DALHOUSIE UNIVERSITY

DMNB QUARTERLY REPORT

Q1: April – June 2021

RESEARCH

General Update

- In May 2021, the New Brunswick Health Research Foundation (NBHRF) awarded Dr. Petra Kienesberger with the title of Mentor of the Month.
- In June 2021, Dr. Purvi Trivedi obtained her PhD during the Dalhousie University Spring 2021 Convocation. Dr. Trivedi is supervised by Dr. Thomas Pulinilkunnil, Department of Biochemistry & Molecular Biology.
- On 23 June 2021, one of Dr. Tony Reiman's trainees, John Stanton, successfully defended his MSc thesis at the University of New Brunswick.

Metrics

Funding Awarded to Principal Investigators (PIs)

- Dr. Thomas Pulinilkunnil received a $9,209 Chesley Family Research Award for his project entitled "Examining the utility of novel dietary bioactive peptides and polyphenols for cardioprotection during obesity and diabetes."
- Dr. Daniel Dutton was part of three groups that received funding this quarter:
    - CIHR Maritime SPOR SUPPORT Unit – Phase II. Maritime SPORT SUPPORT Unit Phase II Proposal. $7,327,627. April 2021-March 2026. Matching funds from provincial governments not included.
    - CIHR/AGE-WELL funding for National Innovation Hub APPTA. Advancing Policies and Practices in Technology and Aging. $175,000. April 2021.
    - NBHRF APPTA funding, $120,000. May 2021.

Principal Investigator (PI) Peer-Reviewed Publications

- **Atkinson, Paul** – 2 publications
    1. MacPherson, A., Petrie, D.A., Tallon, J.M. *et al.* CJEM Debate Series: what's in a name? It is simply an emergency room, and we are ERPs!. *Can J Emerg Med* (2021). https://doi.org/10.1007/s43678-021-00137-4
    2. Grant, Kiran et al. "Personal protective equipment preservation strategies in the covid-19 era: A narrative review." *Infection Prevention in Practice* vol. 3,3 (2021): 100146.

doi:10.1016/j.infpip.2021.100146

- **Brunt, Keith** – 3 publications

    1. Colpitts BH, Seaman K, Eadie AL, Brunt KR, Bouchard DR, Sénéchal M. Effects of sprint interval training on substrate oxidation in adults living with and without obesity: The i-FLEX study. Physiol Rep. 2021 Jun;9(11):e14916. doi: 10.14814/phy2.14916. PMID: 34110721; PMCID: PMC8191399.
    2. Eadie AL, Brunt KR, Herder M. Exploring the Food and Drug Administration's review and approval of Entresto (sacubitril/valsartan). Pharmacol Res Perspect. 2021 May;9(3):e00794. doi: 10.1002/prp2.794. PMID: 34087050; PMCID: PMC8177063.
    3. Rioux BV, Brunt KR, Eadie AL, Bouchard DR, Fox J, Sénéchal M. Impact of Acute Circuit Training on Irisin in Younger and Older Overweight Adults. Appl Physiol Nutr Metab. 2021 Apr 22. doi: 10.1139/apnm-2020-1087. Epub ahead of print. PMID: 33887165.

- **Kienesberger, Petra** – 1 publication

    1. D'Souza K, Yi E, Sarteshnizi RA, Udenigwe CC*, Kienesberger PC*. Food peptides in energy metabolism. Food Proteins and Peptides. Royal Society of Chemistry. June 09, 2021, https://doi.org/10.1039/9781839163425

- **Pulinilkunnil, Thomas** – 1 publication

    1. Slade L, and Pulinilkunnil, T. (2020). Regulation of autophagy - transcriptional, post-transcriptional, translational and post-translational mechanisms. Chapter 3: In: Autophagy in Health and Diseases 2E. Rothermal B, Diwan A (Eds.). Elsevier Press Publishers. (In Press).

