

DMNB QUARTERLY REPORT

Q2: July – September 2021

RESEARCH

General Update

- Dr. Keith Brunt recruited Candice Pollack as Director of Strategy & Partnerships for IMPART investigator team Canada.
- The IMPART biobank collects, processes, and stores cardiac muscle and adipose tissues, and blood samples from patients with cardiovascular diseases. Recently, the IMPART biobank has been approved by the Horizon Health Network’s Research Ethics Board to collect health heart tissues for research purposes. This will be the first human heart explant program in Atlantic Canada.
- IMPART will be hosting a virtual event called IMPARTy on October 15 and will include feature presentations, a student presentation competition, and a panel.
- Dr. Daniel Dutton was named the New Brunswick Health Research Foundation (NBHRF) Mentor of the Month for September 2021.
- Dr. Dutton was also interview by the *Telegraph-Journal* for the August 25 story “Professor probes extreme poverty in New Brunswick.”
- Dr. Sundaram Pakkiriswami, a postdoctoral fellow in the Pulinilkunnil Laboratory, secured a two-year fellowship valued at \$80,000 from the New Brunswick Health Research Foundation.
- Dr. Thomas Pulinilkunnil was featured as the first speaker in the IMPART Research Reels series on September 29.
- Adithi Pisapati and Maggie Pickard joined the Pulinilkunnil Laboratory for their MSc in September 2021.

Metrics

Funding Awarded to Principal Investigators (PIs)

PI	Amount	Funding Agency	Project Title	Principal or Co-Applicant	Length
Atkinson, Paul	\$1,239,300	Canadian Institute of Health Research	Selective neuroimaging for head-injured emergency patients who take anticoagulant medication.	Co	



	\$1,416,770	Transport Canada Enhanced Road Safety Transfer Payment Program	Monitoring Impaired Driving in Canada.	Co	
Brunt, Keith	\$259,999	Mitacs Accelerate & Pivotal Health Inc.	Evaluation and characterization of pharmacological nanobioparticles from proprietary botanical biomass processing to elicit entourage cytoprotective and antioxidant properties.	Principal	2021-2025
Dutton, Dan	\$493,425.	CIHR	Addressing household food insecurity in Canada: learning from the COVID-19 pandemic.	Co	July 2021-December 2023
Pulinilkunnil, Thomas	\$40,000	Heart & Stroke NB	Studying male-female differences in predicting cardio-metabolic outcomes during obesity and diabetes		2 years

