

Vancouver General Hospital

# VGH Emergency Medicine Research Newsletter

## Over the last year...

*The Emergency  
Department Research  
Division has  
completed another  
productive year!*

16

Selected Presentations



44

Publications in peer  
reviewed journals

30

Research Assistants &  
Student Volunteers

4

New CIHR Grants



## Congratulations to our researchers

**Abu-Laban, RB.** (Harrison, D.) Hyperbaric Oxygen Post Established Stroke Study. Private Donation. \$750,000. 2015-2017.

**Abu-Laban, RB.** UBC Killam Teaching Award 2015, the highest honour in teaching excellence.

**Brubacher, J.** (Asbridge, M., Brasher, P., Chan, W., Lovegrove, G., Pike, I., Schuurman, N.) Evaluation of Speed Limit Changes in British Columbia. CIHR. \$249,662. 2016-2018.

**Brubacher, J.** (Hutchison, JS. & Turgeon, AF.) Canadian Traumatic Brain Injury Research Consortium (CTRC). CIHR. \$1,824,513. 2015-2019.

**Brubacher, J.** (Mann, R., Wettlaufer, AA., Florica, RO., Asbridge, M., Beirness, D., Callaghan, R., Fisher, B., Imtiaz, S., McKiernan, A.) Estimating the cost of Cannabis Impaired Driving. State Farm Insurance. \$25,000. 2015-2016.

**Ho, K.** (Kislock, L., **Kim Sing, C.**, Chang, T., Cuthbertson, L., Da Silva, B., Schmidt, T., Waldron, J., **Abu-Laban, R.**, Christenson, J., **Grafstein, E.**, Marsden, J., Mitton, C., Nasiopoulos, Novak Lauscher, H., Wong, H.) TEC4Home: Telehealth for Emergency-Community Continuity of Care Connectivity via Home-Telemonitoring. Michael Smith Foundation for Health Research. CIHR. \$212,490. 2015-2019.

**Ho, K.** (Novak Lauscher, H. & Cordeiro, J.) MindHealthBC: eMental Health Regional Strategy Evaluation. VCH Authority. \$49,500. 2015-2016.

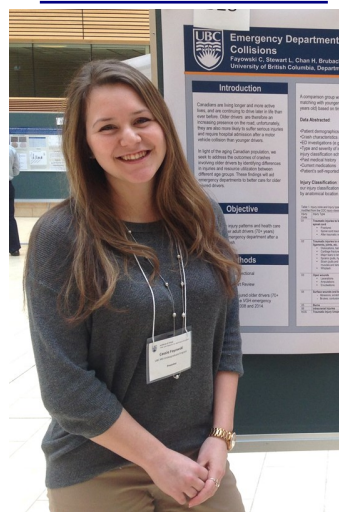
### Inside this issue:

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Angela Aquino  
Research Coordinator  
CAN-TBI

*CAN-TBI is a Canada-wide initiative whose main goal is to develop a national traumatic brain injury (TBI) biobank. This will help researchers establish future studies that could lead to better diagnoses and treatments of TBIs. Patient recruitment will begin in April 2016.*



Cassie Fayowski  
UBC SSRP 2014  
Injured Older Drivers

## Congratulations Continued...

**Ho, K.** (Novak Lauscher, H., Stacy, E., & Khan, S.) Inter-Cultural Online Health Network (iCON): Engaging Multicultural Communities in non-urban locations in BC. BC Ministry of Health. \$600,000. 2015-2016.

**Hohl, CM.** (Badke, K., Balka, E., Brasher, P., Bryan, S., Grafstein, E., Law, M., Nakagawa, RS., Samoil, D. & Taylor, A.) eHealth Innovation Partnership Program. Pill Talk - Adverse Drug Event Reporting to Improve Safety. Team Grant. CIHR. \$2,578,056.

**Hohl, CM.** (Dahri, K. & Graham, K.) Incidence of clinically relevant medication discrepancies after implementation of an electronic medication reconciliation process. Canadian Association of Emergency Physicians Grant. \$5,000. 2015.

**Sweet, D.** Global Sepsis Award 2015, honours in excellent sepsis awareness for outstanding methods for Quality Improvement, communication and education.

