Dr. Scott James <u>Adams</u>

Correspondence language: English
Date of Birth: 2/07
Canadian Residency Status: Canadian Citizen
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The primary information is denoted by (*)

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Dr. Scott <u>Adams</u>

Degrees

2022/9 - 2024/6	Master's non-Thesis, Master of Education, University of Toronto Degree Status: Completed
2022/7 - 2023/6	Post-doctorate, Clinical Fellowship, Stanford University Degree Status: Completed
2021/9 - 2022/8	Post-doctorate, Research Fellowship, Harvard Medical School Degree Status: Completed
2017/7 - 2022/6	Post-doctorate, Residency in Diagnostic Radiology, University of Saskatchewan Degree Status: Completed
2017/5 - 2021/11	Doctorate, Doctor of Philosophy, University of Saskatchewan Degree Status: Completed
2013/8 - 2017/6	Doctorate, Doctor of Medicine, University of Saskatchewan Degree Status: Completed

Credentials

2022/7	Fellow, Royal College of Physicians and Surgeons of Canada
2022/6	Specialist Certification, Diagnostic Radiology, Royal College of Physicians and Surgeons of Canada
2022/1	Educational Certification, American Board of Artificial Intelligence in Medicine
2019/1	Licentiate of the Medical Council of Canada, Medical Council of Canada
2014/11	Licentiate of the Royal Conservatory of Music, Royal Conservatory of Music

Recognitions

2022/6	Governor General's Gold Medal University of Saskatchewan
2021/9	Canadian Institutes of Health Research Fellowship Canadian Institutes of Health Research
2020/7	Canadian Society for Clinical Investigation / Canadian Institutes of Health Research Resident Research Award Canadian Society for Clinical Investigation / Canadian Institutes of Health Research
2020/2	President's Award American Roentgen Ray Society

2018/5 - 2021/4	Vanier Canada Graduate Scholarship Canadian Institutes of Health Research

Employment

2023/7	Director of Research Virtual Health Hub, Saskatoon, SK
2023/7	Staff Radiologist Department of Medical Imaging, Royal University Hospital, Saskatchewan Health Authority
2023/4	Assistant Professor Department of Medical Imaging, College of Medicine, University of Saskatchewan

Affiliations

The primary affiliation is denoted by (*)

(*) 2023/7	Director of Research, Virtual Health Hub

Research Funding History

Awarded [n=8]

2024/4 - 2028/3 Principal Applicant	Improving Access to Culturally Rooted Diagnostic Imaging Services in Rural and Remote Indigenous Communities
	Funding Sources: Canadian Institutes of Health Research (CIHR) Project Grant Total Funding - 1,323,452 Funding Competitive?: Yes
2024/3 - 2026/2 Co-applicant	Synthetic contrast-enhanced MRI for pediatric neuroimaging
	Funding Sources: Saskatchewan Health Research Foundation (The) (SHRF) Solutions Program Total Funding - 150,000 Funding Competitive?: Yes
2024/3 - 2026/2 Co-applicant	Development of a culturally-rooted pediatric virtual care program to facilitate care closer to home
	Funding Sources: Saskatchewan Health Research Foundation (The) (SHRF) Solutions Program Total Funding - 150,000 Funding Competitive?: Yes
2023/7 - 2025/6 Principal Applicant	Artificial intelligence CT-based biological age as a novel predictor of cardiovascular and all-cause mortality
	Funding Sources: Saskatchewan Health Research Foundation (The) (SHRF) Establishment Grant Total Funding - 150,000 Funding Competitive?: Yes

2023/3 - 2025/3 Principal Applicant	Enhancing Access to Ultrasound Services Using a Telerobotic Ultrasonography System in Rural Southern Saskatchewan **Funding Sources:** Saskatchewan Health Research Foundation (The) (SHRF) Solutions Program Total Funding - 150,000 Funding Competitive?: Yes
2024/3 - 2025/2 Co-applicant	Co-Development of a Virtual Care Community Prioritization Tool for Rural and Remote Saskatchewan Communities **Funding Sources:** Saskatchewan Health Research Foundation (The) (SHRF) Mobilize Program Total Funding - 10,000 Funding Competitive?: Yes
2024/1 - 2024/12 Principal Applicant	Generative artificial intelligence to minimize iodine-based contrast media in CT angiography **Funding Sources:** University of Saskatchewan College of Medicine Research Award Total Funding - 30,000 Funding Competitive?: Yes
2022/3 - 2024/2 Co-applicant	Delivery of virtual care in Saskatchewan: a strategic framework and roadmap for implementation **Funding Sources:** Saskatchewan Health Research Foundation (The) (SHRF) Solutions - Impact Grant Total Funding - 150,000 Funding Competitive?: Yes

