General

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| Full Name: | Khorshid Mohammad |

Education / Certification / Fellowships

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| Degrees / Designations*(MD, PhD, FRCPC, FRCSC, CCFP, etc.)* | Institution | Year |
| NNCC diplomate  | United council of Neurological Subspecialities  | 2024 |
| Clinical Professor of Pediatrics | Cumming School of Medicine, University of Calgary | 2021 |
| FRCPC | Royal College of Physicians and surgeons of Canada | 2020 |
| FRCP | Royal College of Physicians of Edinburgh | 2018 |
| Neonatal-Perinatal Medicine Fellowship | Section of Neonatology, Dep of pediatrics, U of C  | 2014 |
| Neonatal Neurology Fellowship | Section of Neonatology, Dep of pediatrics, UBC | 2012 |
| Neonatal-Perinatal Medicine Fellowship | Section of Neonatology, Dep of pediatrics, U of C | 2010 |
| Fellow, Arab Board of Pediatrics | The Arab League | 2006 |
| Master’s Degree in Pediatrics | University of Damascus, Syria | 2005 |
| Doctor of Medicine | University of Damascus, Syria | 2001 |

Professional Employment History

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| Date *(last 10 yrs ONLY)* | Institution | Rank or Position |
| 2014/09/01 – Present | Alberta Health Services, Calgary | Staff neonatologist  |
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Time Allocation

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| Clinical %: | 60% | Education %: | 10 | Administration %: | 5 | Research %: | 25 |

Administration (Committees, Leadership Roles, Innovation)

Local

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| Leadership/Committee  | Institution/Organization | Role*(i.e. member, chair, advisor)* | Years Active |
| Neonatology Site lead | Alberta Children’s Hospital | Site lead | Since 2021 |
| Neurocritical care program | Alberta Children’s Hospital | NICU lead | Since 2016 |
| Neonatal Neuro-Intensive care program  | Section of neonatology, Dep of pediatrics, Calgary | Director |  2014-2015 |
| Harvey Sarnat Neonatal Neuro-critical care fellowship  | Section of neonatology, Dep of pediatrics, Calgary | Director | 2025 |
| Innovation in Neonatal Neuro-critical care lab | Section of neonatology, Dep of Pediatrics, U of C | Founder and director  | Since 2014 |
| Neonatal Neuro-Critical Care | Section of neonatology, Dep of pediatrics, Calgary | Past chair and current member | Since 2015 |
| Alberta Children Hospital NICU Advisory  | Section of neonatology, Dep of pediatrics, Calgary | Current chair and past member | Since 2014 |
| Targeted Neonatal Echocardiography | Section of neonatology, Dep of pediatrics, Calgary | Member | Since 2013 |
| Sonographic Clinical Assessment of the Newborn (SCAN) | Section of neonatology, Dep of pediatrics, Calgary | Founding and committee member | Since 2018 |
| Alberta Children Hospital NICU Steering  | Section of neonatology, Dep of pediatrics, Calgary | Member | Since 2014 |
| Alberta Children Hospital Gender equity taskforce | Alberta Children’s Hospital | Member  | 2021 |
| Neonatal Quality Improvement  | Section of neonatology, Dep of pediatrics, Calgary | Member | Since 2014 |
| Neonatology leadership advisory  | Section of neonatology, Dep of pediatrics, Calgary | Member | Since 2022 |
| Quality assurance  | Alberta Children’s Hospital | Member  | Since 2022 |

National

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| Committee Name | Institution/Organization | Role*(i.e. member, chair, advisor)* | Years Active |
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| Newborn Brain health | Canadian Preterm Birth Network | Co-Chair |  2014-2023 |
| Steering committee  | Evidence based Practice to Improve Quality (EPIQ) | Member | Since 2014 |
| Preterm brain injury standardization taskforce  | Canadian Preterm Birth Network | Lead  | 2021 |
| Term brain injury standardization taskforce | Canadian Neonatal Network | Co-lead | Since 2022 |
| Neonatal Neuro-Critical Care accreditation taskforce | Royal College of physicians and Surgeons of Canada | Lead  | Since 2021 |
| Neonatal Neuro-Critical Care AFC diploma accreditation working group  | Royal College of physicians and Surgeons of Canada | Chair | 2023 |

Additional Leadership Roles:

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| International: Chair: Education committee, Newborn Brain Society. Member: Pan-American Hemodynamic and TnECHO Collaborative group; Member: Neonatal Neuro-Critical care special interest group. Member: Board of directors Newborn Brain Society committee. Member: Scientific Committee, 13th and 14th international Newborn Brain Conference. Co-Chari: North America Neonatal Neuro-Critical Care accreditation taskforce. |

Innovation & Personal Role Modeling:

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| Took neonatal neurocritical care from a concept by my program director and section head in 2010 to establishing comprehensive competitive program with formal line of clinical service, AFC accredited fellowship training, strong impactful QI projects and strong research with national and international presence. I identify skill sets that requires timely and frequent implementation then create simulation and train the frontline provider to perform it. some examples: training nurses point of care cranial ultrasonography and reservoir tapping through simulations invented locally. Training nurses full EEG set up which resulted in a 24/7 brain monitoring service. Teaching frontline providers targeted neuro exam to improve HIE identification through VR model, neuro dol and smartphones applications invented locally. I have led the creation of CME accredited online neuro teaching module which has been used by > 800 participants from around the world. I built on these modules to teach groups remotely neuro skill sets and help them establish NNCC service/programs. When pandemic hit , I championed starting with the education committee a series of weekly neuro webinars which became the highlight of the newborn brain society. We have now a library of > 100 recorded talks which we are converting to teaching modules that alights with the NNCC training accreditation effort. NNCC accreditation project was another initiative I championed with stake holder from the newborn brain society, engaged centers from Canada and got the application approved by the royal college of physicians and Surgeons of Canada. I am passionate about what I do. For example , I changed my car’s license plat to “ Drive IVH to zero” after our QI project.  |

Research Funding *(Status PI and/or CO-investigator; amount you have personally to use. Separate peer reviewed and non-peer reviewed.)*

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| Date(last 10 yrs) | Agency | Title | Amount(Total/Personal amount) | PeerReviewed(Y/N) |
| 2022 | Department of Pediatrics Innovation Award | Creation of a new Clinical Pathway and Care Model for complex carebabies in the Alberta Children’s Hospital Neonatal Intensive Care Unit | 2,525 CAD | Yes |
| 2021CO- Principal Investigator | Calgary Health foundation project grant | Alberta Provincial Surveillance Program for Moderate to Severe Neonatal Hypoxic-ischemic Encephalopathy (HIE | 894,336 CAD | Yes |
| 2021CO-Applicant | Diabetes Association | Closed-loop Insulin delivery by glucose Responsive Computer algorithms In Type 1 diabetes pregnancies (CIRCUIT): Internal Pilot Trial | 300,00 CAD | Yes |
| 2021Supervisor | Brain Create, | Ventricular surface area measurement to better predict PHVD outcomes | 6000 CAD | Yes |
| 2020CO-Applicant | HIROC safety Grant | Alberta Provincial Surveillance Program for Moderate to severe Hypoxic-ischemic Encephalopathy (HIE), | 17,500 CAD | Yes |
| 2020Co-applicant | Calgary Health foundation project grant | Prediction, Prevention, and interventions for Preterm birth: the P3 cohort. | 5,000,000 CAD | Yes |
| 2020Principal Investigator | Multiple sources | Point of Care ultrasound simulator to support Neonatal transportation training | 28169.00 CAD | No |
| 2019Principal Investigator | Innovation for health 2019 health hack competition | Neonatal neurological examination Mannequin | 5000.00 CAD | Yes |
| 2019Co-applicant | Maternal Newborn Child & Youth Strategic Clinical Network™ (MNCY SCN™) Health Outcomes Improvement Fund II (HOIF II) Total | Implementation of the Prechtl Qualitative Assessment of General Movements (GMA) in the Calgary Zone to facilitate the early diagnosis of cerebral palsy in high-risk neonates: A pilot quality improvement study | 144,553.00 CAD | Yes |
| 2019Principal Investigator | CIHR | Respiratory management of extremely preterm neonates: Evidence generation and implementation by comparative effectiveness research (CER) using real world data (RWD) from practice-based researchnetwork (PBRN) | 451,352 CAD | Yes |
| 2018Principal Investigator | Section of Neonatology Equipment Grant | High Fidelity Ultrasound Simulation to support “Just in Time” Point of Care Neonatal Ultrasound Teaching. | 10,000 CAD | Yes |
| 2018-2019Co-Applicant | PGME | Sonographic Clinical Assessment of the Newborn Program. | 32,000 CAD | Yes |
| 2015 - 2016Principal Investigator | Department of Pediatrics Innovation Award | The impact of arterial pressure of carbon dioxide (PaCO2) during the first 72 hours of life in extremely preterm neonates: Risk stratification for developing intraventricular hemorrhage. | 21,000 CAD | Yes |
| 2015-2016Principal Investigator | Department of Pediatrics Innovation Award | The prediction of adverse neurological outcome in children who receive therapeutic hypothermia for hypoxic ischemic encephalopathy. | 21,000 CAD | Yes |
| 2014-2015Co-applicant | Department of Pediatrics Innovation Award | Impact of red cell transfusion on superior mesenteric artery flow patterns and intestinal oxygenation in fed preterm neonates (SPARTAN: SMA Pattern Related to Transfusion in Neonates). | 21,000 CAD | Yes |