Principal Investigator (PI) Peer-Reviewed Publications

Atkinson, Paul	<ol style="list-style-type: none"> 1. Keefer, S., Atkinson, P., Chandra, K., Henneberry, R. J., Olszynski, P. A., Peach, M., Diegelmann, L., Lamprecht, H., Stander, M., Lussier, D., Pham, C., Milne, J., Fraser, J., & Lewis, D. (2021). Sonographic Findings of Left Ventricular Dysfunction to Predict Shock Type in Undifferentiated Hypotensive Patients: An Analysis From the Sonography in Hypotension and Cardiac Arrest in the Emergency Department SHoC-ED) Study. <i>Cureus</i>, 13(7), e16360. https://doi.org/10.7759/cureus.16360 2. Crain C, Meyer T, Webster D, Fraser J, Atkinson P. Emergency Physicians Ability to Recognize and Diagnose Opiate Use Disorder: A Qualitative Study. <i>Cureus</i> 13(9): e18216. doi:10.7759/cureus.18216 3. Lalonde E, Burwash-Brennan T, Burns K, Harris T, Thomas S, Woo MY, Atkinson P. Is point-of-care ultrasound a reliable predictor of outcome during traumatic cardiac arrest? A systematic review and meta-analysis from the SHoC investigators. <i>Resuscitation</i>. 2021 Aug 23;167:128-136. doi: 10.1016/j.resuscitation.2021.08.027. Epub ahead of print. PMID: 34437998. 4. Kestler A, Kaczorowski J, Dong K, Orkin AM, Daoust R, Moe J, Van Pelt K, Andolfatto G, Klaiman M, Yan J, Koh JJ, Crowder K, Webster D, Atkinson P, Savage D, Stempien J, Besserer F, Wale J, Lam A, Scheueremeyer F. A cross-sectional survey on buprenorphine-naloxone
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	<p>practice and attitudes in 22 Canadian emergency physician groups: a cross-sectional survey. <i>CMAJ Open</i>. 2021 Sep 21;9(3):E864-E873. doi: 10.9778/cmajo.20200190. PMID: 34548331.</p> <p>5. Gottlieb M, Marks AE, Hecht N, Atkinson P. Just the facts: point-of-care ultrasound for painless loss of vision. <i>CJEM</i>. 2021 Sep;23(5):590-592. doi: 10.1007/s43678-021-00169-w. Epub 2021 Jun 29. PMID: 34185306.</p>
Brunt, Keith	<p>1. A new approach to improve the hemodynamic assessment of cardiac function independent of respiratory influence. Ogilvie LM, Edgett BA, Gray S, Al-Muftay S, Huber JS, Brunt KR, Simpson JA. <i>Sci Rep</i>. 2021 Aug 26;11(1):17223. doi: 10.1038/s41598-021-96050-y. PMID: 34446745 Free PMC article.</p> <p>2. Regional cardiac strain mapping by four-dimensional ultrasound provides earlier detection of systolic and diastolic dysfunction. Ogilvie LM, Coyle-Asbil B, Brunt KR, Simpson JA. <i>Am J Physiol Heart Circ Physiol</i>. 2021 Aug 1;321(2):H306-H308. doi: 10.1152/ajpheart.00335.2021. Epub 2021 Jul 2. PMID: 34213391 No abstract available.</p> <p>3. Reperused vs. nonreperused myocardial infarction: when to use which model. Lindsey ML, de Castro Brás LE, DeLeon-Pennell KY, Frangogiannis NG, Halade GV, O'Meara CC, Spinale FG, Kassiri Z, Kirk JA, Kleinbongard P, Ripplinger CM, Brunt KR. <i>Am J Physiol Heart Circ Physiol</i>. 2021 Jul 1;321(1):H208-H213. doi: 10.1152/ajpheart.00234.2021. Epub 2021 Jun 11. PMID: 34114891 Free PMC article.</p>
Dutton, Dan	<p>1. Milaney K; Passi J; Zaretsky L; Liu T; O'Gorman C; Hill L; Dutton DJ. Drug Use, Homelessness and Health: Responding to the Opioid Overdose Crisis with Housing and Harm Reduction Services. <i>Harm Reduction Journal</i>, (18:92) 2021.</p> <p>2. Thompson K, Dutton DJ, MacNabb K, Liu T, Blades S, Asbridge M. Changes in alcohol consumption during the COVID-19 pandemic: Exploring gender differences and the role of emotional distress. <i>Health Promotion and Chronic Disease Prevention in Canada</i>, (41:9) September 2021.</p>
Kienesberger, Petra	<p>1. <u>Autotaxin-LPA-LPP3 Axis in Energy Metabolism and Metabolic Disease</u>. Jose A, Kienesberger PC. <i>Int J Mol Sci</i>. 2021 Sep 3;22(17):9575. doi: 10.3390/ijms22179575.</p>
Kienesberger, Petra & Pulinilkunnil, Thomas	<p>1. <u>Inhibiting BCKDK in triple negative breast cancer suppresses protein translation, impairs mitochondrial function, and potentiates doxorubicin cytotoxicity</u>. Biswas D, Slade L, Duffley L, Mueller N, Dao KT, Mercer A, Pakkiriswami S, El Hiani Y, Kienesberger PC, Pulinilkunnil T. <i>Cell Death Discov</i>. 2021 Sep 15;7(1):241. doi: 10.1038/s41420-021-00602-0.</p>
Kienesberger, Petra; Pulinilkunnil, Thomas; Reiman, Tony; & Brunt; Keith	<p>1. Grieve S, Puvvada N, Phinyomark A, Russell K, Murugesan A, Zed E, Hassan A, Legare J-F, Kienesberger PC, Pulinilkunnil T, Reiman T, Scheme E, Brunt K*. Nanoparticle surface-enhanced Raman spectroscopy as a non-invasive, label-free tool to monitor hematological malignancy progression. 2021. Accepted in <i>Nanomedicine</i></p>
Pulinilkunnil, Thomas	<p>1. <u>Deletion of BCATm increases insulin-stimulated glucose oxidation in the heart</u>. Uddin GM, Karwi QG, Pherwani S, Gopal K, Wagg CS, Biswas D, Atnasious M, Wu Y, Wu G, Zhang L, Ho KL, Pulinilkunnil T, Ussher JR, Lopaschuk GD. <i>Metabolism</i>. 2021 Sep 1;124:154871. doi: 10.1016/j.metabol.2021.154871. Online ahead of print. PMID: 34478752</p>