- **Pulinilkunnil, Thomas & Kienesberger, Petra** – 1 publication

    1. **D'Souza K**, Acquah C, **Mercer A**, **Paudel Y**, Pulinilkunnil T, Udenigwe CC, Kienesberger PC*. Whey peptides exacerbate body weight gain and perturb systemic glucose and tissue lipid metabolism in male high-fat fed mice. *Food Funct. 2021 Apr 21;12(8):3552-3561. doi: 10.1039/d0fo02610g.* https://rsc.li/3wXJup4

- **Reiman, Anthony (Tony)** – 6 publications

    1. Reece DE, Masih-Khan E, Atenafu EG, Jimenez-Zepeda VH, McCurdy A, Song K, LeBlanc R, Sebag M, White D, Cherniawsky H, Reiman A, Stakiw J, Louzada ML, Kotb R, Aslam M, Gul E, Venner CP. Retrospective study of treatment patterns and outcomes post-lenalidomide for multiple myeloma in Canada. Eur J Haematol. 2021 Jun 15. doi: 10.1111/ejh.13678. Epub ahead of print. PMID: 34129703.
    2. Moreau P, Dimopoulos MA, Mikhael J, Yong K, Capra M, Facon T, Hajek R, Špička I, Baker R, Kim K, Martinez G, Min CK, Pour L, Leleu X, Oriol A, Koh Y, Suzuki K, Risse ML, Asset G, Macé S, Martin T; IKEMA study group. Isatuximab, carfilzomib, and dexamethasone in relapsed multiple myeloma (IKEMA): a multicentre, open-label, randomised phase 3 trial. Lancet. 2021 Jun 19;397(10292):2361-2371. doi: 10.1016/S0140-6736(21)00592-4. Epub 2021 Jun 4. PMID: 34097854.
    3. Cherniawsky HM, Kukreti V, Reece D, Masih-Khan E, McCurdy A, Jimenez-Zepeda VH, Sebag M, Song K, White D, Stakiw J, LeBlanc R, Reiman A, Louzada M, Aslam M, Kotb R, Gul E, Atenafu E, Venner CP. The impact of lenalidomide maintenance on second-line

chemotherapy in transplant eligible patients with multiple myeloma. Eur J Haematol. 2021 May;106(5):673-681. doi: 10.1111/ejh.13596. Epub 2021 Feb 16. PMID: 33539037.
4. Cherniawsky HM, Kukreti V, Reece D, Masih-Khan E, McCurdy A, Jimenez-Zepeda VH, Sebag M, Song K, White D, Stakiw J, LeBlanc R, Reiman A, Aslam M, Louzada M, Kotb R, Gul E, Atenafu E, Venner CP. The survival impact of maintenance lenalidomide: an analysis of real-world data from the Canadian Myeloma Research Group national database. Haematologica. 2021 Jun 1;106(6):1733-1736. doi: 10.3324/haematol.2020.259093. PMID: 33054120; PMCID: PMC8168484.
5. Venner CP, LeBlanc R, Sandhu I, White D, Belch AR, Reece DE, Chen C, Dolan S, Lalancette M, Louzada M, Kew A, McCurdy A, Monteith B, Reiman T, McDonald G, Sherry M, Gul E, Chen BE, Hay AE. Weekly carfilzomib plus cyclophosphamide and dexamethasone in the treatment of relapsed/refractory multiple myeloma: Final results from the MCRN-003/MYX.1 single arm phase II trial. Am J Hematol. 2021 May 1;96(5):552-560. doi: 10.1002/ajh.26147. PMID: 33650179.
6. Jimenez-Zepeda VH, Venner C, McCurdy A, Masih-Khan E, Atenafu EG, Sebag M, Stakiw J, Song K, LeBlanc R, Reiman T, Louzada M, Kotb R, Gul E, Reece D. Real-world outcomes with bortezomib-containing regimens and lenalidomide plus dexamethasone for the treatment of transplant-ineligible multiple myeloma: a multi-institutional report from the Canadian Myeloma Research Group database. Br J Haematol. 2021 May;193(3):532-541. doi: 10.1111/bjh.17350. Epub 2021 Feb 9. PMID: 33559897.

Presentations by Principal Investigators (PIs)

- In April 2021, Dr. Petra Kienesberger presented at the virtual Faculty of Agriculture Esteemed Speaker Series through the Dalhousie University Truro, NS campus on “Influence of bioactive lipids and dietary peptides on obesity and metabolic syndrome.”