Scholarly Publications *(Indicate total number of each and list last 10 years OR 10 most important papers. Indicate PI, Co-PI, trainees)*

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| Peer-reviewed articles: | 54 | Non-peer reviewedarticles: | 0 | Abstracts: | 81 | Books authored: | 0 | Chapters: | 2 |

Selected Publication list: full list link <https://www.ncbi.nlm.nih.gov/myncbi/khorshid.mohammad.1/bibliography/public/>

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| **First author papers:** Mohammad K, Reddy Gurram Venkata SK, Wintermark P, Farooqui M, Beltempo M, Hicks M, Zein H, Shah PS, Garfinkle J, Sandesh S, Cizmeci MN, Fajardo C, Guillot M, de Vries LS, Pinchefsky E, Shroff M, Scott JN. Consensus Approach for Standardization of the Timing of Brain Magnetic Resonance Imaging and Classification of Brain Injury in Neonates With Neonatal Encephalopathy/Hypoxic-Ischemic Encephalopathy: A Canadian Perspective. Pediatr Neurol. 2025 May;166:16-31. doi: 10.1016/j.pediatrneurol.2025.01.021. Epub 2025 Feb 12. PubMed PMID: 40048833.Verschuur AS, Tax CMW, Nijholt IM, van Wezel-Meijler G, Hendson L, Zein H, Scotland J, King R, Mohammad K, Boomsma MF, Leemans A, Leijser LM. Diffusion MRI tractography with along-tract profiling reveals subtle neurodevelopmental differences between moderate and late preterm infants. Eur J Radiol. 2025 Apr 5;187:112098. doi: 10.1016/j.ejrad.2025.112098. [Epub ahead of print] PubMed PMID: 40220737.Peeples ES, Mietzsch U, Molloy E, deVeber G, Mohammad K, Soul JS, Guez-Barber D, Pilon B, Chau V, Bonifacio S, Afifi J, Craig A, Wintermark P. Data Collection Variability Across Neonatal Hypoxic-Ischemic Encephalopathy Registries. J Pediatr. 2025 Apr;279:114476. doi: 10.1016/j.jpeds.2025.114476. Epub 2025 Jan 23. PubMed PMID: 39863078.Musiime GM, Mohammad K, Momin S, Kwong GPS, Riva-Cambrin J, Scott J, Zein H, Hendson L, Leijser LM. Prediction of post-hemorrhagic ventricular dilatation trajectory using a growth mixture model in preterm infants. Pediatr Res. 2025 Jan;97(1):213-221. doi: 10.1038/s41390-024-03396-w. Epub 2024 Jul 9. PubMed PMID: 38982166.Lee KS, Massaro A, Wintermark P, Soul J, Natarajan G, Dizon MLV, Mietzsch U, Mohammad K, Wu TW, Chandel A, Shenberger J, DiGeronimo R, Peeples ES, Hamrick S, Cardona VQ, Rao R. Practice Variations for Therapeutic Hypothermia in Neonates with Hypoxic-ischemic Encephalopathy: An International Survey. J Pediatr. 2024 Nov;274:114181. doi: 10.1016/j.jpeds.2024.114181. Epub 2024 Jun 29. PubMed PMID: 38950817.Mohammad K, Craig AK, Chang T, Tam EWY, Ayed M, de Vries LS, El-Dib MA, Esser MJ, Ferriero DM, Hellström-Westas L, Miller SP, Soul JS, Vollmer B, Glass HC, Smyser CD. Training in neonatal neurocritical care: a proposal for a hybrid model of competence by design and time-based methods. Pediatr Res. 2024 Sep;96(4):1013-1020. doi: 10.1038/s41390-021-01727-9. Epub 2021 Sep 18. PubMed PMID: 34537823.Mohammad K. Standardizing clinician training and patient care in the neonatal neurocritical care: A step-by-step guide. Semin Perinatol. 2024 Aug;48(5):151924. doi: 10.1016/j.semperi.2024.151924. Epub 2024 Jun 13. Review. PubMed PMID: 38897827.Mohammad K, Thomas S, Joseph CJ, O'Keef C, Leswick L, Montpetit J, Fiedrich E, Rombough B, Thomas S. Structured Referral Call Handling Process Improves Neonatal Transport Dispatch Times. Am J Perinatol. 2024 May;41(S 01):e2209-e2215. doi: 10.1055/s-0043-1771016. Epub 2023 Jul 10. PubMed PMID: 37429321.Mohammad K, Molloy E, Scher M. Training in neonatal neurocritical care: A case-based interdisciplinary approach. Semin Fetal Neonatal Med. 2024 Feb;29(1):101530. doi: 10.1016/j.siny.2024.101530. Epub 2024 Apr 11. Review. PubMed PMID: 38670881.Molloy EJ, El-Dib M, Soul J, Juul S, Gunn AJ, Bender M, Gonzalez F, Bearer C, Wu Y, Robertson NJ, Cotton M, Branagan A, Hurley T, Tan S, Laptook A, Austin T, Mohammad K, Rogers E, Luyt K, Wintermark P, Bonifacio SL. Neuroprotective therapies in the NICU in preterm infants: present and future (Neonatal Neurocritical Care Series). Pediatr Res. 2024 Apr;95(5):1224-1236. doi: 10.1038/s41390-023-02895-6. Epub 2023 Dec 19. Review. PubMed PMID: 38114609; PubMed Central PMCID: PMC11035150.Ismail R, Vorhies E, Mohammad K, Soraisham A, Scott J, Stritzke A. Persistent pulmonary hypertension and short-term neurological outcomes in infants with moderate to severe hypoxic ischemic encephalopathy. J Neonatal Perinatal Med. 2024;17(4):597-605. doi: 10.3233/NPM-230032. PubMed PMID: 39213094.Dunbar M, Norris A, Craig BT, Chaput K, Mohammad K, Cole L, Esser MJ, Caughey A, Carlson H, Kirton A. Relationship Between Neonatal Brain Injury and Objective Measures of Head Trauma: A Case-Control Study. Neurology. 