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## **Dr. Biniam Kidane**

Correspondence language: English

Sex: Male

Date of Birth: 9/15

Canadian Residency Status: Canadian Citizen

Country of Citizenship: Canada

## **Contact Information**

The primary information is denoted by (\*)

### **Address**

Primary Affiliation (\*)

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## Dr. Biniam Kidane

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### Degrees

2011/7 - 2012/11	Master's non-Thesis, Masters of Science, McMaster University Degree Status: Completed
2005/8 - 2009/5	Doctorate, Doctor of Medicine, University of Toronto Degree Status: Completed
2001/9 - 2005/5	Bachelor's Honours, Honours Bachelor's of Science, University of Toronto Degree Status: Completed

### Credentials

2016/11	Fellow, Royal College of Physicians and Surgeons of Canada
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### Recognitions

2022/1 - 2023/1	Doctors of Manitoba Medal of Excellence Doctors Manitoba
2020/9	Manitoba Future 40 CBC Manitoba
2019/1 - 2020/1	2020 Aubie Angel Young Investigator Award in Clinical Research The University of Manitoba
2015/7	Chisholm Memorial Fellowship Research University of Toronto
2014/7	G.E Meads Award for Clinical Excellence and Teaching Western University

### Employment

2016/7	Attending Thoracic Surgeon Surgery, Rady College of Medicine, Winnipeg Health Sciences Centre
2014/8 - 2016/6	Thoracic Surgery Residency Surgery, Faculty of Medicine, University of Toronto
2009/8 - 2014/6	General Surgery Residency Surgery, Faculty of Medicine, Western University

## Affiliations

The primary affiliation is denoted by (\*)

(\*) 2016/8 Associate Professor, Department of Surgery, Section of Thoracic Surgery, Surgery, The University of Manitoba

## Research Funding History

### Awarded [n=13]

2023/1 - 2025/1 Principal Investigator	Reducing inflammatory post-operative complications after lung surgery: Validation with a porcine model  <b>Funding Sources:</b> Health Sciences Centre General Operating Grant Competition Total Funding - 69,944 Funding Competitive?: Yes
2023/1 - 2025/1 Co-investigator	Evaluating and Improving a National Learning Network  <b>Funding Sources:</b> Canadian Institutes of Health Research (CIHR) Research Operating Grants Total Funding - 810,000 Funding Competitive?: Yes
2022/7 - 2023/12 Principal Investigator	Patient-informed strategies to reduce the risk of respiratory complications following lung surgery.  <b>Funding Sources:</b> University of Manitoba The Dr. Paul H. T. Thorlakson Foundation Fund Total Funding - 30,411 Funding Competitive?: Yes
2022/7 - 2023/6 Principal Investigator	Organ-Preserving Endoscopic Resection & Adjuvant RADIO - immune-chemotherapy for esophageal cancer (OPERA RADIO)  <b>Funding Sources:</b> Cancer Care Manitoba Foundation (CCMF) Research Operating Grants Total Funding - 75,000 Funding Competitive?: Yes
2020/4 - 2022/9 Co-investigator	Improving Preoperative Lung Cancer Staging through the Canada Lymph Node Project: A Pan-Canadian Multi-Centered Crossover Study  <b>Funding Sources:</b> Ontario Ministry of Health and Long-Term Care Innovation Grant Total Funding - 197,865 Funding Competitive?: Yes
2021/4 - 2022/3 Principal Investigator	Organ Preserving Endoscopic Resection and Adjuvant RADIOchemotherapy for esophageal cancer (OPERA RADIO)  <b>Funding Sources:</b> Manitoba Medical Service Foundation (MMSF) Operating Grant Total Funding - 30,000

2020/7 - 2021/6 Co-investigator	<p>Funding Competitive?: Yes</p> <p>Understanding the pathology of vaping associated lung damage in young adults</p> <p><b>Funding Sources:</b>            Canadian Institutes of Health Research (CIHR)            Catalyst Grant            Total Funding - 100,000            Funding Competitive?: Yes</p> <p>Principal Investigator : Christopher Pascoe</p>
2018/3 - 2021/3 Principal Investigator	<p>Effects of One-Lung Ventilation surgery: a feasibility study</p> <p><b>Funding Sources:</b>            University of Manitoba            Surgery GFT Research Grant            Total Funding - 15,000            Funding Competitive?: Yes</p>
2018/1 - 2021/1 Co-investigator	<p>Identification of cancer specific metabolic signatures in body fluids of the patients with early stage lung cancer using proton magnetic resonance spectroscopy and mass spectrometry</p> <p><b>Funding Sources:</b>            Cancer Care Manitoba Foundation            Cancer Care Manitoba Foundation            Total Funding - 120,000            Funding Competitive?: Yes</p>
2018/10 - 2020/10 Principal Applicant	<p>Understanding the mechanisms of harmful VENTilation during surgery: the U-VENT study</p> <p><b>Funding Sources:</b>            Research Manitoba            New Investigator Operating Grant            Total Funding - 130,000            Funding Competitive?: Yes</p>
2018/4 - 2020/4 Principal Investigator	<p>One Lung Ventilation Pilot Study</p> <p><b>Funding Sources:</b>            University of Manitoba            Department of Surgery            Total Funding - 15,000            Funding Competitive?: Yes</p>
2019/4 - 2020/3 Co-applicant	<p>Mitophagy and regulations of non-small cell lung cancer</p> <p><b>Funding Sources:</b>            CancerCare Manitoba (CCMB)            CCMF Research Operating Grant            Total Funding - 120,000            Funding Competitive?: Yes</p>
2019/2 - 2020/2 Co-applicant	<p>Predicting survival for esophageal cancer patients undergoing curative-intent treatment</p> <p><b>Funding Sources:</b>            Canadian Institutes of Health Research (CIHR)            Data Analysis Using Existing Databases and Cohorts- Cancer Prevention and Control management            Total Funding - 100,000            Funding Competitive?: Yes</p>

## Publications

### Journal Articles

1. Ding Y, Yao L, Tan T, Li Q, Shi H, Tian Y, Franssen AJPM, de Loos ER, Al Zaidi M, Cardillo G, Kidane B, Grapatsas K, Wu Q, Zhang C. (2023). Risk assessment for postoperative venous thromboembolism using the modified Caprini risk assessment model in lung cancer. *J Thorac Dis.* 15(6): 3386-3396.  
Published  
Refereed?: Yes, Open Access?: Yes
2. Alizadeh J, Kavooosi M, Singh N, Lorzadeh S, Ravandi A, Kidane B, Ahmed N, Mraiche F, Mowat MR, Ghavami S. (2023). Regulation of Autophagy via Carbohydrate and Lipid Metabolism in Cancer. *Cancers (Basel).* 15(8): 2195.  
Refereed?: Yes, Open Access?: Yes
3. Fuentes KMI, Seastedt KP, Kidane B, Servais EL. (2023). Advanced Endoscopy for Thoracic Surgeons. *Thorac Surg Clin.* 33(3): 251-263.  
Published  
Refereed?: Yes, Open Access?: No
4. Kormish J, Ghuman T, Liu RY, Srinathan SK, Tan L, Graham K, Enns S, Buduhan G, Halayko AJ, Pascoe CD, Kidane B. (2023). Temporal and Spatial Patterns of Inflammation and Tissue Injury in Patients with Postoperative Respiratory Failure after Lung Resection Surgery: A Nested Case-Control Study. *Int J Mol Sci.* 24(12): 10051.  
Published  
Refereed?: Yes, Open Access?: Yes
5. Conen, D; Popova, E; Wang, MK; Chan, MTV; Landoni, G; Reimer, C; Srinathan, SK; Cata, JP; McLean, SR; Reyes, JCT; Grande, AM; Tallada, AG; Sessler, DI; Fleischmann, E; Maziak, DE; Kabon, B; Voltolini, L; Gutiérrez-Soriano, L; Tandon, V; DuMerton, D; Kidane, B; Rajaram, R; Shargall, Y; Neary, J; Wells, JR; McIntyre, WF; Blum, S; Ofori, SN; Vincent, J; Xu, L; Li, Z; Healey, JS; Garg, AX; Devereaux, PJ. (2023). Rationale and design of the colchicine for the prevention of perioperative atrial fibrillation in patients undergoing major noncardiac thoracic surgery (COP-AF) trial. *American Heart Journal.* 0(Feb 7): 0.  
In Press  
Refereed?: Yes, Open Access?: No
6. Kidane B, Gerard IJ, Spicer J, Kim JO, Fiset PO, Wawryko P, Cecchini MJ, Inculet R, Abdulkarim B, Fortin D, Qiabi M, Qing G, Enns S, Bashir B, Tankel J, Wakeam E, Warner A, Kopek N, Yaremko BP, Rodrigues GB, Laba JM, Qu M, Malthaner RA, Palma DA. (2023). Stereotactic ablative radiotherapy before resection to avoid delay for early-stage lung cancer or oligometastases during the COVID-19 pandemic: Pathologic outcomes from the SABR-BRIDGE protocol. *Cancer.* 129(18): 2798-2807.  
Refereed?: Yes, Open Access?: Yes
7. Kidane B, Bott M, Spicer J, Backhus L, Chaft J, Chudgar N, Colson Y, D'Amico TA, David E, Lee J, Najmeh S, Sepesi B, Shu C, Yang J, Swanson S, Stiles B. Expert Consensus Panel. (2023). The American Association for Thoracic Surgery (AATS) 2023 Expert Consensus Document: Staging and multidisciplinary management of patients with early-stage non-small cell lung cancer. *J Thorac Cardiovasc Surg.* 166(3): 637-654.  
Refereed?: Yes, Open Access?: No
8. Cheng JC, Buduhan G, Venkataraman S, Tan L, Sasaki D, Bashir B, Ahmed N, Kidane B, Sivananthan G, Koul R, Leylek A, Butler J, McCurdy B, Wong R, Kim JO. (2023). Endobronchially Implanted Real-Time Electromagnetic Transponder Beacon-Guided, Respiratory-Gated SABR for Moving Lung Tumors: A Prospective Phase 1/2 Cohort Study. *Adv Radiat Oncol.* 8(5): 101243.  
Published  
Refereed?: Yes, Open Access?: Yes

9. Hallet J, Sutradhar R, Jerath A, d'Empaire PP, Carrier FM, Turgeon AF, McIsaac DI, Idestrup C, Lorello G, Flexman A, Kidane B, Kaliwal Y, Chan WC, Barabash V, Coburn N, Eskander A. (2023). Association Between Familiarity of the Surgeon-Anesthesiologist Dyad and Postoperative Patient Outcomes for Complex Gastrointestinal Cancer Surgery. *JAMA Surgery*. 158(5): 465-473.  
Published  
Refereed?: Yes, Open Access?: No
10. Hallet J, Jerath A, Perez d'Empaire P, Eskander A, Carrier FM, McIsaac DI, Turgeon AF, Idestrup C, Flexman AM, Lorello G, Darling G, Kidane B, Kaliwal Y, Barabash V, Coburn N, Sutradhar R. (2023). The Association Between Hospital High-volume Anesthesiology Care and Patient Outcomes for Complex Gastrointestinal Cancer Surgery: A Population-based Study. *Ann Surg*. 278(3): e503-e510.  
Published  
Refereed?: Yes, Open Access?: No
11. Hallet, J; Sutradhar, R; Eskander, A; Carrier, FM; McIsaac, D; Turgeon, A; d'Empaire, PP; Idestrup, C; Flexman, A; Lorello, GMD; Darling, Gail MD; Kidane, B; Kaliwal, Y; Barabash, V; Coburn, N; Jerath, A. (2023). Variation in Anesthesiology Provider-Volume for Complex Gastrointestinal Cancer Surgery: A Population-Based Study. *Annals of Surgery*. 10.1097/SLA.000000000: 0.  
Published  
Refereed?: Yes, Open Access?: No
12. Ahmed, N; Kidane, B; Wan, L; Nugent, Z; Moldovan, N; McElrea, A; Shariati-Ievari, S; Qing, G; Tan, LT; Buduhan, G; Srinathan, SS. (2022). Metabolic Changes in Sputum and Exhaled Breath Condensate of Non-small Cell Lung Cancer Patients after Surgical Resection. *Journal of Thoracic Oncology*. 17(9): S579.  
Published  
Refereed?: Yes, Open Access?: No
13. Hongru Ren, Andrew Walkty, Biniam Kidane. (2022). Empyème pulmonaire chez un patient schizophrène ayant une mauvaise dentition. *CMAJ*. 194(5): 181-182.  
Published  
Refereed?: Yes, Open Access?: Yes
14. Simon R Turner, Jennifer D Artz, Gail E Darling, Laura L Donahoe, Biniam Kidane, Andrew J E Seely, Rahim H Valji, Madelaine Plourde Canadian Association of Thoracic Surgeons Equity, Diversity and Inclusion Task Force. (2022). Diversity in National Society Leadership and Podium Speakers in Cardiothoracic Surgery. *Ann Thorac Surg*. Feb 17((22)00199): S0003-4975.  
Published
15. Legatto T, Taylor VH, Kidane B, Anvari M, Hensel JM. (2022). The Impact of Psychiatric History and Peri-operative Psychological Distress on Weight Loss Outcomes 1 Year After Bariatric Surgery. *Obes Surg*. 32(2): 325-333.  
Published
16. Hirpara, DH; Kidane, B; Louie, AV; Zuk, V; Darling, G; Rousseau, M; Chesney, T; Coburn, N; Hallet, J. (2022). Long-Term Dependency in Older Adults after Surgery or Stereotactic Body Radiation Therapy for Stage I Non-Small Cell Lung Cancer. *Annals of Surgery*. 2022(Aug 15): 10-97.  
Published  
Refereed?: Yes, Open Access?: No
17. Bruinooge, AJ; Mao, R; Gottschalk, TH; Srinathan, SK; Buduhan, G; Tan, L; Halayko, AJ; Kidane, B. (2022). Identifying biomarkers of ventilator induced lung injury during one-lung ventilation surgery: a scoping review. *Journal of Thoracic Disease*. 14(11): 4506-20.  
Published  
Refereed?: Yes, Open Access?: Yes