## Collaborative Research Policy

The VGH Department of Emergency Medicine has a tradition of producing high quality original research, and collaborating on the research initiatives of other VGH Departments or external groups. This academic mission must be balanced with the demands research places on Emergency Department patient care and teaching of Residents and Medical Students. In addition, simultaneous research projects may conflict with one another and may compete for the same patients as well as for the time and attention of our clerical, nursing, and medical staff.

For these reasons, all potential studies which require signoff by the VGH Department of Emergency Medicine undergo internal review, approval, and prioritization. It is expected that one or more members of the VGH Department of Emergency Medicine will be involved academically (as co-applicant on grants, and co-author on publications) on any significant peer-reviewed or investigator-initiated collaborative project conducted in the VGH Emergency Department. This involvement should commence during the development of the study protocol and the ED should receive appropriate acknowledgement for the role it plays for any such projects.

For further information on our research policy or to discuss a potential project please contact our Research Director (**Jeff Brubacher; Jbrubacher@shaw.ca**).

## Upcoming Research

**RAFF-2 Study:** This is a randomized, controlled comparison of electrical versus pharmacological cardioversion for Emergency Department patients with Recent-Onset Atrial Fibrillation and Flutter (RAFF). The study led by Dr. Corinne Hohl is looking to improve the early ED management of RAFF patients, ultimately leading to higher rhythm conversion rates and lower admission rates. The aim of the study is to create effective, safe, and efficient pathways for RAFF patient management in Canada.

## Upcoming Research Continued...

**Troponin Study:** Dr. Ka Wai Cheung and her team are developing an accelerated diagnostic protocol for patients with chest pain in the Emergency Department. This is a prospective observational study to assess how small changes in troponin measured 2 hours after ED presentation compares to standard troponin levels taken 6-8 hours after ED presentation in low risk chest pain patients.

**Syncope Study:** Drs. Paul Huang and Corinne Hohl launched a prospective validation study funded by Cardiac Arrhythmia Network (CANet) to improve the management of syncope in the Canadian health system, beginning with a safe reduction of ED and hospital utilization of syncope patients. The Canadian Syncope Score and Canadian Syncope Arrhythmia Score developed in a multi-site trial is now being validated at 8 sites, including VGH. This score risk stratifies the likelihood of cardiogenic syncope to form guidelines for safe discharge of low risk syncope patients without further unnecessary investigations. It will also form the basis of a related study beginning this summer collaborating with the Department of Cardiology to study extended vs. traditional 48-hour Holter out-patient monitoring. VGH will be involved in this and future studies that aim to have significant healthcare impact beyond successful studies results.

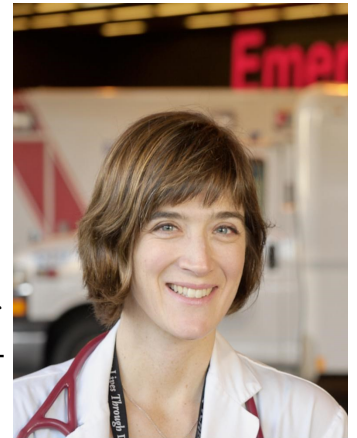
**Prehospital Tranexamic Acid use for Traumatic Brain Injury:** Dr. John Tallon and his research team is involved in a RCT to determine the efficacy of two dosing regimens of Tranexamic Acid (TXA) initiated prior to hospital arrival and continuing in hospital for 8 hours, on long-term neurologic outcome compared to placebo in patients with moderate to severe TBI who are not in shock. Of the 12 participating North American sites, BC and Toronto are the only Canadian sites. The designated hospitals are Vancouver General and Royal Columbian. The target enrollment is 963 cases with current enrollment at 295 cases from all sites. Vancouver General and Royal Columbian have each successfully enrolled 2 cases.

## Research Activities

**Adverse Drug Events:** In 2013, Dr. Hohl and her research team was funded by CIHR and partnership organizations to develop a better means of documenting Adverse Drug Events (ADEs) in electronic health records by defining a functional minimal dataset for ADEs, and working with stakeholders to integrate ADE reporting into PharmaNet, BC's medication information system, through local electronic systems.

In November 2014 Bill C-17, a law that requires Canadian healthcare institutions to report serious adverse drug reactions, a subset of ADEs, was passed by the federal government. Our work aligns with this legislation by providing a new framework for integrating ADE reporting into clinical care documentation.