2023 Dec 4;101(23):e2401-e2410. doi: 10.1212/WNL.0000000000207766. PubMed PMID: 37848334; PubMed Central PMCID: PMC10752635.Salaets T, Lacaze-Masmonteil T, Hokuto I, Gauldin C, Taha A, Smits A, Thewissen L, Van Horebeek I, Shoraisham A, Mohammad K, Suzuki M, Komachi S, Michels K, Turner MA, Allegaert K, Lewis T. Prospective assessment of inter-rater reliability of a neonatal adverse event severity scale. Front Pharmacol. 2023;14:1237982. doi: 10.3389/fphar.2023.1237982. eCollection 2023. PubMed PMID: 37745081; PubMed Central PMCID: PMC10512550.Momin S, Thomas S, Zein H, Scott JN, Leijser LM, Vayalthrikovil S, Yusuf K, Paul R, Howlett A, Mohammad K. Comparing Three Methods of Therapeutic Hypothermia Among Transported Neonates with Hypoxic-Ischemic Encephalopathy. Ther Hypothermia Temp Manag. 2023 Sep;13(3):141-148. doi: 10.1089/ther.2022.0048. Epub 2023 Mar 24. PubMed PMID: 36961391.Dersch-Mills D, Howlett A, Lind J, Marchuk A, Mohammad K. Impact of dexmedetomidine in conjunction with a weaning protocol on post-surgical opioid use in a neonatal intensive care unit. Pharmacotherapy. 2023 Jul;43(7):632-637. doi: 10.1002/phar.2787. Epub 2023 Mar 19. PubMed PMID: 36862038.Mohammad K, McIntosh S, Lee KS, Beltempo M, Afifi J, Tremblay S, Shah P, Wilson D, Bodani J, Khurshid F, Makary H, Ng E, Wintermark P. Variations in care of neonates during therapeutic hypothermia: call for care practice bundle implementation. Pediatr Res. 2023 Jul;94(1):321-330. doi: 10.1038/s41390-022-02453-6. Epub 2023 Jan 9. PubMed PMID: 36624286.Molloy EJ, El-Dib M, Juul SE, Benders M, Gonzalez F, Bearer C, Wu YW, Robertson NJ, Hurley T, Branagan A, Michael Cotten C, Tan S, Laptook A, Austin T, Mohammad K, Rogers E, Luyt K, Bonifacio S, Soul JS, Gunn AJ. Neuroprotective therapies in the NICU in term infants: present and future. Pediatr Res. 2023 Jun;93(7):1819-1827. doi: 10.1038/s41390-022-02295-2. Epub 2022 Oct 4. Review. PubMed PMID: 36195634; PubMed Central PMCID: PMC10070589.Wood S, Skiffington J, Brant R, Crawford S, Hicks M, Mohammad K, Mrklas KJ, Tang S, Metcalfe A. The REDUCED trial: a cluster randomized trial for REDucing the utilization of CEsarean delivery for dystocia. Am J Obstet Gynecol. 2023 May;228(5S):S1095-S1103. doi: 10.1016/j.ajog.2022.10.038. Epub 2023 Mar 16. PubMed PMID: 37164490.Soul JS, Glass HC, Mohammad K, Ment LR, Smyser CD, Bonifacio SL, Massaro AN, El-Dib M. Continuous EEG monitoring still recommended for neonatal seizure management: commentary on NEST trial. Pediatr Res. 2023 Feb;93(3):469-470. doi: 10.1038/s41390-022-02138-0. Epub 2022 Jun 9. PubMed PMID: 35681096.Woodward KE, Murthy P, Mineyko A, Mohammad K, Esser MJ. Identifying Genetic Susceptibility in Neonates With Hypoxic-Ischemic Encephalopathy: A Retrospective Case Series. J Child Neurol. 2023 Feb;38(1-2):16-24. doi: 10.1177/08830738221147805. Epub 2023 Jan 10. Review. PubMed PMID: 36628482.Palliyalil S, Bashir RA, Zein H, Murthy P, Flores-Sarnat L, Sarnat HB, Mohammad K. The Utility of Simulation-Based Training in Teaching Frontline Providers Modified Sarnat Encephalopathy Examination: A Randomized Controlled Pilot Trial. Pediatr Neurol. 2023 Feb;139:70-75. doi: 10.1016/j.pediatrneurol.2022.11.009. Epub 2022 Nov 25. PubMed PMID: 36543025.Alburaki W, Scringer-Wilkes M, Dawoud F, Oliver N, Lind J, Zein H, Leijser LM, Esser MJ, Mohammad K. Feeding during therapeutic hypothermia is safe and may improve outcomes in newborns with perinatal asphyxia. J Matern Fetal Neonatal Med. 2022 Dec;35(25):9440-9444. doi: 10.1080/14767058.2022.2041594. Epub 2022 Feb 14. PubMed PMID: 35164630.selectEspinoza ML, Brundler MA, Hasan SU, Mohammad K, Momin S, Al Shaikh B, Yusuf K. Placental pathology as a marker of brain injury in infants with hypoxic ischemic encephalopathy. Early Hum Dev. 2022 Nov;174:105683. doi: 10.1016/j.earlhumdev.2022.105683. Epub 2022 Oct 5. PubMed PMID: 36215816.Mohammad K, Momin S, Murthy P, Zein H, Scott JN, Mehrem AA, Ghosh A, Javadyan A, Awad EA, Venkata SKRG, Paul R, Rombough B, Bolderheij L, Dossani S, Montpetit J, Eshemokhai P, Fiedrich E, Thomas S. Impact of quality improvement outreach education on the incidence of acute brain injury in transported neonates born premature. J Perinatol. 