Completed [n=3]

2020/3 - 2022/3 Co-applicant	Assessment of a telerobotic ultrasound system to improve access to musculoskeletal ultrasound imaging in rural, remote and Indigenous communities **Funding Sources:** Royal University Hospital Foundation (Saskatoon, SK) RUH Foundation Research Grant Total Funding - 24,920 Funding Competitive?: Yes
2019/2 - 2021/1 Co-applicant	Improving lung cancer diagnosis with novel artificial intelligence imaging analytics **Funding Sources:** Saskatchewan Health Research Foundation (The) (SHRF) Sprout Grant Total Funding - 179,686 Funding Competitive?: Yes
2018/1 - 2021/1 Co-applicant	Development and evaluation of a remote robotic ultrasound clinic model to improve access to medical imaging in northern and Indigenous communities **Funding Sources:** Saskatchewan Health Research Foundation (The) (SHRF) Sprout Grant

Total Funding - 154,153
Funding Competitive?: Yes

Publications

Journal Articles

1. Taylor J, Adams S, Dennie C, Lim R, McInnis M, Manos D. (2025). CAR/CSTR practice guideline on CT screening for lung cancer. Can Assoc Radiol J. in press: -.

2. Leonard S, Patel MA, Zhou Z, Le H, Mondal P, Adams SJ. (2025). Comparing artificial intelligence and traditional regression models in lung cancer risk prediction: a systematic review and meta-analysis. J Am Coll Radiol. 22(6): 675-690.

3. Adams SJ, Acosta JN, Rajpurkar P. (2025). How generative AI voice agents will transform medicine. NPJ Digit Med. 8(1): 353.

4. Babyn PS, Adams SJ. (2025). Harnessing the power of generative AI to enhance radiologist efficiency and accuracy. Radiology. 314(3): e250339.

5. Tadesse F, Yang B, Jemal K, Ayana D, Adefris M, Awol M, Tesema M, Dagne B, Abeje S, Bantie A, Loewenberger M, Adams SJ, Mendez I. (2025). Advancing antenatal care in Ethiopia: the impact of tele-ultrasound on antenatal ultrasound access in rural Ethiopia. Telemed J E Health. 31(1): 85-93.

6. Khan A, Adams SJ, Burbridge B, Lovo S, Deason J, Mendez I. (2025). Enhancing ultrasound access in rural Saskatchewan: a qualitatively driven non-sequential mixed methods study of telerobotic technology. J Diagn Med Sonogr. -: -.
    In Press

7. Durr SM, Alras A, Lovo S, Dani H, McIntyre L, Zarzeczny A, Babyn P, Adams SJ, Mendez I. (2025). Virtual care delivery in Saskatchewan: Multi-stakeholder perspectives on implementation, appropriateness, and evaluation. Healthc Manage Forum. -: -.
    In Press

8. Ballard D, Antigua-Made A, Barre E, Edney E, Gordon EB, Kelahan L, Lodhi T, Martin JG, Ozkan M, Serdynski K, Spieler B, Zhu D, Adams SJ. (2025). Impact of ChatGPT and large language models on radiology education: Association of Academic Radiology – Radiology Research Alliance Task Force White Paper. Acad Radiol. 32(5): 3039-3049.
    Refereed?: Yes, Open Access?: Yes

9. Reis EP, Blankemeier L, Zambrano Chaves JM, Jensen MEK, Yao S, Truyts CAM, Willis MH, Adams S, Amaro E Jr, Boutin RD, Chaudhari AS. (2024). Automated abdominal CT contrast phase detection using an interpretable and open-source artificial intelligence algorithm. Eur Radiol. 34: 6680–6687.