In October 2015, Dr. Hohl's research team received a grant fund through the CIHR eHealth Innovation and Partnership Program (eHIPP), with partners PHEMI Systems Incorporated and the College of Pharmacists of BC, to build the reporting platform, and pilot its integration into an electronic medical record. The team is developing an evaluation protocol to determine the impact of enabling the ADE reporting interface on health outcomes.



Dr. Corinne Hohl  
Adverse Drug Events

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*Dr. Corinne Hohl has developed a new ADE reporting platform and pilot its integration into an electronic medical record which will improve patient safety*

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Vi Ho  
Research Coordinator

## Research Activities Continued...

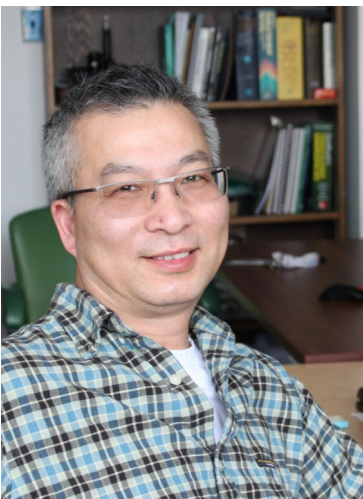


Dr. Jeff Brubacher  
VGH EM Research Director

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*Drs. Jeff Brubacher  
and Herbert Chan  
have recruited over  
2200 patients at VGH  
for their cannabis  
and motor vehicle  
crash study*

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Dr. Herbert Chan, PhD  
Road Safety Research

**Digital Emergency Medicine:** After serving two terms as Director of the eHealth Strategy Office since September 2008, Dr. Kendall Ho is now leading a new Digital Emergency Medicine (DigEM) group within the Department of Emergency in the Faculty of Medicine at UBC. DigEM continues to carry out digital health focused research and engagement projects within the contexts of primary and community care and emergency medicine.

**Road Safety:** The Cannabis and Motor Vehicle Crashes project, led by Jeff Brubacher, is in the final year of data collection. When finished this study will provide valuable information on the association of cannabis use and motor vehicle crashes. To date, we have enrolled 2850 injured drivers. Our first paper, on the prevalence of alcohol and drug use in injured drivers, was recently published in BMJ Open.

In late 2015, Drs. Brubacher, Chan, and Pursell conducted an online survey to gather feedback and opinions of BC physicians, particularly EM physicians, on reporting medically unfit drivers and on BC's fitness to drive laws. We received 231 completed responses, of which 46.7% were from EM physicians and 40% from Family physicians. Half of the respondents indicated that they lack the training in assessing driving fitness and have insufficient knowledge about the laws and procedures for reporting unfit drivers. An informational/educational package for physicians regarding fitness to drive and reporting will be produced after we analyse the survey results later this year.

Following our team's evaluation of BC's alcohol impaired driving laws, we just received a new CIHR grant to evaluate the effects of 2014 BC's speed limit changes on crashes and road trauma. That study will utilize data from police reported crashes, auto insurance claims and ambulance dispatch records. Our results will be used to guide speed limit policy in BC and Canada.

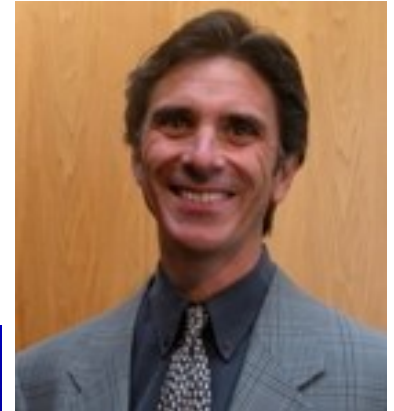
Dr Chan together with Cassie Fayowski and Lauren Stewart completed a study of crashes involving elderly drivers. That study, which compared the injury profile and use of healthcare resources in elderly drivers versus younger drivers was presented last October at the Australasian Road Safety Conference.

**Ultrasound Teaching & Research:** The acute onset of flashes and floaters in the eyes is a common presentation to the emergency department. The most emergent etiology is retinal detachment, which requires prompt ophthalmologic assessment. This study, led by Dr. Dan Kim and Dr. Donna Lee is designed to assess the test characteristics of point of care ultrasound performed by a large heterogeneous group of emergency physicians for the diagnosis of retinal detachment. Patients will undergo standard emergency department ocular assessment, after which a participating physician will perform an ocular ultrasound exam targeted at detecting retinal detachment. Data collection is ongoing.