2022 Oct;42(10):1368-1373. doi: 10.1038/s41372-022-01409-2. Epub 2022 May 4. PubMed PMID: 35508716.Benlamri A, Murthy P, Zein H, Thomas S, Scott JN, Abou Mehrem A, Esser MJ, Lodha A, Noort J, Tang S, Metcalfe C, Kowal D, Irvine L, Scotland J, Leijser LM, Mohammad K. Neuroprotection care bundle implementation is associated with improved long-term neurodevelopmental outcomes in extremely premature infants. J Perinatol. 2022 Oct;42(10):1380-1384. doi: 10.1038/s41372-022-01443-0. Epub 2022 Jul 13. PubMed PMID: 35831577.Gurram Venkata SKR, Shah PS, Beltempo M, Yoon E, Wood S, Hicks M, Daboval T, Wong J, Wintermark P, Mohammad K. Outcomes of infants with hypoxic-ischemic encephalopathy during COVID-19 pandemic lockdown in Canada: a cohort study. Childs Nerv Syst. 2022 Sep;38(9):1727-1734. doi: 10.1007/s00381-022-05575-8. Epub 2022 Jun 8. PubMed PMID: 35676388; PubMed Central PMCID: PMC9177131.Dersch-Mills D, Mohammad K, Howlett A. An assessment of the impact of dexmedetomidine on opioid use in a neonatal intensive care unit. J Matern Fetal Neonatal Med. 2022 Aug;35(15):2836-2842. doi: 10.1080/14767058.2020.1803263. Epub 2020 Aug 12. PubMed PMID: 32787488.Beltempo M, Wintermark P, Mohammad K, Jabbour E, Afifi J, Shivananda S, Louis D, Redpath S, Lee KS, Fajardo C, Shah PS. Variations in practices and outcomes of neonates with hypoxic ischemic encephalopathy treated with therapeutic hypothermia across tertiary NICUs in Canada. J Perinatol. 2022 Jul;42(7):898-906. doi: 10.1038/s41372-022-01412-7. Epub 2022 May 12. PubMed PMID: 35552529.Gurram Venkata SKR, Srivastava A, Murthy P, Scott JN, Zein H, Leijser L, Ghosh A, Momin S, Thomas S, Mohammad K. Hemodynamic Quality Improvement Bundle to Reduce the Use of Inotropes in Extreme Preterm Neonates. Paediatr Drugs. 2022 May;24(3):259-267. doi: 10.1007/s40272-022-00502-5. Epub 2022 Apr 26. PubMed PMID: 35469390.Campbell-Yeo M, Eriksson M, Benoit B. Assessment and Management of Pain in Preterm Infants: A Practice Update. Children (Basel). 2022 Feb 11;9(2). doi: 10.3390/children9020244. Review. PubMed PMID: 35204964; PubMed Central PMCID: PMC8869922.Abend N, Adams E, Al Balushi A, Alburaki W, Appendino J, Barbosa VS, Birca A, Bonifacio S, Branagan A, Chang T, Chowdhury R, Christou H, Chu C, Cilio MR, Comani S, Corsi-Cabrera M, Croce P, Cubero-Rego L, Dawoud F, de Vries L, Dehaes M, Devane D, Duncan A, El Ters N, El-Dib M, Elshibiny H, Esser M, Fairchild K, Finucane E, Franceschini MA, Gallagher A, Ghosh A, Glass H, Venkata SKRG, Baillet TH, Herzberg E, Hildrey E, Hurley T, Inder T, Jacobs E, Jefferies K, Jermendy A, Khazaei M, Kilmartin K, King G, Lauronen L, Lee S, Leijser L, Lind J, Llaguno NS, Machie M, Magalhães M, Mahdi Z, Maluomi J, Marandyuk B, Massey S, McCulloch C, Metsäranta M, Mikkonen K, Mohammad K, Molloy E, Momin S, Munster C, Murthy P, Netto A, Nevalainen P, Nguyen J, Nieves M, Nyman J, Oliver N, Peeters C, Pietrobom RFR, Pijpers J, Pinchefksy E, Ping YB, Quirke F, Raeisi K, Ricardo-Garcell J, Robinson J, Rodrigues DP, Rosati J, Scott J, Scringer-Wilkes M, Shellhaas R, Smit L, Soul J, Srivastava A, Steggerda S, Sunwoo J, Szakmar E, Tamburro G, Thomas S, Toiviainen-Salo S, Toma AI, Vanhatalo S, Variane GFT, Vein A, Vesoulis Z, Vilan A, Volpe J, Weeke L, Wintermark P, Wusthoff C, Zappasodi F, Zein H, Zempel J. 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PubMed PMID: 35431189.Balashova E, Beaulieu O, Benhmida I, Birca A, Boylan G, Carkeek K, Chowdhury R, Cilio MR, Consoli A, Cote Corriveau G, Cuddyer D, Degtyarev D, Dehaes M, Dempsey E, Dereymaeker A, Desnous B, El-Dib M, Elsayed E, Feldman HA, Finn D, Franceschini MA, Freeman S, Gagnon MM, Gagnon M, Garvey A, Ghosh A, Golubtsova Y, Grant PE, Hay SC, Hermans T, Herzberg E, Hsiao CH, Iennaco M, Inder T, Ionov O, Kaya K, Keister F, Kemigisha M, Kirtbaya A, Lee S, Leijser L, Liao S, Lin PY, Lippman R, Livingstone V, Luu TM, Magombe J, Mahdi Z, Marandyuk B, Martin A, Mathieson S, Mbabazi E, Mohammad K, Moore M, Mulondo R, Munster C, Murray D, Nalule E, Natukwatsa D, Naulaers G, Noroozi M, Nsubuga B, O'Toole J, Pavel A, Peterson M, Pinchefsky E, Playter K, Queally J, Rajaram A, Ryndin A, Schiff S, Seruwu M, Sharafutdinova D, Sheldon Y, Simard MN, Sims J, Steele T, Stritzke A, Sunwoo J, Sutin J, Tatz J, Vadset T, Vesoulis Z, Vyas R, Wabukoma M, Walsh B, Wandukwa J, Warf B, Whitehead H, Woglom M, Yen FY, Zampolli L, Zavriyev AI, Zein H, Zimmermann B, Zubkov V. Proceedings of the 13th International Newborn Brain Conference: Other forms of brain monitoring, such as NIRS, fMRI, biochemical. J Neonatal Perinatal Med. 2022;15(2):453-465. doi: 10.3233/NPM-229005. 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Teaching *(Last 10 yrs)*