Presentations by Principal Investigators (PIs)

Dutton, Dan	Dutton DJ. "The burden of in-hospital and post-discharge trauma mortality in New Brunswick". UNB Health Research Conference. August 19, 2021. Online.
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Dalhousie Faculty of Medicine
New Brunswick Trainee Profile

Logan Slade

Name of Supervisor & Department: Dr. Thomas Pulinikunnil, Biochemistry and Molecular Biology

Career stage: PhD student

What did you do before coming to DMNB? Really my career started at DMNB. I did my undergraduate degree at the University of New Brunswick on the Saint John campus before starting at DMNB as a summer student in 2014, after which I completed my honors project in Dr. Pulinikunnil's laboratory and then began graduate school here in 2015.

Why did you choose to come to DMNB? My main reason for choosing DMNB was that my research interests aligned with that of my supervisor. The project we're working on has kept me interested every day and I feel that the research we are doing is important. I also appreciate the freedom that my supervisor has given me to pursue the questions that I find exciting even if that has meant some mistakes along the way. Lastly, I love New Brunswick and Saint John, so I was happy to have the opportunity to work here.

What sparked your interest in scientific research? There was no one spark which led me to scientific research; however I have always loved science and always had a drive to learn. Throughout my undergrad degree I was on the path towards medical school, but I gradually understood that my real passion was for discovery, and the opportunity to conduct research as an undergrad certainly helped solidify that interest.

What is your research about? I research breast cancer, a disease that is a leading cause of death among women. Breast cancer can be divided into different subtypes, and one of these subtypes is called triple negative breast cancer which is more challenging to treat and generally has lower survival rates. Our main research goal is to understand the molecular pathways which allow this cancer to grow and use that knowledge to develop new methods of treatment to improve patient outcomes. Our current research focuses on a protein called TFEB. TFEB is



important for the growth triple cancer breast cancer cells, and we are trying to understand how this protein is used by cancer, and if those functions are therapeutically targetable.

What excites you most about your research? I always find the process of discovery exciting. Putting together small pieces of research into a bigger picture, forming a new hypothesis you can test, and sharing those results my colleagues has been rewarding. The idea that some of my research could someday provide a benefit to humanity has always motivated me.

What it is like to be a trainee at DMNB? Training at DMNB has been wonderful. The access to state-of-the-art equipment essentially all in one room is remarkable and working closely with the other trainees in our building is great.

If you could go back in time, what advice would you give your "younger self"? The advice I would give to my younger self is one that I still am continuing to learn, which is to take chances and grasp opportunities. I often tend to stray to towards to path which is most familiar, but I find myself most often rewarded when pushing outside my comfort zone.

Where do you see yourself five years from now? In five years, hopefully I'll be completing a productive post-doctoral fellowship and working towards a faculty position. I would like to continue doing cancer research with on focus on identifying new molecular targets for treatment.

What do you like to do in your spare time for fun? Outside of work I like to ride my bike, and I also play soccer a couple times a week. I also enjoy reading (or listening to) non-fiction and history books, and that's always what I'm listening to while working in the lab.

Dalhousie Faculty of Medicine New Brunswick Researchers

1. Emergency Medicine Saint John Team

EM STUDIES

- Code MI study site - investigating use of new troponin threshold for female patients, lab will report new cut offs (female <10 ng/L)
- On-going recruitment for ED fascia iliaca blocks
- Prospective data collection for airway registry is on-going
- Recruiting chest pain NYD patients discharged from ED for accessing follow up study - Thank you for your help, recruitment is now COMPLETE