**Research Education:** Riyadh Abu-Laban, UBC Department of Emergency Medicine Research Director, led a highly successful 5th annual "NERD Block" (Novel Education in Research & Design) for 15 Royal College EM Residents and Peds EM Fellows with Dr. Quynh Doan in the fall of 2015. This 1 month program involves 34 interactive small group sessions and workshops facilitated by faculty

## Research Activities Continued...

members from the Department of Emergency Medicine and Division of Pediatric Emergency Medicine on all aspects of research and critical appraisal. NERD participants gain foundational knowledge, interact with and learn about the research being done by a wide range of Emergency Medicine faculty members, and develop and advance their own research projects. Since its onset, the NERD Block has gained wide attention, both across UBC and nationally. NERD 2016 will run October September 26th to October 21st, 2016 and any VGH EPs interested in participating are encouraged to contact Dr. Abu-Laban for further information.



Dr. Riyadh Abu-Laban  
Research Education



NERD Family 2015

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*Dr. Abu-Laban received the Killam Teaching Award for the development and success of the Novel Education in Research & Design "NERD Block" Congratulations!*

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## Publications

1. **Abu-Laban RB**, Migneault D, Grant MR, Dhingra V, Fung A, Cook RC, Sweet D. Extracorporeal membrane oxygenation after protracted ventricular fibrillation cardiac arrest: case report and discussion. *Can J Emerg Med.*17 (2):210-6, 2015.
2. Amari, E., Barry, R., Chong, X., Novak Lauscher, H., **Ho, K.** Using social media to reach Chinese and South Asian communities in British Columbia: The story of a peer-led diabetes prevention program on Facebook. *International Journal of Social Media and Interactive Learning Environments.* 2015 3 (1):20-39.
3. Andrew J Wormsbecker, **David D Sweet**, Shawna L Mann, Sophie Y Wang, Morris R Pudek, Luke YC Chen. Conditions associated with extreme hyperferritinemia (> 3000 µg/L) in adults. *Internal Medicine Journal* 2015; 45(8).



Dr. Ka Wai Cheung  
Smoking Cessation and  
TIA Study

## Publications Continued...



Dr. Kendal Ho  
TEC4Home and eHealth  
Research

*Dr. Kendal Ho and his team are working to "Connect People to Better Health" using health information technologies*



Vahid Mehrnoush  
Cannabis and MVCs

4. Beatty L, **Tallon JM** et al. Radiation Exposure from CT Scanning in the Resuscitative Phase of Trauma Care: A Level One Trauma Centre Experience. *CJEM* 2015;17(6):617-23.
5. **Bednarczyk J**, Singal R. Functional outcomes after resuscitative extracorporeal membrane oxygenation for cardiac arrest: The patients speak for themselves. *The Journal of Thoracic and Cardiovascular Surgery*. 2015, Oct; 150(4):955-956.
6. **Brubacher J**, Desapriya E, Chan H, Ranatunga Y, Harjee R, Erdelyi S, Asbridge M, Pursell R, Pike I. Media Reporting of Traffic Legislation Changes in British Columbia (2010). *Accident Analysis and Prevention*. 2015;82:227-233.
7. **Brubacher J**, Desapriya E, Erdelyi S, Chan H. The impact of child safety restraint legislation on child injuries in police-reported crashes in British Columbia: An interrupted time series analysis. *Paediatrics & Child Health (In Press)*
8. **Brubacher JR**, Chan H, Erdelyi S. Increase in ambulance calls for road trauma in BC. *BC Medical Journal Online Blog*. Mar 2015.
9. **Brubacher JR**, Chan H, Martz W, et al. The Prevalence of Alcohol and Drug Use in Injured British Columbia Drivers. *BMJ Open*. March 10, 2016;6.
10. **Brubacher JR**. What do we know about drug driving? *BC Medical Journal*. April 2015 *BCMJ*, Vol. 57, No. 3, April 2015, page(s) 114-115.
11. Bruder EA, Ball IM, Ridi S, Pickett W, **Hohl CM**. Single induction dose of etomidate versus other induction agents for endotracheal intubation in critically ill patients. *Cochrane Database of Systematic Reviews*. 2015(1) Art. No.: CD010225.
12. Burgess S, **Abu-Laban RB**, Slavic R, **Vu E**, Zed PJ. A systematic review of randomized trials comparing hypertonic saline and mannitol for traumatic brain injuries: Implications for emergency department management. Accepted For Publication and In Press, *Annals of Pharmacotherapy*, 2016.
13. Calder L, **Abu-Laban RB**, Artz JD, McLeod S, Blackie B, Das B, Woods R, Pery JJ, Vaillancourt C, Stiell IG, Frank JR. "How to Make Research Succeed in Your Department" Panel 1: Promoting Excellence in Canadian Emergency Medicine Resident Research. (panel publication with consensus statements). *Can J Emerg Med*, 17(5), 591-99, 2015.
14. Cheng AHY, Barclay NG, **Abu-Laban RB**. Effect of a multi-diagnosis observation unit on emergency department length of stay and inpatient admission rate at two Canadian hospitals. *Journal Emerg Med*, 2016 (In Press)
15. Cheng Y.L., Ke J.X., Lee D.S., Wu Q., **Ho K.** (2015) Communication tool to describe use of traditional herbal Chinese medicine to Western medicine physicians. *British Columbia Medical Journal*. 2015 57(8):356-357.
16. Cripton PA, Shen H, **Brubacher JR**, Chipman M, Friedman SM, Harris MA, Winters M, Reynolds CCO, Cusimano MD, Babul S, Teschke K. Severity of urban cycling injuries and their relationship with personal, trip, route and crash characteristics: Case-control analyses using four severity metrics. *BMJ Open* 2015 (Jan);5:e006654.