Local (undergraduate, residents, specialty, CME)

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| Presentation / CourseTitle / Cmte Name | Role / Contribution | Location | Date |
| AHD/Neurology Club | Preceptor | Calgary | 07/2013 |
| AHD/Hemodynamic Club | Preceptor | Calgary | 08/2013 |
| AHD/Hemodynamic club | Preceptor | Calgary | 12/2013 |
| AHD/Neurology Club | Preceptor | Calgary | 01/2014 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 02/2014 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 03/2014 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 04/2014 |
|  Neonatal Neuro-critical care | Preceptor | Calgary | 04/2014 |
| Pathophysiology of shock in Neonate | Preceptor | Calgary | 05/2014 |
| Hemodynamics and brain injury in preterm infant | Preceptor | Calgary | 05/2014 |
| Hemodynamic Club | Preceptor | Calgary | 06/2014 |
| Milrinone | Preceptor | Calgary | 06/2014 |
| Neurology Club: How to read MRI (basics) | Preceptor | Calgary | 07/2014 |
| AHD/Neurology Club | Preceptor | Calgary | 09/2014 |
| AHD/Neurology Club | Preceptor | Calgary | 01/2015 |
| OSCE sessions and Critical Appraisal | Preceptor | Calgary | 04/2015 |
| AHD/Hemodynamic Club | Preceptor | Calgary | 05/2015 |
| Cardiac Ultrasound Workshop | Preceptor | Calgary | 05/2015 |
| Neonatal Neurocritical care rounds | Preceptor | Calgary | 06/2015 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 07/2015 |
| Neonatal Neurocritical Care Rounds | Preceptor | Calgary | 07/2015 |
| Hemodynamic Club (TTTS) | Preceptor | Calgary | 09/2015 |
| Sonographic Clinical Assessment of the Newborn (SCAN) | Preceptor | Calgary | 09/2015 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 01/2016 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 02/2016 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 04/2015 |
| AHD/Hands-on TnE Session | Preceptor | Calgary | 05/2016 |
| Hemodynamics & Brain Injury in Preterm Infants | Preceptor | Calgary | 05/2016 |
| IVH Bundle | Preceptor | Calgary | 07/2016 |
| AHD/Neurology Club | Preceptor | Calgary | 09/2016 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 10/2016 |
| Basic measurements of cardiac function | Preceptor | Calgary | 01/2017 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 01/2017 |
| MRI Interpretation | Preceptor | Calgary | 01/2017 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 02/2017 |
| Neurology case discussion | Preceptor | Calgary | 03/2017 |
| Cross CA Rounds - Impact of Neonatal Neurocritical care program | Preceptor | Calgary | 09/2017 |
| AHD/Neurology Club | Preceptor | Calgary | 09/2017 |
| AHD/SOE | Preceptor | Calgary | 11/2017 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 01/2018 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 04/2018 |
| Challenging Neonatal Neurology Cases | Preceptor | Calgary | 04/2018 |
| AHD/IVH Bundle | Preceptor | Calgary | 07/2018 |
| AHD/Neurology Club | Preceptor | Calgary | 09/2018 |
| AHD/aEEG Interpretation | Preceptor | Calgary | 10/2018 |
| AHD/OSCE Practice Session | Preceptor | Calgary | 12/2018 |
| AHD/Neurology Club HIE Pt I | Preceptor | Calgary | 02/2019 |
| AHD/Neurophysiology | Preceptor | Calgary | 04/2019 |
| AHD/Neurology Club HIE Pt II | Preceptor | Calgary | 05/2019 |
| AHD/aEEG | Preceptor | Calgary | 10/2019 |
| Cross Rounds-preterm neuroprotection-where do we stand today? | Preceptor | Calgary | 10/2019 |
| Neonatal Neurology case discussion | Preceptor | Calgary | 12/2019 |
| Journal Club | Preceptor | Calgary | 03/2020 |
| Practical approach to neonatal MRI | Preceptor | Calgary | 09/2020 |
| Structured Oral Exam | Preceptor | Calgary | 11/2020 |
| Neuroimaging in Neonates – Brief review of cases | Preceptor | Calgary | 10/2021 |
| Seizure or no seizure what a headache | Preceptor  | Calgary | 06/2022 |
| Introduction to Neurology | Preceptor | Calgary | 08/2022 |
| Neonatal Seizures and Case discussion | Preceptor | Calgary | 02/2023 |