AWARDS

- CIHR Operating Grant - Emerging COVID19 Gaps and priorities- Investigating the Post-Acute Sequelae of SARS-CoV-2 Infections: a Patient Oriented Canadian COVID-19 Emergency Department Rapid Response Network (CCEDRRN) Study. Patrick Archambault (PI @ University Montreal). Kavish Chandra is a co-applicant along with Hana Weimer. Awarded amount \$499,945.00
- COVID19 Immunity Task Force Grant - Canadian COVID-19 Emergency Department Rapid Response Network: Real-World Vaccine Effectiveness and Duration of Protection

in Special Populations. Corrine Hohl (PI @ UBC), Kavish Chandra is a co-applicant along with Hana Weimer

- CIHR Grant - Selective neuroimaging for head-injured emergency patients who take anticoagulant medication. Kerstin de Wit (PI @ Queens), Paul Atkinson as co-applicant. Awarded amount \$ 1, 239, 300.00
- Dr. Lewis and the DMNB PoCUS club's videos are now part of the Life in the Fast Lane EM and Critical Care blog <https://litfl.com/ultrasound-library/>
- Transport Canada's ERSTPP program (Enhanced Road Safety Transfer Payment Program) Grant - Monitoring Impaired Driving in Canada. Brubacher JR (PI @ UBC). Paul Atkinson as co-applicant along with Kirk Magee. Awarded amount \$ 1, 416, 770.00
- Congratulations to Eric Plant (MS4) and Dr. David Lewis on their work with the Seguin Canadian POCUS Education Conference (SCPEC) is a student-led, OMSA-partnered, initiative that will aim to increase POCUS knowledge for Canada's medical students while also engaging Canada's foremost POCUS experts in the realm of undergraduate medical education.

PUBLICATIONS

Keefer, S., Atkinson, P., Chandra, K., Henneberry, R. J., Olszynski, P. A., Peach, M., Diegelmann, L., Lamprecht, H., Stander, M., Lussier, D., Pham, C., Milne, J., Fraser, J., & Lewis, D. (2021). Sonographic Findings of Left Ventricular Dysfunction to Predict Shock Type in Undifferentiated Hypotensive Patients: An Analysis From the Sonography in Hypotension and Cardiac Arrest in the Emergency Department SHoC-ED) Study. *Cureus*, 13(7), e16360. <https://doi.org/10.7759/cureus.16360>

Hohl CM, Rosychuk RJ, Hau JP, Hayward J, Landes M, Yan JW, Ting DK, Welsford M, Archambault PM, Mercier E, Chandra K, Davis P, Vaillancourt S, Leeies M, Small S, Morrison JM. Treatments, resource utilization, and outcomes of covid-19 patients presenting to emergency departments across pandemic waves: an observational study by the canadian covid-19 emergency department rapid response network (ccedrrn). *Medrxiv* [internet]. 2021 Jan 1;2021.07.30.21261288. Available from: <http://medrxiv.org/content/early/2021/08/01/2021.07.30.21261288.abstract>

Crain C, Meyer T, Webster D, Fraser J, Atkinson P. Emergency Physicians Ability to Recognize and Diagnose Opiate Use Disorder: A Qualitative Study. *Cureus* 13(9): e18216. doi:10.7759/cureus.18216

Lalande E, Burwash-Brennan T, Burns K, Harris T, Thomas S, Woo MY, Atkinson P. Is point-of-care ultrasound a reliable predictor of outcome during traumatic cardiac arrest? A systematic review and meta-analysis from the SHoC investigators. *Resuscitation*. 2021 Aug 23;167:128-136. doi: 10.1016/j.resuscitation.2021.08.027. Epub ahead of print. PMID: 34437998.

Kestler A, Kaczorowski J, Dong K, Orkin AM, Daoust R, Moe J, Van Pelt K, Andolfatto G, Klaiman M, Yan J, Koh JJ, Crowder K, Webster D, Atkinson P, Savage D, Stempien J, Besserer F, Wale J, Lam A, Scheueremeyer F. A cross-sectional survey on buprenorphine-naloxone practice and attitudes in 22 Canadian emergency physician groups: a cross-sectional survey. *CMAJ Open*. 2021 Sep 21;9(3):E864-E873. doi: 10.9778/cmajo.20200190. PMID: 34548331.

Gottlieb M, Marks AE, Hecht N, Atkinson P. Just the facts: point-of-care ultrasound for painless loss of vision. CJEM. 2021 Sep;23(5):590-592. doi: 10.1007/s43678-021-00169-w. Epub 2021 Jun 29. PMID: 34185306.