10. Mistry NP, Saeed H, Rafique S, Le T, Obaid H, Adams SJ. (2024). Large language models as tools to generate radiology board-style multiple-choice questions. Acad Radiol. 31(9): 3872-3878.

11. Azarfar G, Ko SB, Adams SJ, Babyn PS. (2024). Deep learning-based age estimation from chest CT scans. Int J Comput Assist Radiol Surg. 19(1): 119-127.

12. Henderson RDE, Padash S, Adams SJ, Augusta C, Yi X, Babyn P. (2024). Neonatal catheter and tube placement and radiographic assessment statistics in relation to important anatomic landmarks. Am J Perinatol. 41(S01): e2299-e2306.

13. Adams SJ, Flores EJ, Little BP, Sequist LV, Lennes IT, Shepard JO, Fintelmann FJ. (2024). *RadioGraphics* Update: The 10 pillars of lung cancer screening—rationale and logistics of a lung cancer screening program. RadioGraphics. 44(3): e230057.

14. Ochitwa Z, Fotouhi R, Adams SJ, Noguera Cundar AP, Obaid H. (2024). MSK-TIM: A telerobotic ultrasound system for assessing the musculoskeletal system. Sensors. 24(7): 2368.

15. Jemal K, Ayana D, Tadesse F, Adefris M, Awol M, Tesema M, Dagne B, Abeje S, Bantie A, Butler M, Nwoke C, Kanyuka Z, Adams SJ, Mendez I. (2024). Implementation and evaluation of a pilot antenatal ultrasound imaging program using teleultrasound in Ethiopia. J Telemed Telecare. 30(6): 1005-1016.

16. Deason JP, Adams SJ, Khan A, Lovo S, Mendez I. (2024). A comprehensive evaluation tool to assess community capacity and readiness for virtual care implementation. Telemed J E Health. in press: -.

17. Nguyen E, Green C, Adams SJ, Bishop H, Gleeton G, Hague C, Hanneman K, Harris S, Strzelczyk J, Dennie C. (2024). CAR and CSTR Cardiac computed tomography (CT) practice guidelines: Part 2 – Non-coronary imaging. Can Assoc Radiol J. in press: online.
Published
Refereed?: Yes, Open Access?: Yes

18. Nguyen E, Green C, Adams SJ, Bishop H, Gleeton G, Hague C, Hanneman K, Harris S, Strzelczyk J, Dennie C. (2024). CAR and CSTR cardiac computed tomography (CT) practice guidelines: Part 1 – Coronary CT angiography (CCTA).Can Assoc Radiol J.in press: online.
Published
Refereed?: Yes, Open Access?: Yes

19. Adams SJ, Topol EJ. (2023). Rebooting cancer screening with artificial intelligence. Lancet. 402(10400): 440.
Published
Refereed?: Yes, Open Access?: No

20. Adams SJ, Stone E, Baldwin D, Vliegenthart R, Lee P, Fintelmann F. (2023). Lung cancer screening. Lancet. 401(10374): 390-408.
Published
Refereed?: Yes, Open Access?: No

21. Azarfar G, Ko SB, Adams SJ, Babyn PS. (2023). Applications of deep learning to reduce the need for iodinated contrast media for CT imaging: a systematic review. Int J Comput Assist Radiol Surg. 18(10): 1903-1914.
Published
Refereed?: Yes, Open Access?: No

22. Padash S, Henderson R, Obaid H, Padash Y, Adams SJ, Miller SF, Babyn P. (2023). A pictorial review of the radiographic skeletal findings in Morquio syndrome (mucopolysaccharidosis type IV). Pediatr Radiol. 53(5): 971-983.
Published
Refereed?: Yes, Open Access?: No

23. Adams SJ, Madtes DK, Burbridge B, Johnston J, Goldberg IG, Siegel EL, Babyn P, Nair VS, Calhoun ME. (2023). Clinical impact and generalizability of a computer-assisted diagnostic tool to risk-stratify lung nodules with computed tomography. J Am Coll Radiol. 20(2): 232-242.
Published
Refereed?: Yes, Open Access?: Yes