- At the Dalhousie Family Medicine Research Day on 7 May 2021, Dr. Daniel Dutton was part of a presentation that won Best Project Award – Saint John Family Medicine Resident Project Day for the best resident research project presentation. This presentation was entitled "SHoC-IVC: Does IVC ultrasound alone predict fluid status in the spontaneously breathing patient with undifferentiated hypotension? (Dunfield, R., Dutton, D., Ross, P., Atkinson, P., Boreskie, P., Pham, C., Ali, S., Fraser, J., Lewis, D.)

- At this year’s Canadian Association of Emergency Physicians (CAEP) 2021 virtual conference, Dr. Paul Atkinson presented on:

    - Does IVC ultrasound independently predict fluid status in spontaneously breathing, undifferentiated hypotensive patients? SHoC-IVC* R. Dunfield, MD D. Dutton, PhD, P. Ross, MD, J. Fraser, BN, D. Lewis, MBChB, P. Boreskie, MD, C. Pham, MD, S. Alrobaian, MD, F. Scheuermeyer, MD, K. Chandra, MD, P. Atkinson, BSc, MBChB, MA. Dalhousie University/Saint John Regional Hospital, Saint John, NB
    - Is point-of-care ultrasound a reliable predictor of outcome during traumatic cardiac arrest? A systematic review and meta analysis from the SHoC investigators. E. Lalande, MD, T. Burwash-Brennan, MD, K. Burns, MD, T. Harris, MBA, S. Thomas, MBA, M. Woo, MD, P. Atkinson, MB.

- Emergency department presentation changes due to the COVID- 19 pandemic in Nova Scotia, Canada. T. Dahn, BSc, MD, MSc, P. Atkinson, MBChB, BAO, MA, V. Cole, BSc, D. Dutton, PhD, T. Liu, MA, H. Wiemer, MD, P. Fok, MD, PhD.
- Assessing the impact of the implementation of an advanced care paramedic program in the greater Saint John area in patients with out of hospital cardiac arrest. M. McGraw, BSc, MD, MSc, P. Atkinson, BSc, MB, J. Fraser, RNBN, T. Pishe, MD, J. Mekwan, MBBS(Lond), K. Chandra, BSc, MD, MSc.
- A Global Research Conversation: The SHoC-ED study. Paul Atkinson & Hien Lamprecht. CJEM - the voice of Canadian Emergency Medicine. Eddy Lang, Ian Stiell, Paul Atkinson.

- Dr. Atkinson also presented at the Canadian Resuscitation Outcomes Consortium (CanROC) Virtual Assembly in May 2021 on “Is pre-hospital ultrasound ready for prime time?”

Dalhousie Faculty of Medicine
New Brunswick Trainee Profile

Ashley Eadie

Name of Supervisor & Department: Dr. Keith Brunt; Department of Pharmacology

Career stage: PhD Candidate (5th year)

What did you do before coming to DMNB? I was an undergraduate student at the University of New Brunswick, studying molecular toxicology, while also serving as an engineer for the Royal Canadian Navy part-time.

Why did you choose to come to DMNB? I actually chose to come to DMNB twice: first for my MSc and then as a conscious decision again for my PhD. The first time I chose DMNB was because it offered me the chance to combine research and medicine. Throughout high school and my undergraduate degree, those career paths had always been presented as separate: either you can go to med school to pursue medicine or you can be a scientist, but you couldn't do both, and that choice was something that I really struggled with. As a first-gen student, my exposure to modern biomedical research at that time was almost non-existent, and so it wasn't until I met my now-supervisor that I began to understand exactly how a career in both medicine and research can be forged. He and DMNB were the first to show me that I could follow this path, in New Brunswick nonetheless and at a U15 research university.

The second time I chose DMNB was due to the mentorship I receive(d) from my supervisor and the example that he sets in how to be a better scientist. Becoming a better scientist means better serving patients, and that's the most important thing to me and my work. My supervisor hasn't stopped challenging himself to grow as a researcher and I can't help but be inspired to do the same.

What sparked your interest in scientific research? I don't know if I could pin it on just one answer. Science is awesome and my interest is continuously re-sparked. There's always something new to learn.

What is your research about? My research is about understanding how the heart adapts on a molecular level to different forms of stress and how we can design better therapeutic interventions to dial up these mechanisms to protect the heart from cardiovascular disease. A big part of my research focuses on a molecule called 'heme' and how its regulation in the heart changes with health and disease. Heme is most commonly recognized for giving red blood cells their distinct colour but also serves as an essential carrier of molecular oxygen. This function is especially important in cardiovascular disease given the heart's increased workload and its

inability to deliver enough oxygenated blood to meet this demand. Understanding how heme regulation changes in the heart will enable us to design better drugs to target this pathway and benefit patients suffering from cardiovascular disease.

