miller J*, Shewchuk B, *Teare S*, Wasylak T, **Marshall DA.** Co-Design in the Development of a Mobile Health App for the Management of Knee Osteoarthritis by Patients and Physicians: Qualitative Study. JMIR Mhealth Uhealth. July 2020;8(7):e17893.

36. Hazlewood G, **Marshall DA**, Barber CE, Li LC, Barnabe C, Bykerk V, Tugwell P, Hull PM, Bansback N. Using a discrete-choice experiment in a decision aid to nudge patients towards value-concordant treatment choices in rheumatoid arthritis: A proof-of-concept study. Patient Preference and Adherence. May 2020;14:829-838.

35. **Marshall DA**, Grazziotin Lago L, Regier D, Wordsworth S, Buchanan J, Phillips K, IJzerman M. Addressing challenges of economic evaluation in precision medicine using dynamic simulation modelling. Value in Health, May 2020;23(5):566-573.

34. Malone DC, Ramsey SD, Patrick DL, Johnson FR, Mullins CD, Roberts MS, Willke RJ, **Marshall DA.** Criteria and Process for Initiating and Developing an ISPOR Good Practices Task Force Report. Value in Health, April 2020;23(4): 409-415.

33. Barber CE, Twilt M, Pham T, Currie GR, Benseler S, Yeung RSM, Batthish M, Blanchette N, Guzman J, Lang B, LeBlanc C, Levy DM, O'Brin C, Schmeling H, Soon G, Spiegel L, Whitney K, **Marshall DA**. A Canadian evaluation framework for quality improvement in childhood arthritis: key performance indicators of the process of care. Arthritis Research and Therapy, March 2020;22(1):53.

32. Hazlewood G, Pokharel G, Deadon R, **Marshall DA**, Bombardier C, Tomlinson G, Ma C, Seow CH, Panaccione R, Kaplan G. Patient preferences for maintenance therapy in Crohn's disease: A discrete-choice experiment. PLoS One, Jan 2020;15(1): e0227635

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30. Conner-Spady B, Bohm E, Loucks L, Dunbar M, **Marshall DA.** Patient expectations and satisfaction 6 and 12 months following total hip and knee replacement. Quality of Life Research, March 2020;29(3):705-719.

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20. Michaels-Igbokwe C, Lee R, **Marshall DA,** Currie G. Economic evaluations of strategies to prevent sports and recreational injury among children and adolescents: a systematic review. Injury Prevention, Aug 2019;25(4):340-347.

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17. Lopatina E, *Miller J*, *Teare S*, Marlett N, Patel J, Barber CE, Mosher D, Wasylak T, Woodhouse L, **Marshall DA**. The voice of patients in system redesign: A case study of redesigning a centralized system for intake of referrals from primary care to rheumatologists for patients with suspected rheumatoid arthritis. Health Expectations, June 2019;22:348-363.

16. Carr E., Patel J, Ortiz M, *Miller J*, *Teare S*, Barber CE, **Marshall DA**. Co-design of a patient experience survey for arthritis central uptake: an example of meaningful patient engagement in healthcare design. BMC Health Services Research, June 2019;19:355

15. Barber CE, Sandhu N, Rankin J, MacMullan P, **Marshall DA**, Barnabe C, Hazlewood G, Emrick A, Stevenson M, Then K, Benseler S, Twilt M, Mosher D. Rheum4U: Development and testing of a web-based tool for improving the quality of care for patients with rheumatoid arthritis. Clinical and Experimental Rheumatology Online, May 2019;37(3):0385-0392

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1. Bridges JFP, Hauber B, **Marshall DA**, Lloyd A, Prosser LA, Regier DA, Johnson FR, Mauskopf J. Conjoint analysis applications in health – a checklist: A report of the ISPOR good research practices for Conjoint Analysis Task Force. Value in Health, 2011; 14(4):403-13.