2. Dr. Colleen O'Connell (Stan Cassidy Centre for Rehabilitation, DMNB Assistant Professor, PMR and RIM Unit Head)

AWARDS

Awarded the Hon. Andy Scott Award from the Premiers Council on Disability, Gov't of NB Named 'Outstanding Healthcare Partner Award" by Muscular Dystrophy Canada

FUNDING

\$14,000 Investigator Initiated Study for "Assessment of Maximum Phonation Time & Patient Reported Outcome Measures in Young Adults and Adults with Spinal Muscular Atrophy" (Roche)

PUBLICATIONS

Robichaud PP, Arseneault M, O'Connell C, Ouellette RJ, Morin PJ. Circulating cell-free DNA as potential diagnostic tools for amyotrophic lateral sclerosis. Neurosci Lett. 2021 Apr 17;750:135813. doi: 10.1016/j.neulet.2021.135813. Epub 2021 Mar 8. PMID: 33705931. <https://doi.org/10.1016/j.neulet.2021.135813>

Bhaskar A, Bell A, Boivin M, Briques W, Brown M, Clarke H, Cyr C, Eisenberg E, de Oliveira Silva RF, Frohlich E, Georgius P, Hogg M, Horsted TI, MacCallum CA, Müller-Vahl KR, O'Connell C, Sealey R, Seibolt M, Sihota A, Smith BK, Sulak D, Vigano A, Moulin DE. Consensus recommendations on dosing and administration of medical cannabis to treat chronic pain: results of a modified Delphi process. J Cannabis Res. 2021 Jul 2;3(1):22. doi: 10.1186/s42238-021-00073-1. PMID: 34215346; PMCID: PMC8252988. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8252988/>

Marta Kaminska, Karen P. Rimmer, Douglas A. McKim, Mika Nonoyama, Eleni Giannouli, Debra L. Morrison, Colleen O'Connell, Basil J. Petrof & François Maltais (2021) Longterm non-invasive ventilation in patients with chronic obstructive pulmonary disease (COPD): 2021. Canadian Thoracic Society Clinical Practice Guideline update, Canadian Journal of Respiratory, Critical Care, and Sleep Medicine, 5:3, 160-183, DOI: 10.1080/24745332.2021.1911218 <https://doi.org/10.1080/24745332.2021.1911218>

Slyter J, Hodgkinson V, Lounsberry J, Brais B, Chapman K, Genge A, Izenberg A, Johnston W, Lochmüller H, O'Ferrall E, Pfeffer G, Plamondon S, Rodrigue X, Schellenberg K, Shoosmith C, Stables C, Taillon M, Warman-Chardon J, Korngut L, O'Connell C. A Canadian Adult Spinal Muscular Atrophy Outcome Measures Toolkit: Results of a National Consensus using a Modified Delphi Method. J Neuromuscul Dis. 2021;8(4):579-588. doi: 10.3233/JND-200617. PMID: 33867362; PMCID: PMC8385500. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8385500/>

Peters N, Dal Bello-Haas V, Packham T, Chum M, O'Connell C, Johnston WS, MacDermid JC, Turnbull J, Van Damme J, Kuspinar A. Do Generic Preference-Based Measures Accurately Capture Areas of Health-Related Quality of Life Important to Individuals with Amyotrophic Lateral Sclerosis: A Content Validation Study. *Patient Relat Outcome Meas*. 2021 Jun 25;12:191-203. doi: 10.2147/PROM.S313512. PMID: 34211304; PMCID: PMC8242131. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8242131/>

Griffin SC, Alphonso AL, Tung M, Finn S, Perry BN, Hill W, O'Connell C, Hanling SR, Goff BJ, Pasquina PF, Tsao J. Characteristics of phantom limb pain in U.S. civilians and service members. *Scand J Pain*. 2021 Sep 17. doi: 10.1515/sjpain-2021-0139. Epub ahead of print. PMID: 34529903.