What excites you most about your research? Getting to work with so many cool people: pharmacologists, physiologists, clinicians, pharmacists, epidemiologists, technologists, technicians, admin staff, entrepreneurs, and more.

What it is like to be a trainee at DMNB? For me, it's tough but rewarding. A big part of the job is failing forward: figuring out why experiments didn't work out the way we expected them to, and then following the data to find deeper answers about underlying physiological processes. If all of your hypotheses work out exactly as predicted, you might not be asking the right questions required to advance that field of research. It can be difficult to feel like you're wrong so often, but with training you realize that it's a necessary part of learning and bringing new discoveries closer to clinical translation. When experiments don't go as planned, it's especially important to have supportive teammates and mentors, and I've been very fortunate to find them in our lab.

If you could go back in time, what advice would you give your "younger self"? Life is too short to be anyone other than yourself. Put in the hard work, be kind and professional, but be authentically you.

Where do you see yourself five years from now? I don't know, I have terrible eyesight (and jokes). The most important thing to me is to be somewhere my skillsets can benefit patients the most. Right now, I see myself working towards that as a translational scientist. Translational scientists serve an interdisciplinary role aimed at improving the development of bench-side scientific discoveries into viable therapeutic strategies for patients, and are an important part of the research between DMNB and the NB Heart Center. Generally, this role is thought of as a bridge between fundamental (or academic) research, the clinic, and sometimes industry. However, these branches of pharmaceutical development are not the only ones necessary to bring new therapeutics to patients. Regulatory agencies such as Health Canada and the FDA also play a major role in determining whether new therapeutics will make their way to patients, and yet, are not well-connected to the other branches of pharmaceutical development via translational medicine. Taking regulatory requirements into consideration when designing new therapeutic interventions and their clinical trials is important to ensuring that patients get timely access to new medicines. This is where I think my skillsets could be of service as a translational scientist, bridging the knowledge gaps between industry, academia and the clinic.

What do you like to do in your spare time for fun? I absolutely love listening to comedy podcasts. I listen to them all the time, but especially when I'm working. A big part of my work involves writing and communicating concisely, and nobody does that better than comedians. So, listening to stand-ups deconstruct their jokes word-by-word helps me to apply those lessons to my writing. Ironically, it hasn't made my writing any funnier, but it does help me get to the crux of what I'm trying to say. I think there's also something really cool in hearing smart people be silly.

In the summer, I also like to race sailboats. Sailing can be physically and mentally demanding (there's a reason it's compared to playing chess on a race car), but I like that it continually

pushes me out of my comfort zone—it keeps me sharp and present. The free food after the race doesn't hurt either.

Dalhousie Faculty of Medicine New Brunswick Researcher Profile

Dr. Colleen O'Connell, *MD, FRCPC*
Physical Medicine and Rehabilitation

As a rehabilitation physician, Dr. Colleen O'Connell's research focuses on neuro-rehabilitation treatments and outcomes, and she works with interdisciplinary teams in treating persons with impairments due to spinal cord injury, amyotrophic lateral sclerosis, neuromuscular diseases, and multiple sclerosis. The research related to this specialty addresses a person's function and quality of life, which was a key factor in shaping Dr. O'Connell's research pursuits.

"It is a fascinating field with continual advancements in understanding how the brain and spinal cord can adapt and recover to injury," says Dr O'Connell. This, in turn, can lead to innovative therapies like robotic walking devices, electrical stimulation, and exercise programs that can help improve mobility and independence!

Internationally, there has been emerging evidence that electrically stimulating the spinal cord of someone who has had a spinal cord injury shows promise in improving symptoms such as: problematic spasticity and blood pressure regulation, reducing impairment in areas such as sexual function and sensation, and possibly recovery in paralyzed muscles. Up until recently, there have been few large collaborative trials on this intervention and no access to trials in Canada.