18. Hirpara, DH; Coburn, N; Darling, G; Kidane, B; Rousseau, M; Gupta, V; Doherty, M; Zuk, V; Delibasic, V; Chan, W; Hallet, J. (2022). Symptom assessment following surgery for lung cancer: a Canadian population-based retrospective cohort study. *Annals of Surgery*. 277(2): e428-438.  
Published  
Refereed?: Yes, Open Access?: No
19. Kidane, B; Gowing, S; Richard Liu, R; Srinathan, S; Tan, L. (2022). Point-of-care ultrasound-guided percutaneous biopsy of solid masses in the thoracic outpatient clinic: a safe, high-yield procedure to accelerate tissue diagnosis for patients with advanced thoracic malignancy. *CANADIAN ASSOCIATION OF THORACIC SURGEONS*. 20: 0.  
Refereed?: No, Open Access?: Yes
20. NIHR Global Health Unit of Global Surgery; COVIDSurg Collaborative. (2022). Elective surgery system strengthening: development, measurement, and validation of the surgical preparedness index across 1632 hospitals in 119 countries. *The Lancet*. 400(10363): 1607-1617.  
Published  
Refereed?: Yes, Open Access?: Yes
21. Peel, JK; Funk, DJ; Slinger, P; Srinathan, S; Kidane, B. (2022). Tidal volume during 1-lung ventilation: A systematic review and meta-analysis. *The Journal of Thoracic and Cardiovascular Surgery*. 163(4): 1573-85.  
Published  
Refereed?: Yes, Open Access?: No
22. Ritzenthaler JD, Torres-Gonzalez E, Zheng Y, Zelko IN, Van Berkel V, Nunley DR, Kidane B, Halayko AJ, Summer R, Watson WH, Roman J. (2022). The pro-fibrotic and senescence phenotype of old lung fibroblasts is reversed or ameliorated by genetic and pharmacological manipulation of Slc7a11 expression. *Am J Physiol Lung Cell Mol Physiol*. NA: NA.  
Published
23. Buduhan G, Chand E, Kidane B, Srinathan S, Tan L, Liu R. (2022). Impact of cost-awareness education and surgeon-led positive deviance on intraoperative costs of thoracoscopic lobectomy. *The Journal of Thoracic and Cardiovascular Surgery*. Sep 17: 0.  
In Press  
Refereed?: Yes, Open Access?: No
24. Kamarajah, SK; Evans, RP; Nepogodiev, D; Hodson, J; Bundred, JR; Gockel, I; Gossage, JA; Isik, A; Kidane, B; Mahendran, HA; Negoi, I. (2022). The influence of anastomotic techniques on postoperative anastomotic complications: Results of the Oesophago-Gastric Anastomosis Audit. *The Journal of Thoracic and Cardiovascular Surgery*. 164(3): 674-84.  
Refereed?: Yes, Open Access?: No
25. Tan, V; Tjong, M; Chan, W; Yan, M; Delibasic, V; Darling, G; Davis, L; Doherty, M; Hallet, J; Kidane, B; Mahar, A. (2022). Pain and Interventions in Stage IV Non-Small Cell Lung Cancer: A Province-Wide Analysis. *Radiotherapy and Oncology*. 174: S33.  
Published  
Refereed?: No, Open Access?: No
26. Hasan, SM; Buduhan, G; Liu, R; Tan, L; Srinathan, S; Kidane, B. (2022). SHOULD PERORAL ENDOSCOPIC MYOTOMY BE THE PREFERRED TREATMENT FOR PATIENTS WITH SYMPTOMATIC ZENKER'S DIVERTICULUM?. *Gastroenterology*. 162(7): S-468.  
Published  
Refereed?: Yes, Open Access?: No



27. Yan, M; Tjong, MC; Chan, WC; Darling, G; Delibasic, V; Davis, LE; Doherty, M; Hallet, J; Kidane, B; Mahar, A; Mittmann, N. (2022). Dyspnea in Patients with Stage IV Non-Small Cell Lung Cancer: A Population-Based Analysis of Disease Burden and Patterns of Care. *International Journal of Radiation Oncology, Biology, Physics*.114(3): e397-8.  
Published  
Refereed?: Yes, Open Access?: Yes
- [28.](#) Harrison, L; Mahar, A; Coburn, N; Boyes, R; Pugliese, M; Compton, C; Darling, G; Davis, L; Decker, K; Gupta, V; Kidane, B. (2022). Development of a Prediction Model for Survival Time in Esophageal Cancer Patients Treated with Resection. *International Journal of Population Data Science*.7(3): 2097.  
Published  
Refereed?: Yes, Open Access?: No
- [29.](#) Oesophago-Gastric Anastomotic Audit (OGAA) Collaborative ; Kamarajah, SK; Evans, RP; Nepogodiev, D; Hodson, J; Bundred, JR; Gockel, I; Gossage, JA; Isik, A; Kidane, B; Mahendran, HA. (2022). Textbook outcome following oesophagectomy for cancer: international cohort study. *British Journal of Surgery*.109(5): 439-49.  
Published  
Refereed?: Yes, Open Access?: No
- [30.](#) Kidane B, Spicer J, Kim JO, Gerard IJ, Abdulkarim B, Fiset PO, Cecchini MJ, Malthaner RA, Inculet RI, Wakeam E, Fortin D. (2022). Stereotactic Ablative Radiotherapy Before Resection to Avoid Delay for Early-Stage Lung Cancer or Oligometastases. *Journal of Thoracic Oncology*.17(9): S20.  
Published  
Refereed?: Yes, Open Access?: No
- [31.](#) Hallet J, Rousseau M, Gupta V, Hirpara D, Zhao H, Coburn N, Darling G, Kidane B; and members of the REcovery after Surgical Therapy for Older adults Research – Cancer (RESTORE-Cancer) group. (2022). Long-Term Functional Outcomes Among Older Adults Undergoing Video-Assisted Versus Open Surgery for Lung Cancer: A Population-Based Cohort Study. *Ann Surg*. Jan(21): NA.  
Published  
Refereed?: Yes, Open Access?: No
32. Turner SR, Artz J, Darling GE, Donahoe LL, Kidane B, Seely AJE, Valji RH, Plourde M. (2022). Diversity in National Society Leadership and Podium Speakers in Cardiothoracic Surgery. *Ann Thorac Surg*. NA(22): NA.  
Published
- [33.](#) Kim JO, Balshaw R, Trevena C, Banerji S, Murphy L, Dawe D, Tan L, Srinathan S, Buduhan G, Kidane B, Qing G, Domaratzki M, Aliani M. (2022). Data-driven identification of plasma metabolite clusters and metabolites of interest for potential detection of early-stage non-small cell lung cancer cases versus cancer-free controls. *Cancer Metab*.10(1): 16.  
Published  
Refereed?: Yes, Open Access?: Yes
- [34.](#) Yang, W;Xing, X; Yeung, SJ; Wang, S; Chen, W; Bao, Y; Wang, F; Feng, S; Peng, F; Wang, X; Chen, S; He, M; Zhang, N; Wang,H; Zeng, B; Liu, Z; Kidane, B; Seder, CW; Koyanagi, K; Shargall, Y; Luo, H; Peng, S; Cheng, C. (2022). Neoadjuvant programmed cell death 1 blockade combined with chemotherapy for resectable esophageal squamous cell carcinoma. *Journal for immunotherapy of cancer*.10(1): NA.  
Published  
Refereed?: Yes, Open Access?: Yes
35. Michael Domaratzki. (2022). Deus ex machina? Demystifying rather than deifying machine learning. *J Thorac Cardiovasc Surg*. 163(3): 1131-1137.  
Published  
Refereed?: Yes, Open Access?: Yes



36. Gupta, V; Kidane, B. (2022). Commentary: Are we confident in abandoning P values, or is this just the interval?. *The Journal of Thoracic and Cardiovascular Surgery*.164(1): e41-2.  
Published  
Refereed?: Yes, Open Access?: Yes
37. Hallet, J; Jerath, A; d'Empaire, PP; Eskander, A; Carrier, FM; McIsaac, DI; Turgeon, AF; Idestrup, C; Flexman, AM; Lorello, G; Darling, G. (2022). The Association between Hospital High-volume Anesthesiology Care and Patient Outcomes for Complex Gastrointestinal Cancer Surgery: A Population-based Study. *Annals of Surgery*. Oct 27: 10-97.  
Published
38. Cheng, JC; Buduhan, G; Venkataraman, S; Bashir, BM; Ahmed, N; Tan, L; Kidane, B; Sasaki, DK; Rathod, S; Sivananthan, G; Koul, R. (2022). Endobronchial Implanted Real-Time Radiofrequency (RF) Transponder Beacon Guided, Respiratory-Gated, Stereotactic Body Radiotherapy for Moving Lung Tumors: Interim Analysis of a Prospective Phase I/II Cohort Study. *International Journal of Radiation Oncology, Biology, Physics*.114(3): e369.  
Published  
Refereed?: Yes, Open Access?: No
39. Pascoe CD, Jha A, Ryu MH, Ragheb M, Vaghasiya J, Basu S, Stelmack GL, Srinathan S, Kidane B, Kindrachuk J, O'Byrne PM, Gauvreau GM, Ravandi A, Carlsten C, Halayko AJ. (2021). Allergen inhalation generates pro-inflammatory oxidised phosphatidylcholine associated with airway dysfunction. *Eur Respir J*. 57(2): 2000839.  
Published
40. Sullivan KA, Farrokhyar F, Leontiadis GI, Patel YS, Churchill IF, Hylton DA, Xie F, Seely AJE, Spicer J, Kidane B, Turner SR, Yasufuku K, Hanna WC. (2021). Routine systematic sampling versus targeted sampling during endobronchial ultrasound: A randomized feasibility trial. *J Thorac Cardiovasc Surg*. 21: NA.  
Published
41. Darling GE, Sulman J, Espin-Garcia O, Trudel JG, Atenafu EG, Kidane B. (2021). Does it matter how we evaluate HRQOL? Longitudinal comparison of the EORTC QLQ-C30/QLQ-OG25 and FACT-E. *J Cancer Surviv*. 15(4): 641-650.  
Published
42. Giles AE, Kidane B, Schellenberg M, Ball CG. (2021). The Primary Spontaneous Pneumothorax trial: A critical appraisal from the surgeon's perspective. *J Thorac Cardiovasc Surg*. 162(5): 1428-1432.  
Published
43. Liu R, Wess A, Kidane B, Srinathan S, Tan L, Buduhan G. (2021). A simple "passive awareness" intervention to decrease the cost of thoracoscopic lobectomy. *Updates Surg*. 73(6): 2369-2374.  
Published
44. Goldberg E, Ilevari-Shariati S, Kidane B, Kim J, Banerji S, Qing G, Srinathan S, Murphy L, Aliani M. (2021). Comparative metabolomics studies of blood collected in Streck and heparin tubes from lung cancer patients. *PLoS One*. 16(4): NA.  
Published
45. Hirpara DH, Coburn NG, Darling GE, Kidane B, Hallet J. (2021). Response to the Comment on "Symptom Assessment Following Surgery for Lung Cancer: A Canadian Population-based Retrospective Cohort Study". *Ann Surg*. 274(6): 934-935.  
Published
46. Ren H, Walkty A, Kidane B. (2021). Pulmonary empyema in a patient with schizophrenia and poor dentition. *CMAJ*. 193(44): NA.  
Published