24. Adams SJ, Mikhael P, Wohlwend J, Barzilay R, Sequist LV, Fintelmann FJ. (2023). Artificial intelligence and machine learning in lung cancer screening. Thorac Surg Clin. 33(4): 401-409.
Published
Refereed?: Yes, Open Access?: No

25. Babyn PS, Adams SJ. (2023). AI analysis of chest radiographs as a biomarker of biological age. Lancet Healthy Longev. 4(9): e446-e447.
Published
Refereed?: Yes, Open Access?: No

26. Adams SJ, Burbridge B, Chatterson L, McKinney V, Babyn P, Mendez I. (2022). Telerobotic ultrasound to remotely provide obstetrical ultrasound services during the COVID-19 pandemic. J Telemed Telecare. 28(8): 568-576.
    Published
    Refereed?: Yes, Open Access?: Yes

27. Adams SJ, Penz E, Imeah B, Burbridge B, Obaid H, Babyn P, Mendez I. (2022). Economic evaluation of telerobotic ultrasound technology to remotely provide ultrasound services in rural and remote communities. J Ultrasound Med. 42(1): Economic evaluation.
    Published
    Refereed?: Yes, Open Access?: No

28. Adams SJ, Burbridge B, Chatterson L, McKinney V, Babyn P, Mendez I. (2022). A telerobotic ultrasound clinic model of ultrasound service delivery to improve access to imaging in rural and remote communities. J Am Coll Radiol. 19(1): 162-171.
    Published
    Refereed?: Yes, Open Access?: Yes

29. Adams SJ, Yao S, Mondal P, Lim H, Mendez I, Babyn P. (2022). Sociodemographic and geographic factors associated with non-obstetrical ultrasound imaging utilization: A population-based study. Can Assoc Radiol J. 73(2): 327-336.
    Published
    Refereed?: Yes, Open Access?: Yes

30. Padash S, Mohebbian MR, Adams SJ, Henderson R, Babyn P. (2022). Pediatric chest radiograph interpretation: How far has artificial intelligence come? A systematic literature review. Pediatr Radiol. 52(8): 1568-1580.
    Published
    Refereed?: Yes, Open Access?: No

31. Jassar S, Adams SJ, Zarzeczny A, Burbridge B. (2022). The future of artificial intelligence in medicine: medical-legalconsiderations for health system leaders. Healthc Manage Forum. 35(3): 185-189.
    Published
    Refereed?: Yes, Open Access?: Yes

32. Adams SJ, Yao S, Mondal P, Lim H, Mendez I, Babyn P. (2022). Sociodemographic and geographic disparities in obstetrical ultrasound imaging utilization: A population-based study. Acad Radiol. 29(5): 650-662.
    Published
    Refereed?: Yes, Open Access?: Yes

33. Adams SJ, Burbridge B, Obaid H, Stoneham G, Babyn P, Mendez I. (2021). Telerobotic sonography for remote diagnostic imaging: Narrative review of current developments and clinical applications. J Ultrasound Med. 40(7): 1287-1306.
    Published
    Refereed?: Yes, Open Access?: No

34. Richardson ML, Adams SJ, Agarwal A, Auffermann WF, Bhattacharya AK, Consul N, Fotos JS, Kelahan LC, Lin C, Lo HS, Nguyen XV, Salkowski LR, Sin JM, Thomas RC, Wassef S, Ikuta I. (2021). Review of artificial intelligence training tools and courses for radiologists. Acad Radiol. 28(9): 1238-1252.
    Published
    Refereed?: Yes, Open Access?: Yes

35. Fotouhi R, Najafi Semnani A, Zhang Q, Adams SJ, Obaid H. (2021). A toolkit for haptic force feedback in a telerobotic ultrasound system. BMC Res Notes. 14(1): 393.
    Published
    Refereed?: Yes, Open Access?: Yes

36. Dressler D, Adams SJ, McWalter E, Shepel M, Lutz I, Obaid H. (2021). Bone-cartilage mismatch in the medial tibial plateau: A MRI study. Knee. 29: 262-270.
Published
Refereed?: Yes, Open Access?: No