## Publications Continued...

17. Davis W.M., **Ho K.**, Last J. (2015) Advancing social media in medical education. Canadian Medical Association Journal. 2015 187(8):549-550.
18. Extracorporeal membrane oxygenation for blastomycosis related acute respiratory distress syndrome: a case series. **Bednarczyk J**, Kethireddy S, White C, Freed D, Singal R, Bell D, Kumar A, Light B. Canadian Journal of Anesthesia 2015 Apr.
19. Genuis ED, **Kim DJ**. A case of secondary aortoesophageal fistula. J Emerg Med 2015; 49(6):e193-4.
20. Hardiman S, **Ho K.** The effect of educational attainment levels on use of non-traditional health information resources: findings from the Canadian survey of experiences with primary health care. Knowledge Management & E-Learning, 2015 7(4):677-687.
21. **Ho K.**, Newton L., Boothe A., Novak-Lauscher H. mobile Digital Access to a Web-enhanced Network (mDAWN): Assessing the Feasibility of Mobile Health Tools for Self-Management of Type-2 Diabetes. AMIA Annual Symposium Proceedings. 2015;621-629.
22. **Hohl CM**, Lexchin J, Balka E. Can reporting of adverse drug reactions create safer systems while improving health data? Canadian Medical Association Journal 2015:187(9): 1-2.
23. **Hohl CM**, McGrail K, Sobolev B. The effect of pharmacist-led medication review in high-risk patients in the emergency department: an evaluation protocol. CMAJ Open 2015;3(1): E103-E110.
24. **Hohl CM**, Wickham ME, Sobolev BG, Perry JJ, Sivilotti MLA, Garrison S, Lang E, Brasher P, Doyle-Waters M, Brar B, Rowe BH, Lexchin J, Holland R. The Effect of Early in-hospital Medication Review on Health Outcomes: A Systematic Review. British Journal of Clinical Pharmacology 2015;79(9): 1-9.
25. Lange RT, Panenka WJ, Shewchuk JR, Heran MKS, **Brubacher JR**, Bioux S, Sekbo R, Shenton ME, Iverson GL. Diffusion Tensor Imaging Findings and Symptom Reporting Six-Weeks Following Mild Traumatic Brain Injury. Archives of Clinical Neuropsychology. 2015(Feb);30:7-25.
26. Lee WW, Filiatrault L, **Abu-Laban RB**, Rashidi A, Lau L, Liu N. Effect of triage nurse initiated radiography using the Ottawa Ankle Rules on emergency department length of stay at a tertiary care centre. Can J Emerg Med. 2015 Jul 20:1-8. [Epub ahead of print]
27. Liu, D., Peterson, E., Dooner, J., Baerlocher, M., Zypchen, L., Gagnon, J., DeLorme, M., **Kim Sing, C.**, Wong, J., Guzman, R., Greenfield, G., Moodley, O., Yenson, P; for the interdisciplinary Expert Panel on Iliofemoral Deep Vein Thrombosis (InterEPID) Diagnosis and management of iliofemoral deep vein thrombosis:clinical practice guideline. CMAJ, November 17, 2015;187 (17):1288-1296.