47. Glasbey JC, Nepogodiev D, Simoes JFF, Omar O, Li E, Venn ML, Pgdme, Abou Chaar MK, Capizzi V, Chaudhry D, Desai A, Edwards JG, Evans JP, Fiore M, Videria JF, Ford SJ, Ganly I, Griffiths EA, Gujjuri RR, Kolias AG, Kaafarani HMA, Minaya-Bravo A, McKay SC, Mohan HM, Roberts KJ, San Miguel-Méndez C, Pockney P, Shaw R, Smart NJ, Stewart GD, Sundar Mrcog S, Vidya R, Bhangu AA COVIDSurg Collaborative. (2021). Elective Cancer Surgery in COVID-19-Free Surgical Pathways During the SARS-CoV-2 Pandemic: An International, Multicenter, Comparative Cohort Study. *J Clin Oncol.* 39(1): 66-78.  
Published  
Refereed?: Yes, Open Access?: Yes
48. Tjong MC, Doherty M, Tan H, Chan WC, Zhao H, Hallet J, Darling G, Kidane B, Wright FC, Mahar A, Davis LE, Delibasic V, Parmar A, Mittmann N, Coburn NG, Louie AV. (2021). Province-Wide Analysis of Patient-Reported Outcomes for Stage IV Non-Small Cell Lung Cancer. *Oncologist.* 26(10): 1800-1811.  
Published
49. Kidane B, Higgins S, Hirpara DH, Kaaki S, Shen YC, Allison F, Waddell TK, Darling GE. (2021). From Emergency Department Visit to Readmission After Esophagectomy: Analysis of Burden and Risk Factors. *Ann Thorac Surg.* 112(2): 379-386.  
Published
50. Peymani P, Dehesh T, Aligolighasemabadi F, Sadeghdoust M, Kottfis K, Ahmadi M, Mehrbod P, Iranpour P, Dastghaib S, Nasimian A, Ravandi A, Kidane B, Ahmed N, Sharma P, Shojaei S, Bagheri Lankarani K, Madej A, Rezaei N, Madrakian T, Los MJ, Labouta HI, Mokarram P, Ghavami S. (2021). Statins in patients with COVID-19: a retrospective cohort study in Iranian COVID-19 patients. *Transl Med Commun.* 1(6): NA.  
Published
51. Giles AE, Kidane B. (2021). Commentary: Toward precision surgery: Advances in defining sublobar resection candidacy. *J Thorac Cardiovasc Surg.* NA(21): NA.  
Published
52. Kidane B, Wakeam E, Meguid RA, Odell DD. (2021). Administrative and clinical databases: General thoracic surgery perspective on approaches and pitfalls. *J Thorac Cardiovasc Surg.* 162(4): 1146-1153.  
Published
53. Duan H, Wang T, Luo Z, Wang X, Liu H, Tong L, Dong X, Zhang Y, Valmasoni M, Kidane B, Almhanna K, Wiesel O, Pang S, Ma J, Yan X. (2021). A multicenter single-arm trial of sintilimab in combination with chemotherapy for neoadjuvant treatment of resectable esophageal cancer (SIN-ICE study). *Ann Transl Med.* 9(22): NA.  
Published
54. Giffin C, Kidane B. (2021). Commentary: Less is maybe more: Sublobar resection in screen-detected lung cancers. *J Thorac Cardiovasc Surg.* NA(21): NA.  
Published
55. Giles AE, Teferi Y, Kidane B, Bayaraa B, Tan L, Buduhan G, Srinathan S. (2021). Lung Resection Without Tissue Diagnosis: A Pragmatic Perspective on the Indeterminate Pulmonary Nodule. *Clin Lung Cancer.* 22(5): 774-781.  
Published
56. Luc JGY, Archer MA, Arora RC, Bender EM, Blitz A, Cooke DT, Hlci TN, Kidane B, Ouzounian M, Varghese TK Jr, Antonoff MB. (2021). Does Tweeting Improve Citations? One-Year Results From the TSSMN Prospective Randomized Trial. *Ann Thorac Surg.* 111(1): 296-300.  
Published
57. Ahmed N, Kidane B, Wang L, Nugent Z, Moldovan N, McElrea A, Shariati-levari S, Qing G, Tan L, Buduhan G, Srinathan SK, Aliani M. (2021). Metabolic Changes in Early-Stage Non-Small Cell Lung Cancer Patients after Surgical Resection. *Cancers (Basel).* 13(12): NA.  
Published

58. Chen C, Flores R, Kidane B, Hamaji M, Guo X. (2021). Application of low anterior mediastinal tracheostomy for locally advanced cervicothoracic esophageal cancer undergoing total laryngopharyngoesophagectomy: a case report. *J Gastrointest Oncol.* 12(6): 3107-3114.  
Published
59. Kidane B, Levin DP. (2021). Identification and Resolution of Asymptomatic COVID-19 Pneumonitis and Colitis: Serial Assessment of Fluorodeoxyglucose Positron Emission Tomography-Computed Tomography for Evaluation of Lung Cancer. *J Thorac Oncol.* 16(1): NA.  
Published
60. Hylton DA, Kidane B, Spicer J, Turner S, Churchill I, Sullivan K, Finley CJ, Shargall Y, Agzarian J, Seely AJE, Yasufuku K, Hanna WC. (2021). Endobronchial Ultrasound Staging of Operable Non-small Cell Lung Cancer: Do Triple-Normal Lymph Nodes Require Routine Biopsy?. *Chest.* 159(6): 2470-2476.  
Published
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Published
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Published
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Published  
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Published  
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71. Hylton DA, Turner S, Kidane B, Spicer J, Xie F, Farrokhyar F, Yasufuku K, Agzarian J, Hanna WC; Canadian Association of Thoracic Surgery (CATS) Working Group. (2019). The Canada Lymph Node Score for prediction of malignancy in mediastinal lymph nodes during endobronchial ultrasound. *Journal of Thoracic Cardiovascular Surgery*. 19: 10.1016/j.jtcvs.2019.1.  
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- [101.](#) Biniam Kidane Moishe Liberman. (2017). Interventional Bronchoscopy; Endobronchial Ultrasound. *Clinical Advisor.com.* online(online): online.  
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Refereed?: Yes
103. Kidane B. (2017). Endobronchial ultrasound in invasive mediastinal staging: A method for all seasons?. *J Thorac Cardiovasc Surg.*153(6): 1565-1566.  
Published  
Refereed?: Yes
104. El-Beheiry MH; Kidane B; Zehr M; Vogt K; Parry NG; Malthaner R; Forbes TL. (2016). Predictors of Discharge Home after Blunt Traumatic Thoracic Aortic Injury. *Annals of Vascular Surgery.* 30: 192-7.  
Published
105. Trudel JG; Sulman J; Atenafu EG; Kidane B; Darling GE. (2016). Longitudinal Evaluation of Trial Outcome Index Scores in Patients With Esophageal Cancer. *Annals of Thoracic Surgery.* 102(1): 269-75.  
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Refereed?: Yes, Open Access?: No
- [106.](#) Kidane B; Manji F; Lam J; Taylor BM. (2016). Use of Serotonergic Drugs in Canada for Gastrointestinal Motility Disorders: Results of a Retrospective Cohort Study. *Scientifica.* 2016(2016): 5797804.  
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107. Kidane B; Yasufuku K. (2016). Advances in Image-Guided Thoracic Surgery. *Thoracic surgery clinics.* 26(2): 129-38.  
Published
- [108.](#) Kidane B; Hirpara D; Yasufuku K. (2016). Photodynamic Therapy in Non-Gastrointestinal Thoracic Malignancies. *International Journal of Molecular Sciences.* 17(1): E135.  
Published
- [109.](#) Kidane B, Pourde M, Leydier L et al. (2016). RBC transfusion is associated with increased risk of respiratory failure after pneumonectomy. *Journal of Surgical Oncology.* 115(4): 435-441.  
Submitted  
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- [110.](#) Kidane B, Gupta V, El-Beheiry M, Vogt K, Parry NG, Malthaner RA, Forbes TL. (2016). Association Between Pre-Hospital Time and Mortality Following Blunt Thoracic Aortic Injuries. *Annals of Vascular Surgery.* 41(1): 77-82.  
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111. Kidane B, Sulman J, Xu W, Kong Q, Wong R, Knox JJ, Darling GE. (2016). Pretreatment quality-of-life score is a better discriminator of oesophageal cancer survival than performance status. *European Journal of Cardiothoracic Surgery*. 51(1): 148-154.  
Published  
Refereed?: Yes, Open Access?: No
112. Kidane B; Sulman J; Xu W; Kong QQ; Wong R; Knox JJ; Darling GE. (2016). Baseline measure of health-related quality of life (Functional Assessment of Cancer Therapy-Esophagus) is associated with overall survival in patients with esophageal cancer. *Journal of Thoracic & Cardiovascular Surgery*. 151(6): 1571-80.  
Published  
Refereed?: Yes, Open Access?: No
113. Yang M, Kidane B, Saettler E. (2016). Delayed Small Bowel Obstruction due to Intra-abdominal Drain: Case Report and Literature Review. *International Surgery*. 103(3-4): 149-153.  
Accepted  
Refereed?: Yes, Open Access?: No
114. Kidane B Sulman J Xu W Kong QQ Wong R Knox JJ Darling GE. (2016). Baseline measure of health-related quality of life (Functional Assessment of Cancer Therapy-Esophagus) is associated with overall survival in patients with esophageal cancer. *Journal of Thoracic and Cardiovascular Surgery*. 151(6): 1571-80.  
Published

## Book Chapters

1. Kidane B, De Rouet M, Darling GE. (2018). Carcinoma of the Esophagus. LoCicero J, Feins RH, Colson YL, Rocco G. *Shield's General Thoracic Surgery*. 8  
Published, Wolters Kluwer, United States of America

## Conference Publications

1. Kidane, B; Aftab, AU; Srinathan, S; Buduhan, G; Tan, L; Poole, E; Domaratzki, M. MACHINE LEARNING TO ELUCIDATE THE IMPACT OF INTRA-OPERATIVE VARIABLES ON THORACIC SURGERY OUTCOMES. 56th Annual Meeting of the Society of Thoracic Surgeons, New Orleans, United States of America  
Conference Date: 2020/1  
Paper  
Refereed?: Yes, Invited?: No

## Knowledge and Technology Translation

2017/11                      Member, Standards Development

## Student/Postdoctoral Supervision

### Bachelor's [n=1]

2018/6 - 2020/3              Allan Bruinooge, Univeristy of Manitoba  
Principal Supervisor      Thesis/Project Title: One-Lung Ventilation Study and One-Lung Ventilation 2 Study  
Present Position: Co-op Student

**Master's Thesis [n=3]**

2022/9 - 2023/9 Co-Supervisor	Caleb Turon, University of Manitoba Thesis/Project Title: Investigation of OneLung Ventilation with the Aim to Improve Standard Operation Procedure: A Machine Learning Approach Present Position: Master's Student
2019/10 - 2020/10 Principal Supervisor	Aisha Rafiq, University of Manitoba Thesis/Project Title: Functional Survival after Lung Cancer Treatment Present Position: MSC student - department of community health sciences
2018/9 - 2020/9 Co-Supervisor	Atif UI Utab, University of Manitoba Thesis/Project Title: Machine learning through One-Lung Ventilation Present Position: MSC student - department of computer sciences

**Doctorate [n=6]**

2021/5 - 2022/8 Principal Supervisor	Cate Giffin, University of Manitoba Thesis/Project Title: Establishment of a pig model for ventilation induced lung injury. Present Position: BSc Med Student
2021/5 - 2022/8 Principal Supervisor	Charith Karunatilake, University of Manitoba Thesis/Project Title: One-Lung Ventilation 2- Retrospective ChartReview Present Position: BSc Med Student
2021/1 - 2021/12 Co-Supervisor	Navjit Singh, The University of Manitoba Thesis/Project Title: Outstanding BSc (Med) Project in biochemistry and medical genetics with commercial application Present Position: BSc Med Student
2021/1 - 2021/12 Co-Supervisor	Navjit Singh, The University of Manitoba Thesis/Project Title: Phillip Yaffee Memorial Prize Present Position: BSc Med Student
2020/5 - 2021/8 Principal Supervisor	Madeline Robinson, University of Manitoba Thesis/Project Title: Organ-Preserving Endoscopic Resection & AdjuvantRADIO-Immuno-Chemotherapy For Esophageal Cancer (OPERA RADIO) - RetrospectiveChart Review Present Position: BSc Med Student
2019/6 - 2020/9 Principal Supervisor	Eagan Peters, University of Manitoba Thesis/Project Title: HRQOL in thoracic surgery and impact on outcomes Present Position: BSc Med Student

**Date Submitted:** 2023-09-29 12:25:42

**Confirmation Number:** 1667589

**Template:** CIHR Biosketch

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## **Dr. Shantanu Banerji**

Correspondence language: English

Sex: Male

Date of Birth: 9/25

Canadian Residency Status: Canadian Citizen

Country of Citizenship: Canada

## **Contact Information**

The primary information is denoted by (\*)

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### **Website**

Corporate <https://www.cancercare.mb.ca/Research/research-institute-at-cancercare-manitoba/our-scientists>



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## Dr. Shantanu Banerji

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### Degrees

2007/10 - 2011/9	Post-doctorate, Postdoctorate in Cancer Genomics, Dana Farber Cancer Institute Degree Status: Completed
2005/7 - 2007/9	Doctorate, Fellow of the Royal College of Physicians of Canada - Fellow, The University of Manitoba Degree Status: Completed
2002/7 - 2006/6	Doctorate, Fellow of the Royal College of Physicians of Canada - Fellow, The University of Manitoba Degree Status: Completed
1998/8 - 2002/5	Doctorate, Doctor of Medicine - M.D., The University of Manitoba Degree Status: Completed
1999/5 - 2000/8	Bachelor's, Bachelor's of Science, The University of Manitoba Degree Status: Completed
1995/8 - 1998/5	Bachelor's, Bachelor's of Science, The University of Manitoba Degree Status: Completed

### Recognitions

2008/7 - 2010/6	International Association for the Study of Lung Cancer Fellowship International Association for the Study of Lung Cancer
2005/1	Dr. Dale Iwanoczko Award in Internal Medicine Department of Internal Medicine, Faculty of Medicine, University of Manitoba
2003/1	University of Manitoba Medicine Teaching Award Faculty of Medicine, University of Manitoba

### Employment

2021/6	Co-Chair, Sarcoma Disease Site Committee Sarcoma, Queen's University, Canadian Cancer Clinical Trials Group
2021/4	Associate Professor Internal Medicine, Faculty of Health Sciences, The University of Manitoba
2018/6	Director of Precision Oncology and Advanced Therapeutics Oncology, CancerCare Manitoba, CancerCare Manitoba
2011/9	Senior Scientist Research Institute of Oncology and Hematology, CancerCare Manitoba, CancerCare Manitoba

2011/9	Medical Oncologist Medical Oncology and Hematology, CancerCare Manitoba, CancerCare Manitoba
2011/9 - 2021/3	Assistant Professor Internal Medicine, Rady Faculty of Health Sciences, The University of Manitoba
2007/10 - 2011/8	Research Fellow Cancer Biology, Broad Institute of MIT and Harvard, Broad Institute of MIT and Harvard
2007/10 - 2011/8	Research Fellow Medical Oncology, Harvard University, Dana Farber Cancer Institute
2005/7 - 2007/6	Medical Oncology Resident Medicine, Rady Faculty of Health Sciences, The University of Manitoba
2002/7 - 2005/6	Internal Medicine Resident Medicine, Rady Faculty of Health Sciences, The University of Manitoba

## Affiliations

The primary affiliation is denoted by (\*)