37. Zarzeczny A, Babyn P, Adams SJ, Longo J. (2021). Artificial intelligence-based imaging analytics and lung cancer diagnostics: Considerations for health system leaders. Healthc Manage Forum.34(3): 169-174.
Published
Refereed?: Yes, Open Access?: No

38. Adams SJ, Babyn P, Burbridge B, Tang R, Mendez I. (2021). Access to ultrasound imaging: A qualitative study in two northern, remote, Indigenous communities in Canada. Int J Circumpolar Health. 80(1): 1961392.
Published
Refereed?: Yes, Open Access?: Yes

39. Henderson RDE, Yi X, Adams SJ, Babyn P. (2021). Automatic detection and classification of multiple catheters in neonatal radiographs with deep learning.J Digit Imaging. 34(4): 888-897.
Published
Refereed?: Yes, Open Access?: No

40. Adams SJ, Babyn P, Mendez I. (2021). Access to mammography among Indigenous peoples in North America.Acad Radiol. 28(7): 950-952.
Published
Refereed?: No, Open Access?: No

41. Obaid M, Zhang Q, Adams SJ, Fotouhi R, Obaid H. (2021). Development and assessment of a telesonography system for musculoskeletal imaging.Eur Radiol Exp. 5(1): 29.
Published
Refereed?: Yes, Open Access?: No

42. Adams SJ, Henderson R, Yi X, Babyn P. (2021). Artificial intelligence solutions for analysis of X-ray images. Can Assoc Radiol J. 72(1): 60-72.
Published
Refereed?: Yes, Open Access?: Yes

43. Adams SJ, Haddad H. (2021). Artificial intelligence to diagnose heart failure based on chest X-rays and potential clinical implications. Can J Cardiol. 37(8): 1153-1155.
Published
Refereed?: No, Open Access?: No

44. Adams SJ, Mondal P, Tyan C-C, Penz E, Lim H, Babyn P. (2021). Development and cost analysis of a lung nodule management strategy combining artificial intelligence and Lung-RADS for baseline lung cancer screening. J Am Coll Radiol. 18(5): 741-751.
Published
Refereed?: Yes, Open Access?: Yes

45. Madani Larijani M, Azizian A, Carr T, Adams SJ, Groot G. (2021). Combined lumbar spine MRI and CT appropriateness checklist: a quality improvement project in Saskatchewan, Canada.Int J Qual Health Care. 33(3): 1-8.
Published
Refereed?: Yes, Open Access?: Yes

46. Yi X, Adams SJ, Babyn P, Elnajmi A. (2020). Automatic catheter detection in pediatric X-ray images using a scale-recurrent network and synthetic data. J Digit Imaging. 33(1): 181-190.
Published
Refereed?: Yes, Open Access?: No

47. Adams SJ, Tang R, Babyn P. (2020). Patient perspectives and priorities regarding artificial intelligence in radiology: Opportunities for patient-centered radiology. J Am Coll Radiol. 17(8): 1034-1036.
Published
Refereed?: Yes, Open Access?: No

48. Obaid H, Vassos N, Adams SJ*, Bryce R, Donuru A, Sinclair N. *corresponding author. (2020). Development of a risk assessment model to differentiate malignant and benign musculoskeletal soft-tissue masses on magnetic resonance imaging. J Med Imaging Radiat Oncol. 64(1): 9-17.
Published
Refereed?: Yes, Open Access?: No

49. Adams SJ, Dennie C. (2020). Chest imaging in patients with suspected COVID-19. CMAJ. 192(25): E676.
Published
Refereed?: Yes, Open Access?: No

50. Yi X*, Adams SJ*, Henderson R, Babyn P. *co-first authors. (2020). Computer-aided assessment of catheters and tubes on radiographs: How good is artificial intelligence for assessment?. Radiology: Artificial Intelligence. 2(1): 1-9.
Published
Refereed?: Yes, Open Access?: No

51. Nguyen XV, Adams SJ, Hobbs S, Ganeshan D, Wasnik A. (2019). Radiologist as lifelong learner: Strategies for ongoing education. Acad Radiol. 26(8): 1120-1126.
Published
Refereed?: Yes, Open Access?: Yes