Dr. Chad Kim Sing  
Department Head  
Emergency Medicine

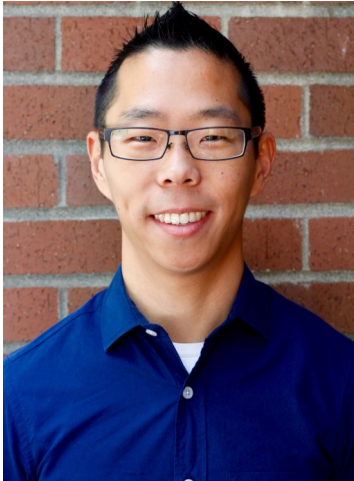
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*Dr. David Sweet  
received the Global  
Sepsis Award for  
outstanding methods  
for Quality  
Improvements  
Congratulations!*

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Dr. David Sweet  
Sepsis Research



Dr. Dan Kim  
Retinal Detachment Study

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*VGH is prospectively  
validating the Canadian  
Syncope Arrhythmia  
Risk Score*

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Dr. Paul Huang  
Syncope Study

## Publications Continued...

28. McCallum J, **Sweet D**, Kanji H. Assessment of Paramedic Ultrasound Curricula: A Systematic Review. *Air Medical Journal*. 2015 Nov; 34(6):360-8.
29. McKeown s, Krause C, Shergill M, Siu A, **Sweet D**. Gamification as a strategy to engage and motivate clinicians to improve care. *Healthcare Management Forum* 2016 Mar;29(2):67-73.
30. Miller B., **Ho K.**, Carvalho A. Social media to support physician practice and CPD: Opportunities, issues, and an emergency medicine case study. *British Columbia Medical Journal* 2016 58(2):94-96.
31. Panenka WJ, Lange RT, Bouis S, Shewchuk JR, Heran MKS, **Brubacher JR**, Eckbo R, Shenton ME, Iverson GL. Neuropsychological Outcome and Diffusion Tensor Imaging in Complicated Versus Uncomplicated Mild Traumatic Brain Injury. *PLOS ONE* 2015;10:e0122746
32. Perry JJ, Alyahya B, Sivilotti MLA, Bullard MJ, Émond M, Sutherland J, Worster A, **Hohl CM**, Lee JS, Eisenhauer MA, Pauls M, Lesiuk H, Wells GA, Stiell IG. Differentiation between traumatic tap and aneurysmal subarachnoid hemorrhage: prospective cohort study. *BMJ* 2015;350:h568.
33. Perry JJ, Snider C, Artz J, Stiell IG, Shaeri S, McLeod S, LeSage N, **Hohl CM**, Calder LA, Vaillancourt C, Holroyd B, Hollander J, Morrison L. CAEP 2014 Academic Symposium: “How to Make Research Succeed in your Department” Panel 2: How to Develop and Train Career Researchers. *Can J Emerg Med* 2015: 17(3);334-43.
34. Pickett RA, Stenstrom R, **Abu-Laban RB**. Relationship between mental health apprehension by police and monthly income assistance (welfare) payments. *Can J Psychiatry*. 2015 Mar;60(3):146-50.
35. Rowe BH, Villa-Roel C, Majumdar SR, **Abu-Laban RB**, Aaron SD, Stiell IG, Johnson J, Senthilselvan A; AIR Investigators. Rates and correlates of relapse following emergency department discharge for acute asthma: A Canadian 20-site prospective cohort study. *Chest*. 2015 Jan;147(1):140-9.
36. Scheuermeyer F., Grunau B., Cheyne J, Grafstein E., Christenson J., **Ho K.** Speed and accuracy of mobile Blackberry Messenger to transmit chest radiography images from a small community emergency department to a geographically remote referral center. *Journal of Telemedicine and Telecare*. 2015 Jul 21. [Epub ahead of print]
37. Scheuermeyer F.X., Grunau B.E., Findlay T., Grafstein E., Christenson J., Lang E., Rowe B., **Ho K.** Speed and accuracy of test-messaging emergency department electrocardiograms from a small community hospital to a provincial referral center. *Journal of Telemedicine and Telecare*. 2015 22(2):105-13.
38. Severe accidental hypothermia treated with extra-corporeal membrane oxygenation in an urban Canadian setting. Peters HJ, **Bednarczyk J**, White C, Weldon E, Singal R. Presented by first author at Canadian Association of Emergency Physicians 2015, Edmonton, AB, Canada