(\*) 2011/9 Associate Professor, The University of Manitoba

## Research Funding History

### Awarded [n=14]

2022/7 - 2024/6 Principal Investigator	Genome360: Manitoba's Provincial Applied Genomics Platform <b>Funding Sources:</b> CancerCare Manitoba (CCMB) Infrastructure Grant Total Funding - 321,000 Funding Competitive?: No
2023/7 - 2024/6 Principal Applicant	Terry Fox Prairie Consortium Matched Funding Year 3 <b>Funding Sources:</b> CancerCare Manitoba (CCMB) Infrastructure Grant Total Funding - 150,000 Funding Competitive?: Yes
2023/7 - 2024/6 Co-applicant	Targeting the YAP-TEAD pathway in small cell neuroendocrine cancers <b>Funding Sources:</b> CancerCare Manitoba (CCMB) Operating Grant Total Funding - 75,000 Funding Competitive?: Yes
2022/7 - 2024/6 Co-applicant	Deciphering the Oncogenic Role of ZEB2 in B Cell Precursor Acute Lymphocytic Leukemia <b>Funding Sources:</b> CancerCare Manitoba (CCMB) Operating Grant Total Funding - 150,000 Funding Competitive?: Yes

2022/7 - 2023/6 Co-applicant	<p>Organ-Preserving Endoscopic Resection And concurrent Radiation/Immuno-Oncology for esophageal cancer (OPERA RADIO): a pilot study</p> <p><b>Funding Sources:</b> CancerCare Manitoba (CCMB) Operating Grant Total Funding - 75,000 Funding Competitive?: Yes</p>
2022/7 - 2023/6 Principal Applicant	<p>Terry Fox Prairie Consortium Matched Funding Year 2</p> <p><b>Funding Sources:</b> CancerCare Manitoba (CCMB) Infrastructure Grant Total Funding - 150,000 Funding Competitive?: No</p>
2018/9 - 2022/8 Collaborator	<p>Early detection of cancer in high-risk patients through profiling of circulating tumor DNA</p> <p><b>Funding Sources:</b> Canadian Institutes of Health Research (CIHR) Project Grant Total Funding - 1,977,525 Funding Competitive?: Yes</p> <p>Principal Investigator : Trevor Pugh</p>
2021/7 - 2022/6 Principal Investigator	<p>Genome360: Manitoba's Provincial Applied Genomics Platform</p> <p><b>Funding Sources:</b> CancerCare Manitoba (CCMB) Infrastructure Grant Total Funding - 135,000 Funding Competitive?: No</p>
2020/6 - 2021/7 Co-applicant	<p>Organ-Preserving Endoscopic Resection And concurrent Radiation/Immuno-Oncology for esophageal cancer (OPERA RADIO): a pilot study</p> <p><b>Funding Sources:</b> University of Manitoba Operating Grant Total Funding - 15,000 Funding Competitive?: Yes</p>
2020/6 - 2021/6 Co-applicant	<p>Harnessing Population-Based Electronic Health-care Records to Construct Family Health Histories for Accurate Disease Risk Prediction and Heritability Estimation</p> <p><b>Funding Sources:</b> University of Manitoba Operating Grant Total Funding - 100,000 Funding Competitive?: Yes</p>
2019/6 - 2021/6 Principal Applicant	<p>Genome360 Phase II: Manitoba's Provincial Applied Genomics Enterprise Platform".</p> <p><b>Funding Sources:</b> Genome Canada RPP Total Funding - 500,000 Funding Competitive?: Yes</p>
2018/7 - 2020/7	<p>Pulling the Plug on Small Cell Lung Cancer</p>

Co-applicant	<b>Funding Sources:</b> CancerCare Manitoba (CCMB) Operating grant Total Funding - 120,000 Funding Competitive?: Yes  Co-investigator : Banerji, Versha
2018/7 - 2020/7 Co-investigator	PreOperative Treatment With ChEmotheRapy or ChemoRAditionN in EsophaGeal or GastroEsophageal AdenocaRcinoma (POWERRANGER)  <b>Funding Sources:</b> CancerCare Manitoba (CCMB) Operating grant Total Funding - 79,508 Funding Competitive?: Yes
2018/7 - 2019/7 Principal Investigator	Provincial Clinical Genomics Testing  <b>Funding Sources:</b> CancerCare Manitoba (CCMB) Infrastructure Grant Total Funding - 213,255 Funding Competitive?: Yes

## Publications

### Journal Articles

1. Rupp M, Fanton-Aita F, Snow S, Wheatley-Price P, Melosky B, Juergens RA, Chu QY, Blais N, Banerji S, Ng R, Khoudigian S, Sharma A, On PV, Liu GF. (2023). Lorlatinib Effectiveness and Quality-of-Life in Patients with ALK-Positive NSCLC Who Had Failed Second-Generation ALK Inhibitors: Canadian Real-World Experience. *Current Oncol.* 30(7): 6559-6574.  
Published
2. Ko JJ, Banerji S, Blais N, Brade A, Clelland C, Schellenberg D, Snow S, Wheatley-Price P, Yuan R, Melosky B. (2023). Follow-Up Imaging Guidelines for Patients with Stage III Unresectable NSCLC: Recommendations Based on the PACIFIC Trial. *Current Oncol.* 30(4): 3817-3828.  
Published
3. Cheema PK, Banerji S, Blais N, Chu QS, Juergens RA, Leighl NB, Sacher A, Sheffield BS, Snow S, Vincent M, Wheatley-Price PF, Yip S, Melosky BL. (2023). Canadian Consensus Recommendations on the Management of KRAS G12C-Mutated NSCLC. *Current Oncol.* 30(7): 6473-6496.  
Published
4. Goss GD, Spaans JN, Huntsman D, Asmis T, Andrews Wright NM, Duciaume M, Kaurah P, Miller RR, Banerji S, Sekhon HS, Gomes MM. (2022). Histologic and Genotypic Characterization of Lung Cancer in the Inuit Population of the Eastern Canadian Arctic. *Current Oncol.* 29(5): 3171-3186.  
Published
5. Kim JO, Balshaw R, Trevena C, Banerji S, Murphy L, Dawe D, Tan L, Srinathan S, Buduhan G, Kidane B, Qing G, Domaratzki M, Aliani M. (2022). Data-driven identification of plasma metabolite clusters and metabolites of interest for potential detection of early-stage non-small cell lung cancer cases versus cancer-free controls. *Cancer Metab.* 29(7): 4981-4997.  
Published



6. Sanusi RA, Yan L, Hamad AF, Ayilara OF, Vasylyk V, Jozani MJ, Banerji S, Delaney J, Hu P, Wall-Wieler E, Lix LM. (2022). Transitions between versions of the International Classification of Diseases and chronic disease prevalence estimates from administrative health data: a population-based study. *BMC Public Health*. 22(1): 701.  
Published
7. Ionescu DN, Stockley TL, Banerji S, Couture C, Mather CA, Xu Z, Blais N, Cheema PK, Chu QS, Melosky B, Leighl NB. (2022). Consensus Recommendations to Optimize Testing for New Targetable Alterations in Non-Small Cell Lung Cancer. *Current Oncol*. 29(7): 4981-4997.  
Published
8. Mathur S, Prince L, Bucher O, Xue L, Banerji S, Dawe DE. (2022). The impact of the modified frailty index on clinical outcomes for patients with stage IV non-small cell lung cancer receiving chemotherapy. *J Geriatr Oncol*. 13(5): 654-661.  
Published
9. Goldberg E, Ilevari-Shariati S, Kidane B, Kim J, Banerji S, Qing G, Srinathan S, Murphy L, Aliani M. (2021). Comparative metabolomics studies of blood collected in Streck and heparin tubes from lung cancer patients. *PLoS One*. 16(4): e02469648.  
Published
10. Cheema PK, Banerji SO, Blais N, Chu QS, Desmeules P, Juergens RA, Leighl NB, Sheffield BS, Wheatley-Price PF, Melosky BL. (2021). Canadian Consensus Recommendations on the Management of MET-Altered NSCLC. *Current Oncol*. 28(6): 4552-4576.  
Published
11. Rittberg R, Banerji S, Kim JO, Rathod S, Dawe DE. (2021). Treatment and Prevention of Brain Metastases in Small Cell Lung Cancer. *Am J Clin Oncol*. 44(12): 629-638.  
Published
12. Banerji S, Meyers DE, Harlos C, Dawe DE. (2021). The Role of Immunotherapy in the Treatment of Malignant Pleural Mesothelioma. *Current Oncol*. 28(6): 4542-4551.  
Published
13. Simmons C, Deyell RJ, MacNeill AJ, Vera-Badillo FE, Smrke A, Razak AR, Banerji S, McLeod D, Noujaim J. (2021). Canadian consensus on TRK-inhibitor therapy for NTRK fusion-positive sarcoma. *Int J Cancer*. 149(9): 4552-4576.  
Published
14. Hamad AF, Vasylyk V, Yan L, Sanusi R, Ayilara O, Delaney JA, Wall-Wieler E, Jozani MJ, Hu P, Banerji S, Lix LM. (2021). Mapping three versions of the international classification of diseases to categories of chronic conditions. *Int J Popul Data Sci*. 6(1): 1406.  
Published
15. Illini O, Hochmair MJ, Fabikan H, Weinlinger C, Tufman A, Swalduz A, Lamberg K, Hashemi SMS, Huemer F, Vikström A, Wermke M, Absenger G, Addeo A, Banerji S, Calles A, Clarke S, Di Maio M, Durand A, Duruisseaux M, Itchins M, Kääränen OS, Krenn F, Laack E, de Langen AJ, Mohorcic K, Pall G, Passaro A, Prager G, Rittmeyer A, Rothenstein J, Schumacher M, Wöll E, Valipour A. (2021). Selpercatinib in RET fusion-positive non-small-cell lung cancer (SIREN): a retrospective analysis of patients treated through an access program. *Ther Adv Med Oncol*. 13: 17588359211019675.  
Published
16. Bebb DG, Banerji S, Blais N, Desmeules P, Gill S, Grin A, Feilotter H, Hansen AR, Hyrcza M, Krzyzanowska M, Melosky B, Noujaim J, Purgina B, Ruether D, Simmons CE, Soulieres D, Torlakovic EE, Tsao MS. (2021). Canadian Consensus for Biomarker Testing and Treatment of TRK Fusion Cancer in Adults. *Current Oncol*. 28(1): 523-548.  
Published

17. Cheema PK, Gomes M, Banerji S, Joubert P, Leighl NB, Melosky B, Sheffield BS, Stockley T, Ionescu DN. (2020). Consensus recommendations for optimizing biomarker testing to identify and treat advanced EGFR-mutated non-small-cell lung cancer. *Current Oncol.* 27(6): 321-329.  
Published
18. Rittberg R, Banerji S, Green S, Qing GF, Dawe, DE. (2020). Immunotherapy Benefit in a Patient with Non-Small Cell Lung Cancer and a Rare *BRAF* Mutation.. *Cureus.* 12(10): e11224.  
Published
19. Oberoi S, Yang JY, Woodgate RL, Niraula S, Banerji S, Israels SJ, Altman G, Beattie S, Rabbani R, Askin N, Gupta A, Sung LL, Abou-Setta, AM, Zarychanski R. (2020). Association of Mindfulness-Based Interventions With Anxiety Severity in Adults With Cancer A Systematic Review and Meta-analysis. *JAMA Netw Open.* 3(8): e2012598.  
Published
20. Meyers D and Banerji S. (2020). Biomarkers of immune checkpoint inhibitor efficacy in cancer. *Current Oncol.* 27(Suppl 2): s106-s114.  
Published
21. Melosky B, Banerji S, Blais N, Chu Q, Juergens R, Leighl NB, Liu G, Cheema P. (2020). Canadian consensus: a new systemic treatment algorithm for advanced *EGFR*-mutated non-small-cell lung cancer.. *Current Oncol.* 27(2): e146-e155.  
Published
22. 19. Rittberg R, Green S, Aquin T, Bucher O, Banerji S, Dawe, DE. (2020). Effect of Hospitalization During First Chemotherapy and Performance Status on Small-cell Lung Cancer Outcomes. *Clin Lung Cancer.* 21(5): e388-e404.  
Published
23. Bebb DG, Agulnik J, Albadine R, Banerji S, Bigras G, Butts C, Couture C, Cutz JC, Desmeules P, Ionescu DN, Leighl NB, Melosky B, Morzycki W, Rashid-Kolvear F, Lab C, Sekhon HS, Smith AC, Stockley TL, Torlakovic E, Xu Z, Tsao MS. (2019). Crizotinib inhibition of *ROS1*-positive tumours in advanced non-small-cell lung cancer: a Canadian perspective.. *Current oncology (Toronto, Ont.).* 26(4): e551-e557.  
Published  
Refereed?: Yes, Open Access?: Yes
- [24.](#) Yip S, Christofides A, Banerji S, Downes MR, Izevbaye I, Lo B, MacMillan A, McCuaig J, Stockley T, Yousef GM, Spatz A. (2019). A Canadian guideline on the use of next-generation sequencing in oncology. *Curr Oncol.* 26(2): 241-254. , Open Access?: Yes
- [25.](#) Laurie SA, Banerji S, Blais N, Brule S, Cheema PK, Cheung P, Daaboul N, Hao D, Hirsh V, Juergens R, Laskin J, Leighl N, MacRae R, Nicholas G, Roberge D, Rothenstein J, Stewart DJ, Tsao MS. (2019). Canadian consensus: oligoprogressive, pseudoprogressive, and oligometastatic non-small-cell lung cancer. *Curr Oncol.* 26(1): 81-93.  
Published, Open Access?: Yes
26. Bebb DG, Agulnik J, Albadine R, Banerji S, Bigras G, Butts C, Couture C, Cutz JC, Desmeules P, Ionescu DN, Leighl NB, Melosky B, Morzycki W, Rashid-Kolvear F, Lab C, Sekhon HS, Smith AC, Stockley TL, Torlakovic E, Xu Z, Tsao MS. (2019). Crizotinib inhibition of *ROS1*-positive tumours in advanced non-small-cell lung cancer: a Canadian perspective.. *Current Oncol.* 26(4): 551-557.
27. 25. MacArthur IR, McInnes CW, Dalke KR, Akra M, Banerji S, Buchel EW, Hayakawa TJ. (2019). Patient Reported Outcomes Following Lower Extremity Soft Tissue Sarcoma Resection with Microsurgical Preservation of Ambulation. *J Reconstr Microsurg.* 35(3): 168-175.  
Published
- [28.](#) Meyers DE, Bryan PM, Banerji S, Morris DG. (2018). Targeting the PD-1/PD-L1 axis for the treatment of non-small-cell lung cancer. *Curr Oncol.* 25(4): 324-334.  
Published, Open Access?: Yes