Selected Research Funding

(Role: Co-PI) IMAGINE 2.0 (Inflammation, Microbiome, and Alimentation: Gastro-Intestinal and Neuropsychiatric Effects) SPOR Clinical Disease Network – Knowledge Translation Implementation, CIHR, 2022 – 2026, $937,500

(Role: Principal Investigator & Consortium Coordinator) Producing an Arthritis Value-framework with economic Evidence-paving (PAVE) the way for rare childhood diseases, European Joint Programme Rare Diseases (EJPRD) / CIHR, 2022 – 2025, €1,314,403

(Role: PI) Enhancing a Community of Practice for the Health System Impact Fellowship Program: Advancing Capacity for Sustainable & Patient-Centred Learning Health Systems across Canada (Supplemental Funding), CIHR Health System Impact Fellowship National Cohort Retreat, 2022 – 2025, $150,000

(Role: PI) Enhancing a community of practice for the Health System Impact Fellowship Program: Advancing capacity for sustainable & patient-centered learning health systems across Canada, CIHR Health System Impact Fellowship National Cohort Retreat, 2021 – 2023, $200,000

(Role: Collaborator) Innovative National Strategies for Patient-Oriented Research Education (INSPIRE), CIHR Training Grant Strategy-for Patient-Oriented Research National Training Entity (NTE), 2021 – 2027, $5.2M

(Role: PI) Bringing the patient voice into decision making in health, University of Calgary International Researcher Partnership Workshop Grant, 2021 – 2023, $10,000

(Role: Co-investigator) Canadian MSK Rehab Research Network, CIHR Network Catalyst Grant, 2020 – 2025, $1.9M

(Role: Co-investigator) A multicenter, double blind, randomized trial comparing lyophilized fecal filtrate to lyophilized stool in treating recurrent, clostridiodes, difficile infection, CIHR Project Grant Fall 2019, 2020 – 2024, $1.3M

(Role: Co-investigator) Understanding the effect and determinants of adherence to system-level performance measures on outcomes for rheumatoid arthritis, CIHR Project Grant Fall 2019, 2020 – 2023, $229,500

(Role: Co-investigator) TIGeR: Translational Implementation of Genomics for Rare Diseases, Genome Alberta, Genomic Applications Partnership Program (GAPP), 2020 – 2023, $2M

(Role: PI) Co-designing youth-centered processes for transition to adult arthritis care with patient partners, Alberta Children's Hospital Foundation (ACHF) Child Health Grant, 2020 – 2022, $60,000

(Role: PI) Let's start counting (and make it count)! A scoping review of the socioeconomic burden of rare genetic diseases, CIHR Knowledge Synthesis Grant: Socio-Economic Burden of Inherited Diseases, 2019 – 2023, $99,545

(Role: PI) Towards a patient-centered system: Integrating preferences of patients with osteoarthritis into evaluation of healthservices interventions to improve patient outcomes and health system efficiency, CIHR 2019 – 2023, $283,051

(Role: Co-investigator) Establishing the validity of quality of life measures in young children with juvenile idiopathic arthritis, Arthritis Society 2019 - 2023, $324,039

(Role: PI) Biosimilar starts and switches, what we can learn from patients?, Arthritis Alliance of Canada (AAC) Legacy Grant, 2019 – 2020, $35,000

(Role: Co-investigator & Economics Lead) Care4Rare Canada: Harnessing multi-onomics to deliver innovative diagnostic care for rare genetic diseases in Canada (C4R-SOLVE), Ontario Genomics/Genome Canada, LSARP Genomics & Precision Health Grant, 2018 - 2024, $12.8M

(Role: Co-investigator & Economics Lead) UCAN CURE Precision Decisions for Childhood Arthritis, Ontario Genomics/Genome Canada, LSARP Genomics & Precision Health Grant, 2018 – 2024, $10M

(Role: Co-investigator & Economics Lead) UCAN CAN-DU: Canada-Netherlands personalized medicine network in childhood arthritis and rheumatic disease, CIHR, 2017 - 2024, $8.1M

(Role: Co-PI) Eliciting patient preferences for prioritization of healthcare processes in the management of inflammatory bowel disease,Crohn's Colitis Canada, 2017 - 2023, $250,000

(Role: Co-PI) Inflammation, Microbiome, and Alimentation: Gastro-Intestinal and Neuropsychiatric Effects: the IMAGINE-SPOR chronicdisease work, CIHR SPOR Network Grant, 2016 - 2024, $12.5M