So, to better understand and identify important parameters (e.g. what parts of the spinal cord or nerves should be stimulated or what rehabilitation should accompany stimulation), Dr. O'Connell is part of a national collaborative of Canadian researchers, clinicians, and patients that are working together in a non-competitive way to pool their skills, knowledge, and labs to try and address these questions. "Our team extends across surgical, research, and rehabilitation programs across six provinces with two to three pilot projects being conducted over the next ten months," Dr. O'Connell shares. "Our ultimate goal is to facilitate large national trials and advance the science."

Over the course of the April to June 2021 quarter, Dr. O'Connell saw a record for the highest number of clinical trials initiated at their site for the treatment of ALS. Four new clinical drug

trials are being initiated on top of the two already in progress with each representing a different therapeutic target in the disease.

“Our small clinical trials team, Shane McCullum and Susan McCully, have worked above and beyond to allow our relatively small site to participate, and we are the only site east of Quebec for a number of these trials,” says Dr. O’Connell. “Prior to this year, we have never had more than three ALS drug trials occurring at the same time and could sometimes go a few years without even one. The state of research globally has exponentially increased in rare diseases and, with new biologics coupled with a greater understanding of the pathophysiology and genetics of motor neuron diseases, I believe there is reasons for hope in this terrible disease.”

Looking ahead, Dr. O’Connell cites an ambitious project to optimize transition to home for seniors discharged following orthopedic or neurologic admissions for surgery or rehabilitation that she is working on with a “dynamic transdisciplinary” New Brunswick team. In this unique collaboration that includes the Institute of Biomedical Engineering at UNB, Ability NB, the Anthropology Departments at UNB, the Dr. Everett Chalmers Hospital rehabilitation unit, the Stan Cassidy Centre for Rehabilitation, and the Canada East Spine Centre, they will undertake rich assessments of mobility, exercise, and activity adherences, and study the barriers to effective transitions and potential solutions through virtual care.

When it comes to research in New Brunswick, Dr. O’Connell loves the “culture of inquiry” and “the engagement of students and trainees in research” to help build capacity for the next generation. “In New Brunswick, because we are small, we can be agile, focused, and our closed-connectedness means we can quite literally knock on the door of potential collaborators,” shares Dr. O’Connell.

International work, however, is what predated Dr. O’Connell’s medical career and is what attracted her to medicine in the first place. In 2002, she founded Team Canada Healing Hands, which has been providing education, mentoring, and rehabilitation support teams in low-resourced countries for almost 20 years.

“Because of our extensive work in Haiti, I was asked to respond with an international aid organization to the Haiti earthquake, where I worked in disaster response targeting spinal cord injuries and amputation,” says Dr. O’Connell. After this experience, Dr. O’Connell’s publications on the challenges and treatment of such injuries in earthquakes and the gaps in rehabilitation response strategies in disasters have pushed the international community to recognize the important role of rehabilitation in disasters. She is now working with the World Health Organization on developing standards for management of spinal cord injuries in disasters.
In her free time, Dr. O’Connell is happy when she gets to fit in a 5 km run and then relax with a nice, local craft beer or test out a new cocktail recipe. “Kind of balances things out,” she jokes. Dr. O’Connell also loves to travel and visiting southern Africa remains a highlight for her with incredible experiences like tent camping at the base of Great Zimbabwe, kayaking on the

Zambezi, and spending time in smaller villages in Mozambique meeting and interviewing landmine survivors.

With the end of the COVID-19 pandemic in sight, Dr. O'Connell is already working on a "Where Will We Go in 2022?" list, which will involve a plane and a *long* flight!

Dalhousie Faculty of Medicine New Brunswick Researchers

1. Pamela Jarrett

NEWS

This poster won First Place for Overall Research Poster at this national meeting.Prevalence of Frailty Among Hospitalized Older Adults in New Brunswick, Canada: An Administrative Data Based Study. Molly Gallibois, Kyle Rogers, Chris Folkins, Pam Jarrett, Sandra Magalhaes. Canadian Geriatrics Society Annual Meeting (Virtual) . May 28, 2021

PRESENTATIONS

Using a social ecological approach to understand transitions from hospital to home for frail older adults. Dr. Natasha Hanson; Emily Kervin, Leanne Skerry, Dr. Pamela Jarrett, and Dr. Rose McCloskey. Canadian Geriatrics Society Annual Meeting (Virtual) . May 28, 2021