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Published, Open Access?: No
30. Grocholski S, Banerji S, Qing G, Dawe DE. (2018). Benefit of crizotinib in a lung cancer patient with discordant ALK testing results. *Cancer Treat Res Commun.* 15: 13-16.  
Published, Open Access?: No
31. Grant L, Banerji S, Murphy L, Dawe DE, Harlos C, Myal Y, Nugent Z, Blanchard A, Penner CR, Qing G, Pitz MW. (2018). Androgen Receptor and Ki67 Expression and Survival Outcomes in Non-small Cell Lung Cancer. *Hormones & cancer.* 9(4): 288-294.  
Published
32. Green S, Dawe DE, Banerji S. (2017). Immune Signatures of Non-Small Cell Lung Cancer. *Journal of thoracic oncology : official publication of the International Association for the Study of Lung Cancer.* 12(6): 913-915.  
Published
33. Xu W Jia G Cai N Huang S Davie JR Pitz M Banerji S Murphy L. (2017). A 16 Yin Yang gene expression ratio signature for ER+/node- breast cancer. *Int J Cancer.* 140(6): 1413-1424.  
Published  
Refereed?: Yes
34. Ahmed N Bezabeh T Ijare OB Myers R Alomran R Aliani M Nugent Z Banerji S Kim J Qing G Bshouty Z. (2016). Metabolic Signatures of Lung Cancer in Sputum and Exhaled Breath Condensate Detected by 1H Magnetic Resonance Spectroscopy: A Feasibility Study. *Magn Reson Insights.* 9: 29-35.  
Published  
Refereed?: No
35. Melosky B Agulnik J Albadine R Banerji S Bebb DG Bethune D Blais N Butts C Cheema P Cheung P Cohen V Deschenes J Ionescu D Juergens R Kamel-Reid S Laurie SA Liu G Morzycki W Tsao M-S Xu Z Hirsh V. (2016). Canadian Consensus: Inhibition of Anaplastic Lymphoma Kinase (ALK) positive tumours in advanced non-small cell lung cancer (NSCLC). *Curr Oncology.* 23(3): 196-200.  
Published
36. Xu W, Jia G, Davie JR, Murphy L, Kratzke R, Banerji S. (2016). A 10-gene Yin Yang Expression Ratio Signature for Stage IA and IB non-small cell lung cancer. *J Thorac Oncol.* 11(12): 2150-2160.  
Published  
Refereed?: Yes

## Conference Publications

1. M Gomes, D Huntsman, J Spaans, T Asmis, R Miller, H Sekhon, S Banerji, M Duciaume, N Andrews Wright, G Goss. Histological and Genomic Characterization of Lung Cancers in the Inuit Population of the Eastern Canadian Arctic. Canadian Cancer Research Conference, Canada  
Poster
2. C Peltier, E McMillan-Ward, E Henson, N Chatterjee, D Hewitt, D Desautels, M Bourrier, C Mutz, I Gehrke, E Bouchard, H Kovar, S Banerji, S Gibson, S Israels, V Banerji. What the Hole?! Structural effects of FK866 in Primary CLL B-Cells. Canadian Cancer Research Conference, Canada  
Poster
3. W Liang, C McFall, K Morydz, S Banerji. Utilization of molecular testing for lung cancer in Manitoba 2014-2016. Internal Medicine Research Day, Winnipeg, Canada  
Abstract

4. E Gagne, R Miller, L Prentice, P Kaurah, A Parker, A Lapuk , P Franchini, K Parsa, S Shah, S Aparicio, S Banerji, D Huntsman. National Accessprogram for multi-gene somatic mutation testing of cancer: initial results. Canadian Cancer Research Conference, Canada  
Poster
5. R Juergens, Q Chu, J Rothenstein, F De Angelis, S Banerji, K Margquis, D Saucluc, P Begin, N Finn, V Hirsch, A Faghih, J Yun, A Li, A Acevedo, L Musallam, P Cheema. CHECKMATE 169:Safety/Efficacy of nivolumab in Canadian pretreated advanced NSCLC (includingelderly and PS2) patients. World Lung Cancer Conference 2017, Japan  
Poster
6. J. Kim, M. Abdalmassih, S. Banerji, D. Dawe, G. Qing, L. Tan, S. Srinathan, B. Kidane, H. Unruh, G. Buduhan, M. Aliani. Discrimination ofNSCLC Cases from Cancer-Free Controls and Adenocarcinoma from Squamous CellCarcinoma Using Plasma Metabolomics Profiles. World Lung Cancer Conference, Austria  
Poster
7. W Xu, G Jia, JR Davie, L Murphy, R Kratzke, S Banerji. A Ten Yin Yang GeneExpression Ratio Signature for Stage IA and IB of Lung Cancer. IARC 50th Anniversary Conference,  
Poster
8. C Peltier, D Desautels, M Bourrier, V Banerji, S Banerji. Effect of FK866,NAMPT inhibitor, on small cell lung cancer cell lines.Canadian Cancer Research Association Meeting,  
Poster
9. D Desautels, C. Peltier, M Bourrier, V Banerji, S Banerji. Effect of FK866,NAMPT inhibitor, on small cell lung cancer cell lines. CAMO Annual Meeting,  
Poster
10. D Meyers, A Poepl, V Bhat, C Peltier, A Raouf, S Banerji. Using a cell surfaceantibody screen to identify biomarkers of drug resistance in small cell lungcancer. World Lung Cancer Conference,  
Paper
11. H Greulich, B Kaplan, P Mertins, T Chen, K Tanaka, C Yun, M Imielinski, S Banerji, MS Lawrence, S Walker, W Winckler, G Getz, D Frank, M Eck, JD Jaffe, SA Carr, K Wong, M Meyerson.Oncogenicextracellular domain mutations of ERBB2 in cancer.American Association of Cancer Research Annual Meeting,  
Abstract
12. M Imielinski, B Hernandez, M Lawrence, E Hodis, G Kryukov, P Stojanov, A Sivachenko, K Cibulskis, C Sougnez, D Auclair, K Ardlie, S Banerji, P Hammerman, RK Thomas, S Gabriel, E Lander, G Getz, M Meyerson.Uncovering signals of somatic selection through whole exome and whole genome sequencing of lungadenocarcinoma. American Association of Cancer Research Annual Meeting,  
Abstract
13. S Banerji, J Barretina, A Crago, A Frederick, M Okamoto, B Weir, G Cowley, D Root, M Ladanyi, S Singer, and M Meyerson. High-throughput functional profiling of dedifferentiatedliposarcoma cell lines.American Association of Cancer Research Annual Meeting,  
Abstract
14. S Banerji, A Crago, A Frederick, J Barretina, and M Meyerson. High-throughput functional profiling of dedifferentiated liposarcoma cell lines. Canadian Cancer Research Conference,  
Abstract

## Intellectual Property

### Patents

1. Akt inhibitors for treating cancer expressing the MAGI3-AKT3 fusion gene. United States of America. PCT/US2012/043609. 2012/06/21.  
Patent Status: Granted/Issued

### Presentations

1. (2018). Precision medicine through genomics in Manitoba. Genome Canada Science and Industry Advisory Committee, Canada  
Main Audience: Decision Maker  
Invited?: Yes, Keynote?: No
2. (2018). Incorporating precision medicine for a cancer care in Manitoba. Research Institute Seminar Series, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
3. (2018). Predictive biomarkers related to targeted therapies and immunotherapies. Opening Plenary: Canadian Association of Pathologists - Association canadienne des pathologistes, Canada  
Main Audience: Knowledge User  
Invited?: Yes, Keynote?: Yes
4. (2012). Sequence analysis of mutations and translocations across breast cancer subtypes. Instituto Nacional de Medicina Genomica (INMEGEN) Breast Cancer Symposium, Mexico  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
5. (2012). Cancer genomics: a clinical perspective. The 3rd Institute for Refractory Cancer Research (IRCR) International Symposium, Korea, South  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No

## Knowledge and Technology Translation

2019/8 - 2019/8	Speaker, Citizen Engagement Activity Description: Manitoba prostate cancer patient support group talk on promise and pitfalls of personalized treatments
2013/11 - 2013/11	Speaker, Citizen Engagement Activity Description: Manitoba Lung Association Public Forum – “The evolution of lung cancer” - educate the general public about lung cancer, risk factors, diagnosis, and treatment.

## Student/Postdoctoral Supervision

### Bachelor's Equivalent [n=2]

2016/5 - 2017/8	Rami Elzayat, University of Manitoba
Principal Supervisor	Thesis/Project Title: Biomarkers of drug resistance in small cell lung cancer Present Position: Medical Student University of Manitoba

2014/5 - 2014/8 Pooja Sharma, The University of Manitoba  
Principal Supervisor Thesis/Project Title: Assessing clinical trial eligibility for patients with lung cancer in Manitoba  
Present Position: Private Practice Physician

**Bachelor's Honours [n=2]**

2018/5 - 2019/8 Shivani Mathur, The University of Manitoba  
Co-Supervisor Thesis/Project Title: The impact of frailty on clinical outcomes for stage IV non-small cell lung cancer patients receiving chemotherapy  
Present Position: BSc Med Student

2013/5 - 2014/8 Daniel Meyers, Queen's University, Canada  
Principal Supervisor Thesis/Project Title: Cell surface markers of drug resistance in small cell lung cancer  
Present Position: Medical Student University of Calgary

**Master's Thesis [n=1]**

2014/1 - 2017/7 MinQi Xu, The University of Manitoba  
Co-Supervisor Thesis/Project Title: Next-generation sequencing for mutation detection in non-small cell lung cancer  
Present Position: Pathologist Resident Queen's University

**Post-doctorate [n=1]**

2017/7 - 2018/6 Susan Green, University of Manitoba  
Academic Advisor Thesis/Project Title: Thoracic Oncology Clinical Fellowship  
Present Position: Medical Oncologist CancerCare Manitoba

**Date Submitted:** 2023-09-14 13:20:09

**Confirmation Number:** 1657591

**Template:** CIHR Biosketch

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## **Dr. Ayesha Saleem**

Correspondence language: English

Sex: Female

Date of Birth: 12/24

Canadian Residency Status: Canadian Citizen

Country of Citizenship: Canada

## **Contact Information**

The primary information is denoted by (\*)

### **Address**

#### Primary Affiliation (\*)

Faculty of Kinesiology and Recreation  
Management  
120 Frank Kennedy Centre  
University of Manitoba  
Winnipeg Manitoba R3T 2N2  
Canada

#### Primary Affiliation

Children's Hospital Research Institute of Manitoba  
John Buhler Research Centre (JBRC)  
600A – 715 McDermot Avenue  
Winnipeg Manitoba R3E 3P4  
Canada

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Work	asaleem@chrime.ca

### **Website**

Personal	www.mitochondria.ca
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Protected when completed

## Dr. Ayesha Saleem

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### Degrees

2012/10 - 2016/8	Post-doctorate, Post-doctoral Fellowship, McMaster University Degree Status: Completed
2007/9 - 2013/8	Doctorate, Doctorate of Philosophy, York University Degree Status: Completed
2005/9 - 2008/4	Master's Thesis, Masters of Science, York University Degree Status: Completed
2001/9 - 2005/6	Bachelor's Honours, Bachelor's of Science, Honours, York University Degree Status: Completed

### Credentials

2021/1	Best Practices in Research Management Workshop Series by the Vice President (Research and International) Office, The University of Manitoba
2020/7	Manitoba Indigenous Cultural Safety Training (MICST), Winnipeg Regional Health Authority
2020/6	Management Fundamentals Program Certificate, The University of Manitoba
2019/9	Core Competency Module for Sex and Gender in Biomedical Research, Canadian Institutes of Health Research
2017/6	Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics (TCPS 2: CORE), Humber College

### Recognitions

2023/4	Kerry Bittner Communications Award Manitoba Medical Service Foundation (MMSF)
2022/3	Outstanding Team Presentation Award Japanese Agency for Medical Research and Development (AMED) & New York Academy of Sciences (NYAS)
2021/8	Honorable mention – Reimagine Biomedical Research for a Healthier Future Essay Challenge Health Research Alliance (HRA) and the Public Library of Science (PLOS)
2021/7	2020 Merit Award – Combination of Teaching, Service, and/or Research, Scholarly Work & Other Creative Activities The University of Manitoba

2020/11 CBC Manitoba Future 40 - Class of 2020  
CBC Manitoba

## Employment

2023/7 Associate Professor (tenured)  
Kinesiology, Faculty of Kinesiology and Recreation Management, The University of Manitoba

2018/7 Research Scientist  
No department, University of Manitoba, Bannatyne Campus, Children's Hospital Research Institute of Manitoba

2022/3 - 2023/6 Associate Professor (tenure-track)  
Kinesiology, Faculty of Kinesiology and Recreation Management, The University of Manitoba

2018/7 - 2022/3 Assistant Professor (tenure-track)  
Kinesiology, Faculty of Kinesiology and Recreation Management, The University of Manitoba

2016/1 - 2018/4 Partial Load (part-time) Professor \*no research - teaching position only\*  
Biotechnology, School of Health Sciences, Humber College

2015/5 - 2015/12 Instructor - Clinical Research, Regulatory Affairs  
Clinical Research, and Regulatory Affairs, School of Health Sciences, Humber College

2005/9 - 2012/8 Teaching Assistant • 15 different positions held over the years  
Kinesiology and Health Science, Health, York University

2009/9 - 2012/6 Muscle Health Research Centre (MHRC) Coordinator  
York University

2006/1 - 2009/1 MCAT Instructor - Biology and Essay Writing  
Biology, N/A, Prep 101

## Affiliations

The primary affiliation is denoted by (\*)

(\*) 2019/1 Senior Member, International Society for Extracellular Vesicles (ISEV)

## Leaves of Absence and Impact on Research

2020/3 - 2020/12 Other Circumstances, The University of Manitoba  
**COVID-19.** I started as a PI in July 2018, hired trainees by May 2019 along with setting up my lab with the required infrastructure, supplies & materials. Less than a year later, in Mar 2020 we were completely shut down due to COVID-19. This complete shutdown lasted from Mar–July 2020. Mid-way through July, we were allowed to come back on a shift basis at 50% occupancy. This 50% occupancy continued till Oct 2020. During the second wave in Winnipeg & given our infection rates were the highest in Canada, I voluntarily shut my lab down again (Oct-Dec 2020) & let my trainees work from home. Effectively, my research program lost ~8 solid months of full-time research, at a time when my lab was just about to find its stride. This slowed down my lab's research productivity. Despite this, I generated 4 original research papers & 2 review papers, & 1 book chapter from my lab, written by my HQP where I am corresponding author, and 4 co-author papers. We also have 5 manuscripts in prep.