Salmon K, Anoja N, Breiner A, Chum M, Dionne A, Dupré N, Fiander A, Fok D, Ghavanini A, Gosselin S, Izenberg A, Johnston W, Kalra S, Matte G, Melanson M, O'Connell C, Ritsma B, Schellenberg K, Shoesmith C, Tremblay S, Williams H, Genge A. Genetic testing for amyotrophic lateral sclerosis in Canada - an assessment of current practices. *Amyotroph Lateral Scler Frontotemporal Degener*. 2021 Sep 27:1-8. doi: 10.1080/21678421.2021.1980890. Epub ahead of print. PMID: 34569363. <https://www.tandfonline.com/doi/epub/10.1080/21678421.2021.1980890?needAccess=true>

PRESENTATIONS

Telemedicine and Spinal Cord Care - Implementation is just a call away. International Spinal Cord Society Annual Scientific Meeting Sept 30, 2021 (Virtual)

Identification and Characterization of non-traumatic spinal cord dysfunction in New Brunswick, Canada using population based administrative health claims data. International Spinal Cord Society Annual Scientific Meeting Sept 30, 2021 (Virtual)

Global initiatives in Spinal Cord; building and sustaining health system capacities. International Spinal Cord Society Annual Scientific Meeting Sept 30, 2021 (Virtual)

Responding to Spinal Cord Injuries in Emergencies: development of a global minimum standard for response teams. International Spinal Cord Society Network of Networks Day. Sept 28, 2021.

Sexuality and ALS. Everlasting Love series of Sexuality and Disability Podcast (Part 1 and 2) <https://www.youtube.com/watch?v=oSVF28pIU7c>
<https://www.youtube.com/watch?v=HCXEsB0Y5dU>

3. Canada East Spine Centre

FUNDING/AWARDS

Erin Bigney- Mentor of the Month, August 2021- New Brunswick Health Research Foundation
Mentor of the Month: August 2021 | August 2021 Mentor (mailchi.mp)

PUBLICATIONS

Singh, S., Ailon, T., McIntosh, G., Dea, N., Paquet, J., **Abraham, E.**, Bailey, C. S., Weber, M. H., Johnson, M. G., Nataraj, A., Glennie, R. A., **Attabib, N.**, Kelly, A., Hall, H., Rampersaud, Y. R., **Manson, N.**, Phan, P., Thomas, K., Fisher, C. G., & Charest-Morin, R. (2021). Time to return to work after elective lumbar spine surgery, *Journal of Neurosurgery: Spine* (published online ahead of print 2021). Retrieved Oct 8, 2021, from <https://thejns.org/spine/view/journals/j-neurosurg-spine/aop/article-10.3171-2021.2.SPINE202051/article-10.3171-2021.2.SPINE202051.xml>

Hathi, K., Bigney, E., Richardson, E., Alugo, T., El-Mughayyar, D., Vandewint, A., **Manson, N., Abraham, E., Small, C.**, Thomas, K., Fisher, C. G., Rampersaud, Y. R., Hall, H., McIntosh, G., Johnson, M. G., Bailey, C. S., Weber, M. H., Paquet, J., Kingwell, S., ... **Attabib, N.** (2021). Minimally Invasive vs. Open Surgery for Lumbar Spinal Stenosis in Patients with Diabetes – A Canadian Spine Outcomes and Research Network Study. *Global Spine Journal*. <https://doi.org/10.1177/21925682211042576>

Iorio-Morin, C., Fisher, C. G., **Abraham, E.**, Nataraj, A., **Attabib, N.**, Paquet, J., Hogan, T. G., Bailey, C. S., Ahn, H., Johnson, M., Richardson, E. A., **Manson, N.**, Thomas, K., Rampersaud, Y. R., Hall, H., & Dea, N. (2021). Low-back pain after lumbar discectomy for disc herniation: what can you tell your patient?, *Journal of Neurosurgery: Spine* (published online ahead of print 2021). Retrieved Oct 8, 2021, from <https://thejns.org/spine/view/journals/j-neurosurg-spine/aop/article-10.3171-2021.2.SPINE201625/article-10.3171-2021.2.SPINE201625.xml>