National

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| Presentation / CourseTitle / Cmte Name | Role / Contribution | Location | Date |
| Cranial Ultrasound Course | Co-organizer and instructor | Calgary | 09/2022 |
| Newborn Brain Society weekly webinars | Director | Calgary | 04/2020 |
| Building a Neonatal Neuro-Critical Care program, Calgary experience, Ste-Justine hospital | Invited Speaker | Montreal | 02/2021 |
| Ultrasound scanning protocols, Pocus Neo | Invited Speaker | Winnipeg | 10/2019 |
| Other forms of brain abnormalities, Pocus Neo | Invited Speaker | Winnipeg | 10/2019 |
| The drive IVH to zero project: lessons learned over 6 years, McMaster University, Canada | Invited Speaker | Hamilton | 02/2019 |
| Decreasing brain injury diagnosis variability project: EPIQ meeting | Invited Speaker | Toronto | 02/2019 |
| Prevention of preterm brain injury: a hemodynamics prospective, hemodynamic webinar | Invited Speaker | Virtual | 10/2018 |
| What is new in Neonatology Management? Neonatal Hypoxic-Ischemic Encephalopathy, Rural Videoconference Series | Invited Speaker | Calgary | 09/2018 |
| HIE Cases with Unusual Outcomes: What is The Best Way to Predict? Neonatal Neuro-Critical Care Special Interest Group Webinar series | Invited Speaker | Calgary | 09/2018 |
| The impact of Neonatal Neuro-Critical care program on short term outcomes in term neonates, CANN national conference | Invited Speaker | Calgary | 04/2018 |