Prevalence of Frailty Among Hospitalized Older Adults in New Brunswick, Canada: An Administrative Data Based Study. Molly Gallibois, Kyle Rogers, Chris Folkins, Pam Jarrett, Sandra Magalhaes. Canadian Geriatrics Society Annual Meeting (Virtual) . May 28, 2021

2. Dr. Kavish Chandra (on behalf of the Emergency Medicine Saint John Research Team)

NEWS

May 2021 - Congratulations to Dr. Robert Dunfield for top research project in Dalhousie Family Medicine Saint John "Does IVC Ultrasound independently predict fluid status in spontaneously breathing, undifferentiated hypotensive patients? SHOC-IVC".

June 2021 - Congratulations to Dr. Melanie Johnston for Dr. Doug Sinclair Research Award in Emergency Medicine for her research project entitled "- Impact of shift Trial on Overnight Patient Flow at the Saint John Regional Emergency Department." This award is presented by the Dalhousie Department of Emergency Medicine to the most significant research project presentation at the annual Emergency Medicine Research Day.

PUBLICATIONS

MacPherson A, Petrie DA, Tallon JM, Campana B, Atkinson P. CJEM Debate Series: what's in a name? It is simply an emergency room, and we are ERPs! Can J Emerg Med [Internet]. 2021;(0123456789). Available from: https://doi.org/10.1007/s43678-021-001.

Grant K, Andruchow JE, Conly J, Lee DD, Mazurik L, Atkinson P, et al. Personal Protective Equipment Preservation Strategies in the COVID-19 Era A Narrative Review. Infect Prev Pract [Internet]. 2021;(May):100146. Available from: https://doi.org/10.1016/j.infpip.2021.100146.

Atkinson, P., Innes, G. Patient care accountability frameworks: the key to success for our healthcare system. Can J Emerg Med 23, 274–276 (2021). https://doi.org/10.1007/s43678-020-00059-7

Dahn, T., Henneberry, R. & Atkinson, P. Look inside as well as out: an unexpected cause of shortness of breath: right ventricular mass on point of care ultrasound. Can J Emerg Med 23, 252–253 (2021). https://doi.org/10.1007/s43678-020-00071-x

Olszynski, P. A., Bryce, R., Hussain, Q., Dunn, S., Blondeau, B., Atkinson, P., & Woods, R. (2021). A Novel Anatomic Landmark to Target the Left Ventricle During Chest Compressions in Cardiac Arrest. Cureus, 13(3), e13652. https://doi.org/10.7759/cureus.13652

Clouston, R., Atkinson, P., Canales, D.D., Fraser, J., Sohi, D., Lee, S., Howeltt, M.K.. Emergency department occupancy is useful as a simple real-time measure of crowding. Can J Emerg Med (2021). https://doi.org/10.1007/s43678-021-00098-8

Abelev I, Fraser J, Canales DD, Hanson N, Atkinson P, Lewis D. Medical and Undergraduate Student Perceptions on Scribing in an Emergency Department. Cureus. 2021;13(3).

Weagle K, Henneberry R J, Atkinson P (March 31, 2021) Pneumothorax Following Acupuncture. Cureus 13(3): e14207. doi:10.7759/cureus.14207

Hohl CM, Rosychuk RJ, McRae AD, Brooks SC, Archambault P, Fok PT, for the Canadian COVID-19 Emergency Department Rapid Response Network investigators et al. Development of the Canadian COVID-19 Emergency Department Rapid Response Network population-based registry: a methodology study. C open [Internet]. 2021;9(1):E261–70. Available from: http://www.ncbi.nlm.nih.gov/pubmed/33731427

3. Canada East Spine Centre

AWARDS

May 2021: Dr. John Steeves Research in Medicine Award: Faith Moore (CESC RIM Student)

PUBLICATIONS

D. Cushnie, C. Fisher, H. Hall, M. Johnson, S. Christie, C. Bailey, P. Phan, E. Abraham, A. Glennie, B. Jacobs, J. Paquet, K. Thomas, (5 Apr 2021) Mental health improvements after elective spine surgery: a Canadian Spine Outcome Research Network (CSORN) study, The Spine Journal, 2021, ISSN 1529-9430, https://doi.org/10.1016/j.spinee.2021.03.032.