52. Baniak N, Adams S, Lee CH, Chibbar R, Kanthan R. (2019). Extrapelvic metastases in endometrial stromal sarcomas: A clinicopathological review with immunohistochemical and molecular characterization.Int J Surg Pathol. 27(2): 208-215.
Published
Refereed?: Yes, Open Access?: No

53. Adams SJ, Rakheja R, Bryce R, Babyn PS. (2018). Incidence and economic impact of incidental findings on PET/CT imaging. Can Assoc Radiol J. 69(1): 63-70.
Published
Refereed?: Yes, Open Access?: Yes

54. Baniak N, Adams S, Chibbar R, Lee CH, Kanthan R. (2018). Hepatic endometrial stromal sarcoma. Pathol Res Pract. 214(10): 1726-1731.
Published
Refereed?: Yes

55. Adams SJ, Burbridge B, Badea A, Kanigan N, Bustamante L, Babyn P, Mendez I. (2018). A crossover comparison of standard and telerobotic approaches to prenatal ultrasound imaging. J Ultrasound Med. 37(11): 2603-2612.
Published
Refereed?: Yes

56. Hernández-Ronquillo L, Adams SJ, Ballendine SA, Téllez-Zenteno JF. (2018). Epilepsy in an elderly population: Classification, etiology and drug-resistance. Epilepsy Res. 140: 90-94.
Published
Refereed?: Yes

57. Adams SJ, Kirk A, Auer, RN. (2018). Adult-onset leukoencephalopathy with axonal spheroids and pigmented glia (ALSP): Integrating the literature on hereditary diffuse leukoencephalopathy with spheroids (HDLS) and pigmentary orthochromatic leukodystrophy (POLD). J Clin Neurosci. 48: 42-49.
Published
Refereed?: Yes

Book Chapters

1. Jassar S, Thadaney Israni S, Prober C, Adams SJ. (2024). A precision medical education approach to achieving justice, equity, diversity, and inclusion. Bonilla-Silva E, Haozous E, Kayingo G, McDade W, Meeks L, Núñez A, Oyeyemi T, Southerland J, and Sukhera J. Reimagining Medical Education for the Future of Health Equity and Social Justice. : -.
   Published, Elsevier, United States of America

Student/Postdoctoral Supervision

Doctorate [n=4]

2025/1	Christina Cole, University of Saskatchewan
Principal Supervisor	Thesis/Project Title: Artificial intelligence in health services research
	Present Position: PhD student

2025/1	Santosh Kumar Yadav, University of Saskatchewan
Principal Supervisor	Thesis/Project Title: Improving cardiovascular risk stratification with multimodal artificial intelligence
	Present Position: PhD student

2024/8	Arash Amanlou, University of Saskatchewan
Co-Supervisor	Thesis/Project Title: 3D printing of respiratory systems from CT
	Present Position: PhD student

2024/5	Jubayer Biswas, University of Saskatchewan
Co-Supervisor	Thesis/Project Title: Artificial intelligence in lung cancer diagnosis
	Present Position: PhD student

Doctorate Equivalent [n=3]

2024/5	Sierra Leonard, University of Saskatchewan
Principal Supervisor	Thesis/Project Title: Artificial intelligence and traditional regression models for determining future lung cancer risk: a systematic review and meta-analysis
	Present Position: Medical student

2024/5	Meet Patel, University of Saskatchewan
Principal Supervisor	Thesis/Project Title: AI for Enhanced Disease Screening in CT Imaging
	Present Position: Medical student

2023/5 - 2023/8	Huzaifa Saeed, University of Saskatchewan
Principal Supervisor	Thesis/Project Title: Large language models as tools to generate radiology board-style multiple-choice questions
	Present Position: Medical student

Post-doctorate [n=1]

2024/9	Pouya Shiri, University of Saskatchewan
Principal Supervisor	Thesis/Project Title: Machine learning in cardiothoracic imaging
	Present Position: Postdoctoral Fellow

Research Associate [n=2]

2024/5	Chad Hammond, University of Saskatchewan
Principal Supervisor	Thesis/Project Title: Virtual care and rural and remote healthcare
	Present Position: Research Associate

2023/8	Xin Yi, University of Saskatchewan
Principal Supervisor	Thesis/Project Title: Artificial intelligence in medical imaging
	Present Position: Senior AI Lead