Ayling, O. G. S., Charest-Morin, R., Eagles, M. E., Ailon, T., Street, J. T., Dea, N., McIntosh, G., Christie, S. D., **Abraham, E.**, Jacobs, W. B., Bailey, C. S., Johnson, M. G., **Attabib, N.**, Jarzem, P., Weber, M., Paquet, J., Finkelstein, J., Stratton, A., Hall, H., **Manson, N.**, Rampersaud, Y. R., Thomas, K., & Fisher, C. G. (2021). National adverse event profile after lumbar spine surgery for lumbar degenerative disorders and comparison of complication rates between hospitals: a CSORN registry study, *Journal of Neurosurgery: Spine* (published online ahead of print 2021). Retrieved Oct 8, 2021, from <https://thejns.org/spine/view/journals/j-neurosurg-spine/aop/article-10.3171-2021.2.SPINE202150/article-10.3171-2021.2.SPINE202150.xml>

Yung Park, Yann Philippe Charles, Carlos Santos, Yueming Song, Shisheng He, Jae-Young Hong, Paulo M. Pereira, Vasileios Arzoglou, Shaishav Bhagat, Dimitri Vanhauwaert, **Neil A. Manson**, P138. Lumbar fusion success in patients with degenerative lumbar disease without spondylolisthesis: A global study comparing anterolateral versus posterior MIS approaches, *The Spine Journal*, Volume 21, Issue 9, Supplement, 2021, Pages S208-S209, ISSN 1529-9430, <https://doi.org/10.1016/j.spinee.2021.05.346>.
(<https://www.sciencedirect.com/science/article/pii/S1529943021006100>)

Evaniew, N., Bogle, A., Soroceanu, A., Jacobs, W. B., Cho, R., Fisher, C. G., Rampersaud, Y. R., Weber, M. H., Finkelstein, J. A., **Attabib, N.**, Kelly, A., Stratton, A., Bailey, C. S., Paquet, J., Johnson, M., **Manson, N. A.**, Hall, H., McIntosh, G., & Thomas, K. C. (2021). Minimally Invasive Tubular Lumbar Discectomy Versus Conventional Open Lumbar Discectomy: An Observational Study From the Canadian Spine Outcomes and Research Network. *Global Spine Journal*. <https://doi.org/10.1177/21925682211029863>

Inculet, C., Urquhart, J. C., Rasoulinejad, P., Hall, H., Fisher, C., **Attabib, N.**, Thomas, K., Ahn, H., Johnson, M., Glennie, A., Nataraj, A., Christie, S. D., Stratton, A., Yee, A., **Manson, N.**, Paquet, J., Rampersaud, Y. R., & Bailey, C. S. (2021). Factors associated with using an interbody fusion device for low-grade lumbar degenerative versus isthmic spondylolisthesis: a retrospective cohort study, *Journal of Neurosurgery: Spine*, 35(3), 299-307. Retrieved Oct 8, 2021, from <https://thejns.org/spine/view/journals/j-neurosurg-spine/35/3/article-p299.xml>

S Mohammed Karim, MD, David W Cadotte, MD, PhD, FRCSC, Jefferson R Wilson, MD, FRCSC, Brian K Kwon, MD, PhD, FRCSC, W Bradley Jacobs, MD, FRCSC, Michael G Johnson, MD, FRCSC, Jérôme Paquet, MD, FRCSC, Christopher S Bailey, MD, FRCSC, Sean D Christie, MD, FRCSC, Andrew Nataraj, MD, FRCSC, **Najmedden Attabib**, MD, FRCSC, Philippe Phan, MD, PhD, FRCSC, Greg McIntosh, MSc, Hamilton Hall, MD, FRCSC, Y Raja Rampersaud, MD, FRCSC, **Neil Manson**, MD, FRCSC, Kenneth C Thomas, MD, FRCSC, Charles G Fisher, MD, MHSc, FRCSC, Nicolas Dea, MD, MSc, FRCSC, on behalf of the Canadian Spine Outcomes and Research Network (CSORN), Effectiveness of Surgical Decompression in Patients With Degenerative Cervical Myelopathy: Results of the Canadian Prospective Multicenter Study, *Neurosurgery*, 2021; nyab295, <https://doi.org/10.1093/neuros/nyab295>

PRESENTATIONS

Dr. Najmedden Attabib and Dana El-Mughayyar presented on Traumatic Conus Medullaris Injury Recovery in Motor Strength, Bowel and Bladder Functions. Spinal Cord Injury Network of Atlantic Provinces conference, Sept 16 2021.