International

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| Presentation / CourseTitle / Cmte Name | Role / Contribution | Location | Date |
| 18th hot topics in neonatal medicine : Hie identification: can we do better. Care Bundle for IVH Prevention, Mother’s own milk and the brain, Training in Neonatal neuro-critical care  , hands on cranial ultrasound and aEEG workshops | Speaker and instructor | Saudi Arabia  | Feb 14-16 2023 |
| 14th International Newborn Brain conference. Hand on Simulation- How to do cUS?, Next Steps in Evolution of Neuroprotective Bundles in Preterm Infants, Training in Neonatal Neurocritical Care | Speaker, instructor and scientific committee member  | USA | Feb 8-11, 2023 |
| First Taif International Neonatology Summit, To cool or not to cool, Neuroprotection in preterm infants, Hemodynamic management in sick newborn & CFM workshop | Invited Speaker | Saudi Arabia | 10/2022 |
| 13th International Arab Neonatal Care Conference: neonatal seizure, clinical diagnosis and management | Invited Speaker | Dubai | 09/2022 |
| NNCC training and accreditation: 13th International Newborn Brain conference | Invited Speaker | virtual | 02/2022 |
| Newborn Brain health annual report: EPIQ conference | Invited Speaker | Virtual | 02/2022 |
| IVH prevention a QI perspective: The International Congress of Pediatrics (ICP), Tehran University of Medical Sciences (TUMS), | Invited Speaker | Tehran, Iran | 02/2022 |
| Neonatal Care Bundle to Reduce Intraventricular Hemorrhage in Preterm Newborns, 17th Hot Topics in Neonatal Medicine | Invited Speaker | Saudi Arabia | 02/2022 |
| IVH prevention: a quality improvement perspective, Newborn Brain Society weekly webinars | Invited Speaker | Virtual | 12/2021 |
| Neuroprotection in Preterm Infants, Learn from the legends series | Invited Speaker | India | 12/2021 |
| Prevention of IVH and treatment of posthemorrhagic hydrocephalus, Neo Brain Brazil Highlights | Invited Speaker | Brazil | 11/2021 |
| Brain injury is not a death sentence: how neuroplasticity can heal the young brain, 12th international ARAB NEONATAL CARE Conference | Invited Speaker | Dubai | 09/2021 |
| Preterm brain injury prevention: 4th Asia Neonatal Symposium & 8th Shanghai Neonatal Forum | Invited Speaker | Asia | 07/2021 |
| Newborn brain plasticity through stories of resiliency, Preemie chat, Canadian Premature Babies Foundation. | Invited Speaker | Virtual | 09/2021 |
| Hypoxic Ischemic Encephalopathy management, PEDIATRIC AND NEONATAL MULTIDISCIPLINARY DEVELOPMENTAL PROGRAMME OF PAKISTAN | Invited Speaker | Pakistan | 01/2021 |

Other Educational Efforts

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| Recently I have been involved in virtual education for pediatricians inside Syria through didactic lectures and mentoring. I am mentoring four pediatricians inside Syria who want to pursue neonatology training. I helped in the development of the OSCE examination for them and was one of the examiners |

Selected Academic Awards and Honors

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| * Pediatric PGME Clinical Teacher Recognition (Gold Lego award) | 2016-2021
* Academic Certification in Neonatal Perinatal Medicine, Royal College of Physicians and Surgeons of Canada| 2020
* Emerging Leader in Neonatology Award, Canadian Pediatric Society| 2020
* Innovation 4 health 2019 health hack competition: best clinical research innovation model| 2019
* Neonatal fellowship teacher of the year award, University of Calgary | 2020
* Neonatal fellowship teacher of the year award, University of Calgary | 2019
* Neonatal fellowship teacher of the year award, University of Calgary | 2016
* Neonatal fellowship teacher of the year award, University of Calgary | 2015
* Class of 2015 Clerkship Award for Excellence in Clinical Teaching, university of Calgary | 2015
* Department of Pediatric Fellow Research Award, University of British Columbia | 2012
* First star educator at Rocky View General Hospital Calgary NICU Jul 2010
* Award for Most clinically applicable study, Research Methodology Course, Alberta Children Hospital |2009
* Certificate of Appreciation, King Abdul Aziz National Guard Hospital and Ministry of Health, Saudi Arabia | 2008
* Certificate of Appreciation, Royal Commission Medical Centre, Saudi Arabia | 2007
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