## Research Funding History

### Awarded [n=11]

2022/4 - 2027/3 Principal Investigator	Effect of exercise on skeletal muscle-derived extracellular vesicles and regulation of mitochondrial biogenesis  <b>Funding Sources:</b> Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grant Total Funding - 167,500 Funding Competitive?: Yes
2023/6 - 2025/5 Co-investigator	Air Pollution Exposure Facility (AirSaFE)  <b>Funding Sources:</b> Canada Foundation for Innovation (CFI) Innovation Fund Total Funding - 6,246,480 Funding Competitive?: Yes  Co-applicant : Neeloffer Mookherjee;  Co-investigator : Christopher Carlsten; Hani El-Gabalawy; Madjid Borouk; Meaghan Jones; Qiang Zhang; Richard Keijzer;  Principal Applicant : Andrew Halayko
2023/2 - 2024/7 Principal Investigator	Fetal extracellular vesicles in maternal blood  <b>Funding Sources:</b> University of Manitoba University Research Grants Program (URGP) Total Funding - 10,000 Funding Competitive?: Yes
2023/4 - 2024/3 Principal Investigator	Uptake of fetal extracellular vesicles (EVs) across the placental barrier  <b>Funding Sources:</b> Manitoba Medical Service Foundation (MMSF) Operating Grant Total Funding - 35,000 Funding Competitive?: Yes
2022/3 - 2023/12 Principal Investigator	Biological action and proteomic cargo of chronic contractile activity-derived extracellular vesicles from skeletal muscle  <b>Funding Sources:</b> Diabetes Research Envisioned and Accomplished in Manitoba (DREAM) Catalyst Grant Total Funding - 20,119 Funding Competitive?: Yes
2018/7 - 2023/6 Principal Investigator	Extracellular vesicles in metabolic disease-skeletal muscle communication  <b>Funding Sources:</b> University of Manitoba Research Start-up Funds Total Funding - 150,000 Funding Competitive?: No
2019/7 - 2023/6 Principal Investigator	Extracellular Vesicles in Prenatal Fetal-Maternal Communication  <b>Funding Sources:</b>

Children's Hospital Research Institute of Manitoba  
 Operating Grant  
 Total Funding - 60,000  
 Funding Competitive?: Yes  
 Co-applicant : Richard Wagner

2021/6 - 2023/5  
 Principal Investigator Extracellular vesicles in health, disease, and DOHaD

**Funding Sources:**  
 Canada Foundation for Innovation (CFI)  
 John R. Evans Leaders Fund (JELF)  
 Total Funding - 471,000  
 Funding Competitive?: Yes

2022/6 - 2023/5  
 Co-investigator Rescuing cellular alterations in aged pancreatic beta cells to restore insulin-secretion function for healthy longevity (\*\*Funds received as co-PI: USD \$5000)

**Funding Sources:**  
 Japanese Agency for Medical Research and Development (AMED)  
 Interstellar Alumni Funding Program  
 Total Funding - 20,000  
 Funding Competitive?: Yes

Principal Investigator : Adrian Teo Kee Keong; Ayesha Saleem; Paola Vera-Licona; Shintaro Yamada

2019/3 - 2023/3  
 Principal Investigator Reversing frailty through transmission of epigenetic age by extracellular vesicles (\*\*Funds received as co-PI: \$109,00)

**Funding Sources:**  
 Social Sciences and Humanities Research Council of Canada (SSHRC)  
 New Frontiers Research Fund - Exploration  
 Total Funding - 273,310  
 Funding Competitive?: Yes

Co-investigator : Ayesha Saleem;

Collaborator : Todd Duhamel;

Principal Applicant : Meaghan Jones

2019/9 - 2023/3  
 Principal Investigator Extracellular vesicles and skeletal muscle communication

**Funding Sources:**  
 Research Manitoba  
 New Investigator Operating Grant  
 Total Funding - 130,000  
 Funding Competitive?: Yes

### Completed [n=9]

2020/12 - 2023/3  
 Co-applicant Manitoba Medical Service Foundation (MMSF) Operating Grant (\*\*Funds received as co-A: 0)

**Funding Sources:**  
 Manitoba Medical Service Foundation (MMSF)  
 Operating Grant  
 Total Funding - 25,000  
 Funding Competitive?: Yes  
 Co-applicant : Ayesha Saleem;

2020/4 - 2023/3 Co-applicant	<p>Principal Investigator : Peter Thompson</p> <p>3D bioprinting of stem-cell-derived muscle tissue: a physiologically relevant platform for biomedical research, pre-clinical screening and clinical diagnostics (**Funds received as co-A: 0)</p> <p><b>Funding Sources:</b>            Canadian Institutes of Health Research (CIHR)            Operating Grant : Collaborative Health Research Projects (CHRP, NSERC Partnered)            Total Funding - 543,440            Funding Competitive?: Yes</p> <p>Co-applicant : Andrew Halayko; Ayesha Saleem;            Collaborator : Cheryl Rockman-Greenberg; Sanjiv Dhingra;            Principal Applicant : Adrian West; Joe Gordon; Vernon Dolinsky</p>
2019/11 - 2022/12 Principal Investigator	<p>Extracellular vesicles (EVs) as predictors of exercise response in obese youth</p> <p><b>Funding Sources:</b>            Diabetes Research Envisioned and Accomplished in Manitoba (DREAM)            Catalyst Grant            Total Funding - 21,050            Funding Competitive?: Yes</p> <p>Co-investigator : Martin Sénéchal</p>
2019/12 - 2022/6 Principal Investigator	<p>Understanding Baby Talk – deciphering fetal-maternal cross-communication</p> <p><b>Funding Sources:</b>            Children's Hospital Foundation of Manitoba Inc. (Winnipeg)            Innovators Fund            Total Funding - 50,000            Funding Competitive?: Yes</p>
2020/4 - 2022/3 Co-applicant	<p>3D Bioprinting of Skeletal Muscle to Study Myogenesis and Muscle Metabolism (**Funds received as co-A: 0)</p> <p><b>Funding Sources:</b>            University of Manitoba            University Collaborative Research Program (UCRP)            Total Funding - 25,000            Funding Competitive?: Yes</p> <p>Co-applicant : Ayesha Saleem; Joe Gordon;            Principal Applicant : Adrian West</p>
2020/10 - 2021/12 Co-investigator	<p>Extracellular vesicle (EV)-mediated rescue of immune dysfunction and cognitive decline in aging (**Funds received as co-PI: US \$16,000)</p> <p><b>Funding Sources:</b>            US National Academy of Medicine (NAM)            Healthy Longevity Global Grand Challenge Catalyst Award            Total Funding - 50,000            Funding Competitive?: Yes</p> <p>Co-investigator : Ayesha Saleem; Noga Ron-Harel;            Principal Applicant : Hiroshi Yamada</p>
2020/5 - 2021/3 Co-investigator	<p>Promote healthy aging by targeting immune dysfunction in aged organisms through extracellular vesicles (**Funds received as co-PI: US \$7000)</p>

**Funding Sources:**

Japanese Agency for Medical Research and Development (AMED)  
 Interstellar Initiative  
 Total Funding - 23,500  
 Funding Competitive?: Yes

Co-investigator : Ayesha Saleem; Noga Ron-Harel;

Principal Applicant : Hiroshi Yamada

2019/10 - 2020/3  
 Co-investigator

Extracellular vesicles (EVs) as regulators of T cell metabolism in aging (\*\*Funds received as co-PI: US \$7500)

**Funding Sources:**

Japanese Agency for Medical Research and Development (AMED)  
 Interstellar Initiative  
 Total Funding - 27,500  
 Funding Competitive?: Yes

Co-investigator : Ayesha Saleem; Noga Ron-Harel;

Principal Applicant : Hiroshi Yamada

2019/1 - 2020/1

Principal Investigator

Establishing an extracellular vesicle isolation protocol from cells in culture

**Funding Sources:**

University of Manitoba  
 University Research Grants Program (URGP)  
 Total Funding - 7,500  
 Funding Competitive?: Yes

**Under Review [n=2]**

2023/12 - 2025/11

Principal Investigator

Rescuing DNA damage and senescence-related alterations in aged pancreatic beta cells with young extracellular vesicles

**Funding Sources:**

National Institutes of Health (NIH) (USA)  
 R21 PA-20-195  
 Total Funding - 275,000  
 Funding Competitive?: Yes

Co-investigator : Shintaro Yamada;

Collaborator : Adrian Teo;

Principal Investigator : Paola Vera-Licona

2023/12 - 2025/11

Principal Investigator

Breastmilk Extracellular Vesicles as a Novel Therapeutic Intervention for Infant Asthma

**Funding Sources:**

National Institutes of Health (NIH) (USA)  
 R21 PAR20-299  
 Total Funding - 275,000  
 Funding Competitive?: Yes

## Publications

### Journal Articles

1. Field JT, Chapman D, Ghavami S, West AR, SALEEM A, Kindrachuk J, Triggs-Raine B, Gordon JW. (2023). The mitophagy receptor Nix coordinates nuclear calcium signaling to modulate the muscle phenotype. *BioRxiv*. 2023.03.18.532760: x.  
Submitted
2. Obi PO\*, Seif S\*, Bydak B\*, Pierdoná TM\*, Turner-Brannen E, West AR, Labouta HI, Gordon JW and SALEEM A¶. \*my trainees, ¶corresponding author. (2022). **Skeletal muscle-derived extracellular vesicles are altered with chronic contractile activity**. *BioRxiv*. BIORXIV/2022/481852: 1-25.  
Submitted  
Refereed?: Yes, Open Access?: Yes
3. Jahangiri B, Saei AK, Obi PO\*, Asghari N, Lorzadeh S, Hekmatirad S, Rahmati M, Velayatipour F, Asghari MH, SALEEM A¶ and Moosavi MA¶ \*my trainees, ¶corresponding authors. (2022). **Exosomes, autophagy and ER stress pathways in human diseases: cross-regulation and therapeutic approaches**. *Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease*. 1868(10): 166584.  
Published  
Refereed?: Yes
4. Bydak B\*, Pierdoná TM\*, Seif S\*, Sidhom K\*, Obi PO\*, Labouta HI, Gordon JW and SALEEM A¶. \*my trainees, ¶corresponding author. (2022). **Characterizing Extracellular Vesicles and Particles Derived from Skeletal Muscle Myoblasts and Myotubes and the Effect of Acute Contractile Activity**. *Membranes*. 12(5): 464.  
Published  
Refereed?: Yes, Open Access?: Yes
5. Rezvani M, Aiken J and SALEEM A. (2022). **Effect of a Sugar-Free Branched Chain Amino Acid-Containing Sports Drink on Acute High Intensity Anaerobic Performance**. *Journal of Innovation in Polytechnic Education*. 4(1): 68-80.  
Published  
Refereed?: Yes, Open Access?: Yes
6. Pierdoná TM\*, Martin A\*, Obi P)\*, Seif S\*, Bydak B\*, Labouta HI, Eadie AL, Brunt KR, McGavock JM, Sénéchal M and SALEEM A¶. \*my trainees, ¶corresponding author. (2022). **Extracellular Vesicles as Predictors of Individual Response to Exercise Training in Youth Living with Obesity**. *Frontiers in Bioscience-Landmark*. 27(5): 1-23.  
Published  
Refereed?: Yes, Open Access?: Yes
7. Martens MD, Seshadri N, Nguyen L, Chapman D, Hensen ES, Xiang B, Mendoza A, Rattan S, Gibson SB, SALEEM A, Hatch GM, Doucette CA, Karch JM, Dolinsky VW, Dixon IM, West AR, Rampitsch C, and Gordon JW. (2021). **Misoprostol Treatment Prevents Hypoxia-Induced Cardiac Dysfunction Through a 14-3-3 and PKA regulatory motif on Bnip3**. *Cell Death and Disease*. 12: 1-16.  
Published  
Refereed?: Yes, Open Access?: Yes
8. Reyes SM, Miliku K, Chan D, Brockway M, Turner S, Raimondi C, Kearns K, SALEEM A, Kelly LE, Nickel N, and Azad MB. (2021). **Messaging and methodological considerations when researching breastfeeding and obesity**. *Eur J Clin Nutr*. -: x-x.  
Published  
Refereed?: Yes, Open Access?: No