Nicole Schneider, Charles Fisher, Andrew Glennie, Jennifer Urquhart, John Street, Marcel Dvorak, Scott Paquette, Raphaele Charest-Morin, Tamir Ailon, Neil Manson, Ken Thomas,

Parham Rasoulinejad, Raja Rampersaud, Chris Bailey, (5 May 2021). Lumbar degenerative spondylolisthesis: factors associated with the decision to fuse, The Spine Journal, Volume 21, Issue 5, 2021, Pages 821-828, ISSN 1529-9430, https://doi.org/10.1016/j.spinee.2020.11.010.

Glennie, R. A., Canizares, M., Perruccio, A. V., Abraham, E., Nicholls, F., Nataraj, A., Phan, P., Attabib, N., Johnson, M. G., Richardson, E., McIntosh, G., Ahn, H., Fisher, C. G., Manson, N., Thomas, K., & Rampersaud, Y. R. (21 May 2021). The impact of pathoanatomical diagnosis on elective spine surgery patient expectations: a Canadian Spine Outcomes and Research Network study, **Journal of Neurosurgery: Spine**, **35**(1), 34-41. Retrieved from https://thejns.org/spine/view/journals/j-neurosurg-spine/35/1/article-p34.xml

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. (2 July 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** (published online ahead of print 2021). Retrieved from https://thejns.org/spine/view/journals/j-neurosurg-spine/aop/article-10.3171-2020.11.SPINE201261/article-10.3171-2020.11.SPINE201261.xml

Alsuwaihel, M., El-Mughayyar, D., Archer, B., Kolyvas, G., Attabib, N. (Spring 2021) Middle Meningeal Artery Embolization for Chronic Subdural Hematoma: A Case Series. **Pan Arab Journal of Neurosurgery**, 2021; 16(1): 21-25. doi: 10.21608/pajn.2021.70751.1018

Ahmed Aoude, MEng, MD, FRCSC, Madison Litowski, BSc, MD, Sultan Aldebeyan, MSc, MD, FRCSC, Charles Fisher, MD, FRCSC, Hamilton Hall, MD, FRCSC, Neil Manson, MD, FRCSC, Christopher S. Bailey, MD, FRCSC, Henry Ahn, MD, FRCSC, Edward Abraham, MD, FRCSC, Andrew Nataraj, MD, FRCSC, Jerome Paquet, MD, FRCSC, Alexandra Stratton, MD, FRCSC, Sean Christie, MD, FRCSC, David Cadotte, MD, FRCSC, Fred Nicholls, MD, FRCSC, Alex Soroceanu, MD, FRCSC, Y. Raja Rampersaud, MD, FRCSC, Kenneth C. Thomas, MD, FRCSC. A Comparison of Patient and Surgeon Expectations of Spine Surgical Outcomes. Global Spine Journal. 2021;11(3):331-337. doi:10.1177/2192568220907603

Dr. David Lewis

Dr. David Lewis is the clinical lead for the Dalhousie Medicine New Brunswick PoCUS (Point-of-Care Ultrasound) Club, which launched in May 2021. This club is the first ever ultrasound machine lending library for medical students in Canada.

Before this initiative, students had limited time during fixed teaching sessions to practice with machines; however, this innovative ultrasound machine lending library will facilitate more practice time for medical students and offer self-directed learning material to enable skill acquisition outside the traditional classroom format.

With funding provided by the Saint John Regional Hospital Foundation (SJRHF), the Dalhousie Medicine New Brunswick PoCUS Club was able to purchase six Butterfly iQ probes, small portable ultrasound machines, which students can sign out from the PoCUS Club Library to take home and practice views taught in curriculum.

Learners who sign out one of the Butterfly iQ probes will have access to this library of self-directed learning videos, which are focused on the undergraduate medical PoCUS core curriculum. In addition to two introductory videos (one short and one longer), there are ten videos that walk viewers through a variety of scans.

These videos, created by the DMNB students who make up the PoCUS Club, were designed to be viewed on a smartphone and to support supervised and unsupervised educational practice in the classroom, clinical setting, or offsite with loaned machines.

Not only is the Dalhousie Medicine New Brunswick PoCUS Club's library of content helpful to medical students in New Brunswick, but also to anyone in the world interested in learning Point-of-Care Ultrasound.