9. Obi PO\*, Kent JE\*, Jeyaraman MM, Askin A, Pierdoná TM\*, Halayko AJ and SALEEM A¶. \*my trainees ¶corresponding author. (2021). **The Therapeutic Effect of Extracellular Vesicles on Asthma in Pre-Clinical Models: A Systematic Review Protocol**. J Respir. 1(1): 84-95.  
Published  
Refereed?: Yes, Open Access?: Yes
10. Sidhom K\*†, Obi PO\*† and SALEEM A¶. \*my trainees, †co-first authors ¶corresponding author. (2020). **A review of exosomal isolation methods: is size exclusion chromatography the best option?** . Int J Mol Sci. 21(18): 6466.  
Published  
Refereed?: Yes, Open Access?: Yes
11. Blakely K, Mero P, Arnold R, SALEEM A, Misquitta C, Kasimer D, Kumar S, Uetrecht A, Brown KA, Datti A, Hood DA, Kim P, and Moffat J. (2019). **Cell cycle regulation of mitochondrial protein import revealed by genome-scale pooled bimolecular fluorescence complementation screening**. BioRxiv. 770669: x-x.  
Submitted  
Refereed?: No, Open Access?: Yes
12. Nazli A†, Safdar A†, SALEEM A, Akhtar M, Brady LI, Schwartzentruber J, FORGE Canada Consortium, and Tarnopolsky MA. †co-first authors. (2017). **A mutation in the TMEM65 gene results in mitochondrial myopathy with severe neurological manifestations**. Eur J Hum Genet. 25(6): 744-751.  
Published  
Refereed?: Yes
13. Safdar A, Annis S, Kraytsberg Y, Laverack C, SALEEM A, Popadin K, Woods DC, Tilly JL and Khrapko K. (2016). **Amelioration of premature aging in mtDNA mutator mouse by exercise: the interplay of oxidative stress, PGC-1α, p53 and DNA damage. A Hypothesis**. Curr Opin Genet Dev. 38: 127-132.  
Published  
Refereed?: Yes
14. Safdar A, SALEEM A, and Tarnopolsky MA. (2016). **The potential of endurance exercise-derived exosomes to treat metabolic diseases**. Nat Rev Endocrinol. 12(9): 504-17.  
Published  
Refereed?: Yes, Open Access?: No

## Book Chapters

1. Obi P\*, Bydak B\*, Safdar A and SALEEM A¶. \*my trainees ¶corresponding author. (2020). Extracellular Vesicles and Circulating miRNAs – Exercise-induced Mitigation of Obesity and Associated Metabolic Diseases. Edited by Tappia, Dhalla and Ramjiawan. Pathophysiology of Obesity-induced Health Complications in Advances in Biochemistry and Health. (19): 59-80.  
Published, Springer International Publishing, Canada
2. Safdar A†, Annis S†, Biala E, SALEEM A, Li H, Gandhi P, Castaneda-Sceppa C, Tilly JL, Woods DC, Tarnopolsky MA, and Khrapko K. †co-first authors. (2018). Friend or Foe: can mitochondrial toxins lead to similar benefits as exercise. Yvonne Will and James A. Dykens. Mitochondrial Dysfunction Caused by Drugs and Environmental Toxicants. First(II): 475-485.  
Published, John Wiley & Sons, United States of America

## Conference Publications

1. Bydak B§, Yan M§, Obi PO§, Souza TFG§, Ching C, Teo AKK, and SALEEM A†. §my trainees †corresponding author. Replicative senescence in pancreatic beta cells increases extracellular vesicle release. 11th Annual Diabetes Research Symposium (DREAM), Nov 2022, Winnipeg, MB, Poster



2. Souza TFG\$, Martin A\$, Obi PO\$, Bydak B\$, Seif S\$, West AR, Gordon JW, and SALEEM A†. \$my trainees †corresponding author. Can chronic contractile activity-derived extracellular vesicles rescue mitochondrial dysfunction?. 11th Annual Diabetes Research Symposium (DREAM), Nov 2022, Winnipeg, MB, Poster
3. Seif S\$, Bydak B\$, Tse WH, Pierdoná TM\$, Souza TFG\$, Obi PO\$, Martin A\$, Vaghasiya J, Yang C, Halayko AJ, Azad A, and SALEEM A†. \$my trainees †corresponding author. Cellular uptake of breast milk-derived extracellular vesicles is higher in mothers with asthma in a transwell model of the gastrointestinal barrier. **\*Seif S. won 2 awards for this work: Bronze in Non-Trainee Competition + Gold in People's Choice Award.** 18th Annual Child Health Research Days (CHRD) Conference, Oct 2022, Winnipeg, MB, Poster
4. Bydak B\$, Yan M\$, Obi PO\$, Souza TFG\$, Ching C, Teo AKK and SALEEM A†. \$my trainees †corresponding author. Replicative senescence in pancreatic beta cells alters extracellular vesicle characteristics. 18th Annual Child Health Research Days (CHRD) Conference, Oct 2022, Winnipeg, MB, Poster
5. Souza TFG\$, Martin A\$, Obi PO\$, Bydak B\$, Seif S\$, West AR, Gordon JW, Rockman-Greenberg C, and SALEEM A†. \$my trainees †corresponding author. Potential of extracellular vesicles as biomarkers of mitochondrial dysfunction. 18th Annual Child Health Research Days (CHRD) Conference, Oct 2022, Winnipeg, MB, Poster
6. Obi PO\$, Mustafa MT\$, Bydak B\$, Souza TFG\$, Seif S\$, Turner-Brannen E, West AR, Gordon JW, and SALEEM A†. \$my trainees †corresponding author. The pro-apoptotic effect of chronic contractile activity-induced extracellular vesicles on Lewis Lung Carcinoma (LLC) cells. 18th Annual Child Health Research Days (CHRD) Conference, Oct 2022, Winnipeg, MB., Poster
7. Chadha S, Bydak B\*, Ducas J, Duhamel TA, SALEEM A and Jones MJ. \*my trainees. DNA methylation and epigenetic age acceleration are associated with increased frailty in postmenopausal women. 51st Canadian Association of Gerontology (CAG) Conference., Regina, Conference Date: 2022/10 Poster
8. Obi PO\*, Seif S\*, Bydak B\*, Pierdoná TM\*, Turner-Brannen E, West AR, Gordon JW, and SALEEM A¶. \*my trainees ¶corresponding author. Chronic contractile activity evokes release of skeletal muscle-extracellular vesicles that in turn increase mitochondrial biogenesis. **\*Obi PO was a finalist for the PhD poster presentation award.** 18th International Biochemistry of Exercise Conference (IBEC), Toronto, Conference Date: 2022/5 Poster
9. Souza TFG\*, Obi PO\*, Bydak B\*, Seif S\*, Rockman-Greenberg C, and SALEEM A¶. \*my trainees ¶corresponding author. Characterization of extracellular vesicles in patients with primary and secondary mitochondrial disease. 18th International Biochemistry of Exercise Conference (IBEC), Toronto, Conference Date: 2022/5 Poster
10. Bydak B\*, Chadha S, Seif S\*, Avery BJ\*, Turner-Brannen E, West AR, Gordon JW, Duhamel TA, Jones M, and SALEEM A¶. \*my trainees ¶corresponding author. Frailty and epigenetic age-dependent effects on extracellular vesicle-mediated regulation of senescence in skeletal muscle cells. 18th International Biochemistry of Exercise Conference (IBEC), Toronto, Conference Date: 2022/5 Poster

11. Field J, Chapman D, LeDuc R, Kindrachuk J, Ghavami S, SALEEM A, Triggs-Raine B and Gordon JW. Molecular regulation of mitophagy controls myostatin signaling and the muscle phenotype. EMBO Workshop in Muscle formation, maintenance, regeneration and pathology, Gouvieux, France  
Conference Date: 2022/4  
Abstract  
Refereed?: Yes, Invited?: No
12. Bydak B\*, Chadha S, Seif S\*, Avery BJ\*, Turner-Brannen E, Ducas J, West AR, Gordon JW, Duhamel TA, Jones M and SALEEM A¶. \*my trainees ¶corresponding author. Effect of frailty and epigenetic age on extracellular vesicles and cellular senescence. Inaugural Canadian Extracellular Vesicle Symposium (CEVS) [virtual conference due to COVID-19], Canada  
Conference Date: 2022/1  
Abstract  
Refereed?: Yes, Invited?: No
13. Bydak B\*, Chadha S, Seif S\*, Avery BJ\*, Turner-Brannen E, Ducas J, West AR, Gordon JW, Duhamel TA, Jones M and SALEEM A¶. \*my trainees ¶corresponding author. Extracellular vesicles transmit senescence in human skeletal muscle cells. **\*Bydak B won 3rd place in the Trainee Talks Competition during the DREAM symposium.** 10th Annual Diabetes Research Symposium (DREAM), University of Manitoba [virtual due to COVID-19], Winnipeg, Canada  
Conference Date: 2022/1  
Abstract  
Refereed?: Yes, Invited?: No
14. Obi PO\*, Seif S\*, Bydak B\*, Pierdoná TM\*, Turner-Brannen E, West AR, Gordon JW and SALEEM A¶. \*my trainees ¶corresponding author. Chronic exercise-induced skeletal muscle extracellular vesicles modulate metabolism in recipient muscle cells. Inaugural Canadian Extracellular Vesicle Symposium (CEVS) [virtual conference due to COVID-19], Canada  
Conference Date: 2022/1  
Abstract  
Refereed?: Yes, Invited?: No
15. Obi PO\*, Seif S\*, Bydak B\*, Pierdoná TM\*, Turner-Brannen E, West AR, Gordon JW and SALEEM A¶. \*my trainees ¶corresponding author. Chronic exercise modifies skeletal muscle-derived extracellular vesicles that in turn transmit exercise-associated metabolic adaptations in a cell-specific manner. 10th Annual Diabetes Research Symposium (DREAM), University of Manitoba [virtual due to COVID-19], Winnipeg, Canada  
Conference Date: 2022/1  
Abstract  
Refereed?: Yes, Invited?: No
16. Chadha S, Bydak B\*, Ducas J, Duhamel TA, SALEEM A and Jones M. \*my trainee. Epigenetic age acceleration can predict frailty in postmenopausal women. 17th Annual Child Health Research Days (CHRD) Conference (virtual conference due to COVID-19), Winnipeg, Canada  
Conference Date: 2021/10  
Abstract  
Refereed?: Yes, Invited?: No
17. Bydak B\*, Chadha S, Avery BJ, Ducas J, Jones M, Duhamel TA and SALEEM A¶. \*my trainee ¶corresponding author. Frailty status alters the biophysical composition of extracellular vesicles. 17th Annual Child Health Research Days (CHRD) Conference [virtual conference due to COVID-19], Winnipeg, Canada  
Conference Date: 2021/10  
Abstract  
Refereed?: Yes, Invited?: No

18. Obi PO\*, Seif S\*, Pierdoná TM\*, Bydak B\*, Turner-Brannen E, West AR, Gordon JW and SALEEM A¶. \*my trainees ¶corresponding author. Skeletal muscle extracellular vesicles are altered with chronic exercise and can transmit exercise-associated metabolic programming. 17th Annual Child Health Research Days (CHRD) Conference [virtual conference due to COVID-19], Winnipeg, Canada  
Conference Date: 2021/10  
Abstract  
Refereed?: Yes, Invited?: No
19. Bydak B\*, Chadha S, Pierdoná TM\*, Seif S\*, Obi PO\*, Ducas J, Jones M, Duhamel TA and SALEEM A¶. \*my trainees ¶corresponding author. Changes in Extracellular Vesicle Characteristics According to Frailty Status. Centre on Aging 38th Annual Spring Research Symposium, University of Manitoba [virtual due to COVID-19], Winnipeg, Canada  
Conference Date: 2021/5  
Abstract  
Refereed?: Yes, Invited?: No
20. Bydak B\*, Pierdoná TM\*, Seif S\*, Obi PO\*, Sidhom K\*, Gordon JW and SALEEM A¶. \*my trainees ¶corresponding author. The effects of differentiation and acute exercise on skeletal-muscle derived extracellular vesicles. **\*Bydak B won a MSc Abstract Award and was chosen to present his talk live.** 12th Annual Muscle Health Awareness Day (MHAD) [virtual due to COVID-19], Toronto, Canada  
Conference Date: 2021/5  
Abstract  
Refereed?: Yes, Invited?: No
21. Obi PO\*, Seif S\*, Pierdoná TM\*, Bydak B\*, Gordon JW and SALEEM A¶. \*my trainees ¶corresponding author. The effect of chronic exercise on skeletal muscle-derived extracellular vesicles. 12th Annual Muscle Health Awareness Day (MHAD) [virtual due to COVID-19], Toronto, Canada  
Conference Date: 2021/5  
Abstract  
Refereed?: Yes, Invited?: No
22. Chada S, Bydak B\*, Ducas J, Duhamel TA, SALEEM A and Jones M. \*my trainee. Epigenetic age acceleration can predict frailty in older women. Centre on Aging 38th Annual Spring Research Symposium, University of Manitoba [virtual due to COVID-19], Winnipeg, Canada  
Conference Date: 2021/5  
Abstract  
Refereed?: Yes, Invited?: No
23. Obi PO\*, Seif S\*, Davidson C\*, Bydak B\*, Pierdoná TM\*, Gordon JW and SALEEM A¶. \*my trainees ¶corresponding author. Skeletal muscle-derived extracellular vesicles (EVs) - uptake kinetics and effect of chronic exercise. 9th Annual Diabetes Research Symposium (DREAM), University of Manitoba [virtual due to COVID-19], Winnipeg, Canada  
Conference Date: 2020/11  
Abstract  
Refereed?: Yes, Invited?: No
24. Pierdoná TM\*, Martin A\*, Obi PO\*, Bydak B\*, Eadie A, Brunt K, McGavock JM, Sénéchal M and SALEEM A¶. \*my trainees ¶corresponding author. Large extracellular vesicles (EVs) are positively associated with the exercise responder phenotype in adolescents with obesity. 9th Annual Diabetes Research Symposium (DREAM), University of Manitoba [virtual due to COVID-19], Winnipeg, Canada  
Conference Date: 2020/11  
Abstract  
Refereed?: Yes, Invited?: No

25. Bydak B\*, Pierdoná TM\*, Sidhom K\*, Seif S\*, Obi PO\*, Gordon JW and SALEEM A¶. \*my trainees ¶corresponding author. Extracellular vesicle (EV) characteristics during skeletal muscle differentiation and acute exercise.16th Annual Child Health Research Days [virtual conference due to COVID-19], Winnipeg, Canada  
Conference Date: 2020/10  
Abstract  
Refereed?: Yes, Invited?: No
26. Pierdoná TM\*, Martin A\*, Obi PO\*, Seif S\*, Bydak B\*, Eadie A, Brunt K, McGavock JM, Sénéchal M and SALEEM A¶. \*my trainees ¶corresponding author. Extracellular vesicles (EVs) as predictors of individual response to exercise in obese youth.16th Annual Child Health Research Days [virtual conference due to COVID-19], Winnipeg, Canada  
Conference Date: 2020/10  
Abstract  
Refereed?: Yes, Invited?: No
27. Obi PO\*, Kent JE\*, Jeyaraman MM, Askin N, Pierdoná TM\*, Halayko AJ and SALEEM A¶. \*my trainees ¶corresponding author. A systematic review of the therapeutic effect of extracellular vesicles (EVs) on asthma in pre-clinical models.16th Annual Child Health Research Days [virtual conference due to COVID-19], Winnipeg, Canada  
Conference Date: 2020/10  
Abstract  
Refereed?: Yes, Invited?: No
28. Obi PO\*, Davidson C\*, Bydak B\*, Pierdoná TM\*, Seif S\*, Gordon JW and SALEEM A¶. \*my trainees ¶corresponding author. Extracellular vesicle uptake in skeletal muscle.Collaborating for Health and Wellness - Applied Health Sciences (AHS), University of Manitoba, Virtual Research Conference, Winnipeg, Canada  
Conference Date: 2020/10  
Poster  
Refereed?: Yes, Invited?: No
29. Pierdoná TM\*, Martin A\*, Obi P\*, Bydak B\*, Eadie A, Brunt K, McGavock J, Sénéchal M and SALEEM A¶. \*my trainees ¶corresponding author. Release of larger extracellular vesicles post-acute exercise is associated with the exercise responder phenotype in youth living with obesity.International Society for Extracellular Vesicles Annual Meeting [virtual conference due to COVID-19], Philadelphia, United States of America  
Conference Date: 2020/7  
Abstract  
Refereed?: Yes, Invited?: No
30. Pierdoná TM\*, Martin A\*, Obi P\*, Seif S\*, Bydak B\*, Eadie A, Brunt K, McGavock J, Sénéchal M and SALEEM A¶. \*my trainees ¶corresponding author. Using extracellular vesicles to predict individual response to exercise in obese youth.Muscle Health Awareness Day 11th Annual Meeting [virtual conference due to COVID-19], Toronto, Canada  
Conference Date: 2020/5  
Abstract  
Refereed?: Yes, Invited?: No
31. SALEEM A.Role of extracellular vesicles in mediating skeletal muscle loss during cancer cachexia.5th Canadian Cancer Research Conference, Ottawa, Canada  
Conference Date: 2019/11  
Poster  
Refereed?: Yes, Invited?: Yes

32. Pierdoná TM\*, Conn BE, Bydak B\*, Adegbesan O\*, Azad MB and SALEEM A¶. \*my trainees ¶corresponding author. Extracellular vesicles change in size and concentration in breast milk from mothers with asthma. 15th Annual Child Health Research Days., Winnipeg, Canada  
Conference Date: 2019/10  
Poster  
Refereed?: Yes, Invited?: No
33. Bydak B\*, Sidhom K\*, Pierdoná TM\*, Adegbesan O\*, Field J, Upreti T, Labouta H, Gordon JW, and SALEEM A¶. \*my trainees ¶corresponding author. Extracellular vesicle-mediated skeletal muscle cross-talk after an acute bout of exercise. **\*Bydak B won Silver Medal for MSc Poster Presentation.** 15th Annual Child Health Research Days., Winnipeg, Canada  
Conference Date: 2019/10  
Poster  
Refereed?: Yes, Invited?: No
34. SALEEM A, Safdar A, Khan MI, Azzopardi P, Rusiecki D, Saleem AB and Tarnopolsky MA. Restoration of dystrophin expression and motor function in mdx mouse model of Duchenne Muscular Dystrophy using exosome-based non-immunogenic genetic therapy. **\*SALEEM A won Neuromuscular Dis Fellowship (Elsevier) + President's Award-Best Presentation** . 21st International Congress of the World Muscle Society, Granada, Spain  
Conference Date: 2016/10  
Abstract  
Refereed?: Yes, Invited?: Yes
35. vanLieshout TL, Stouth DW, SALEEM A, Tarnopolsky MA, and Ljubicic V. Protein Arginine Methyl transferase Expression and Function in Skeletal Muscle During Conditions of Acute Exercise. Canadian Society for Exercise Physiology (CSEP) Annual General Meeting, Victoria, Canada  
Conference Date: 2016/10  
Poster  
Refereed?: Yes, Invited?: No

## Presentations

1. (2023). Skeletal muscle derived extracellular vesicles and metabolism as part of symposium entitled "Exercise EVs: a fast-paced introduction". EV Club talks <https://www.youtube.com/watch?v=oGolhS-vEXU>, United States of America  
Main Audience: Researcher  
Invited?: Yes, Keynote?: Yes
2. (2023). Extracellular vesicles and mitochondria – it takes two to tango. 2nd Annual Canadian EV Symposium (virtual) | January 26, 2023 (national) <https://www.canvesicle.com/>, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
3. (2023). Make the most out of your postdoctoral fellowship. International Society for Extracellular Vesicles (ISEV) 2023 Annual Meeting, United States of America  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
4. (2022). Skeletal muscle-derived extracellular vesicles and their effect on mitochondrial biogenesis in recipient cells. Muscle Health Awareness Day (MHAD13) – Pre-conference Symposium for the 18th International Biochemistry of Exercise (IBEC) meeting, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No

5. (2021). Extracellular vesicles and the regulation of metabolic capacity. NEP Seminar Series - Department of Nutrition and Exercise Physiology, University of Missouri | Sept 9, 2021, United States of America  
Main Audience: Researcher  
Invited?: Yes, Keynote?: Yes

## Knowledge and Technology Translation

- |                   |  |
|-------------------|--|
| 2018/11 - 2020/11 | <p>Discovery Day Mentor - Career Panellist, Community Engagement</p> <p>Activity Description: <b>Discovery Days in Health Sciences</b> are one-day events that give secondary school students (primarily Grade 11) who are interested in science the opportunity to explore a variety of career options in medicine and the health sciences. This event is hosted by <b>The Canadian Medical Hall of Fame</b> and the <b>Rady Faculty of Health Sciences, University of Manitoba</b>. A Discovery Day comprises a dynamic keynote lecture, interactive workshops and a career panel discussion. Students gain a clear picture of what it would be like to be a health professional by interacting with researchers, clinicians and educators in their real-life work setting.</p>  |
| 2019/1 - 2020/7   | <p>Online Lecture, Research Uptake Strategies</p> <p>Activity Description: <b>Saleem A.</b> Mitochondrial diseases: an update. <i>Henry Stewart Talks</i>. In press (2020). †<b>corresponding author</b></p>   |
| 2019/11 - 2019/11 | <p>Discovery Day Mentor - Lab Host, Community Engagement</p> <p>Activity Description: <b>Discovery Days in Health Sciences</b> are one-day events that give secondary school students (primarily Grade 11) who are interested in science the opportunity to explore a variety of career options in medicine and the health sciences. This event is hosted by <b>The Canadian Medical Hall of Fame</b> and the <b>Rady Faculty of Health Sciences, University of Manitoba</b>. A Discovery Day comprises a dynamic keynote lecture, interactive workshops and a career panel discussion. Students gain a clear picture of what it would be like to be a health professional by interacting with researchers, clinicians and educators in their real-life work setting. This year, CHRIM welcomed grade 11 and 12 students into Dr. Ayesha Saleem's lab for a workshop on Extracellular Vesicles: The cell's email system.</p> |
| 2019/11 - 2019/11 | <p>Speak to a Scientist, Community Engagement</p> <p>Activity Description: "The Children's Hospital Research Institute of Manitoba was invited to St. John Brebeuf's Grade 2 class as part of their social studies education. The students are currently learning about communities and its important components, which includes the different occupations that contribute to our society. Dr. Ayesha Saleem visited the class and presented her research which involves looking at how exercise affects children's health on a cellular level. She even brought strawberries and did an experiment with the class to show them how to extract strawberry DNA!"</p>  |
| 2019/5 - 2019/5   | <p>Mentor and lab host for visiting Indigenous high school students, Community Engagement</p> <p>Activity Description: Verna J. Kirkness Science and Engineering Education Program</p> <p>Students spent half a day in my lab doing hands-on research activities, and learning about ongoing research projects in the lab.</p>   |

## Student/Postdoctoral Supervision

### Bachelor's [n=2]

- 2022/5 - 2022/12  
Principal Supervisor Marvin Yan, McMaster University  
Thesis/Project Title: Summer 2022: BioTalent funded co-op student Fall 2022: Undergraduate Thesis student Thesis title: Replicative senescence in pancreatic beta cells and secreted extracellular vesicles  
Present Position: Undergraduate Thesis Student + Summer Co-op student (May-Dec 2022)
- 2019/11 - 2022/8  
Principal Supervisor Alexandria Martin, University of Manitoba  
Thesis/Project Title: Alexandria joined my lab as a PT student in 2019 from high school. She returned in summer before her undergrad in 2020, & again in 2021. Effect of breast milk-derived extracellular vesicles on epithelial cell function & 2) Extracellular vesicles in plasma from obese children after exercise. **Honours:** · Aug 2020 - Aug 2022: Youth Advisor, Youth Advisory Council, CIHR's Institute for Human Development, Child and Youth Health **Awards:** · Summer 2021 +2022: Undergraduate Research Award (URA, \$7000) x2  
Present Position: Undergraduate student year 3

### Bachelor's Equivalent [n=1]

- 2023/5 - 2024/8  
Principal Supervisor Tiana Tiede, University of Manitoba  
Thesis/Project Title: *Extracellular vesicles as vehicles for the increase in cancer cell dissemination associated with the inflammatory response during lung surgery*  
Present Position: BSc Medical Undergraduate Research Student

### Master's Thesis [n=1]

- 2019/5 - 2022/2  
Principal Supervisor Benjamin Bydak, University of Manitoba  
Thesis/Project Title: Reversing frailty through transmission of epigenetic age by extracellular vesicles **Scholarships & Awards:** · Jan 2022: DREAM, Trainee Presentation Award – rank 3rd · May 2021: MHRD, MSc Abstract Award (\$200) · Oct 2019 – CHRD, MSc Poster Competition – Silver award · Sept 2019 – FKRM Graduate Scholarship (\$5000)  
Present Position: Currently a Graduate (PhD) student in my lab

### Doctorate [n=2]

- 2022/1  
Principal Supervisor Benjamin Bydak, University of Manitoba  
Thesis/Project Title: Mechanisms of extracellular vesicle biogenesis and release.  
Present Position: Current graduate (PhD) Student in my lab
- 2019/9  
Principal Supervisor Patience Obi, University of Manitoba  
Thesis/Project Title: Effect of chronic exercise on extracellular vesicles and communication with cancer cells. **Scholarships won:** · Mar 2021: FKRM BIPOC Studentship (\$2000) · Sept 2020: International Graduate Student Entrance Scholarship (\$6177/year) · Sept 2019: University of Manitoba Graduate Fellowship (\$18K/year x 4 = \$72,000) · Sept 2019: International Graduate Student Entrance Scholarship (\$6177/year)  
Present Position: Current graduate (PhD) Student in my lab

**Post-doctorate [n=2]**

- 2022/1  
Principal Supervisor Tamiris de Fatima Goebel de Souza, University of Manitoba  
Thesis/Project Title: 1. Role of extracellular-vesicles in asthma development. 2. Extracellular-vesicle mediated communication in patients with mitochondrial disease.  
**Fellowships Won:** · 2022: Research Manitoba Postdoctoral Fellowship Award (\$44,100 x 1 year)  
Present Position: Current Postdoctoral Fellow in my lab
- 2019/7 - 2021/8  
Principal Supervisor Taiana Pierdoná Martins, University of Manitoba  
Thesis/Project Title: 1. Role of extracellular vesicles (EVs) in breast milk and asthma. 2. EVs as predictors of response to exercise training in children with obesity. **Fellowships won:** · Research Manitoba Postdoctoral Fellowship Award (\$44,000, Sept 2020 –Aug 2021) · Research Manitoba Postdoctoral Fellowship Award (\$44,000, Sept 2019 –Aug 2020)  
Present Position: Acquiring pharmacy certification

**Technician [n=2]**

- 2023/7  
Principal Supervisor Hashini Chandrasena, University of Winnipeg Collegiate  
Thesis/Project Title: *Measuring mitochondrial movement in C2C12 cells with extracellular vesicle treatment*  
Present Position: High school student (grade 10)
- 2020/1  
Principal Supervisor Samira Seif, University of Manitoba  
Thesis/Project Title: Extracellular vesicles (EV) in fetal-maternal communication, effect on mitochondrial motility and EV uptake.  
Present Position: Research Technician level 3