## Publications Continued...

39. Silverberg ND, Gardner A, **Brubacher JR**, Li JJ, Iverson GL. Systematic review of multivariable prognostic models for mild traumatic brain injury. *Journal of Neurotrauma*. 2015;32:517-526.
40. Silverberg ND, Iverson GL, **Brubacher JR**, Holland E, Hoshina LC, Aquino A, Lange RT. The nature and clinical significance of pre-injury recall bias following mild traumatic brain injury. *J Head Trauma Rehabilitation* 2015 Nov 17 [epub ahead of print]
41. **Tallon JM**, Carmella Steinke, Donna MacFarlane, Benjamin Higgins. Review of fixed wing medevac patients and processes in northern Alberta, January 12, 2015, Health Quality Council of Alberta, Calgary, Alberta.
42. The Use of Online Educational Resources by Canadian Emergency Medicine Residents and Program Directors. Purdy E, Thoma B, **Bednarczyk J**, Migneault D, Sherbino J. *Canadian Journal of Emergency Medicine*. 2015 Mar; 17(2):101-6.
43. Zibrik L, Khan S, Bangar N, Stacy E, Novak Lauscher H, **Ho K**. Patient and Community Centered eHealth: Exploring eHealth barriers and facilitators for chronic disease self-management within British Columbia's immigrant Chinese and Punjabi seniors. *Health Policy and Technology* 2015 4:348-356.
44. Zibrik L, Khan S, Novak Lauscher H, Cheema G, Ho B, Bains J, Harper C, **Ho K**. (2015). iCON: Supporting Chinese and South Asian BC citizens for optimal self-management. *British Columbia Medical Journal*. 2015 57 (6):244-245.



Dr. John Tallon  
Prehospital Care

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*Dr. Tallon's TXA Study, prehospital treatment for traumatic brain injury*

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## Selected Presentations

1. **Bednarczyk J**. Incorporating fluid responsiveness into goal-directed therapy – does it affect outcome? A systematic review and meta-analysis. *Social Media and Critical Care Conference (SMACC)* June 2015, Chicago, IL USA.
2. **Brubacher JR**. Drug Driving Enforcement. Presented to the Department of Traffic Science at the National Research Institute for Police Science. November 20, 2015, Tokyo, Japan.
3. **Brubacher JR**. Drug Impaired Driving. Presented to the Tokai Medical Society, Dec 2, 2015. Tokyo, Japan.
4. **Brubacher JR**. Drug Impaired Driving. Shiga University of Medical Science, November 25, 2015, Shiga, Japan
5. **Chan H**, Fayowski C, Stewart L & **Brubacher J**. Elderly Drivers and Emergency Department Visits. *Australasian Road Safety Conference* October 2015. Gold Coast, Queensland, Australia.



Maeve Wickham, MSc  
Adverse Drug Events



Dr. Roy Pursell  
Road Safety  
Toxicology

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*Dr. Erik Vu and  
colleagues specialize  
in pre-hospital care  
and aeromedical  
evacuation.*

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Dr. Erik Vu  
Pre-hospital Care

## Presentations Continued...

6. Fayowski C, Stewart L, **Chan H & Brubacher J**. Emergency Department Visits of Older Drivers for Motor Vehicle Collisions. University of British Columbia Medical Student Research Forum 2015 (March) – Poster presentation (Winner of the Best Poster in the Population Health Category)
7. **Ho K**. Diabetes Self-Management via Mobile Health: Learnings from a Canadian Environmental Scan. eHealth and Innovative Technology Showcase May 2015. Vancouver.
8. **Ho K**. Mobile Digital Access to a Web-enhanced Network (mDAWN). UBC Department of Emergency Medicine Research Day April 2015. Vancouver.
9. **Ho K**. mobile Digital Access to a Web-enhanced Network (mDAWN): Assessing the Feasibility of Mobile Health Tools for Self-Management of Type-2 Diabetes. Annual Symposium of the American Medical Informatics Association November 2015. San Francisco, CA.
10. **Ho K**. Educational tools to support interprofessional collaboration: International perspectives on educating patient centered care using EHRs. Medinfo August 2015. Sao Paulo, Brazil.
11. **Ho K**. LungFIT: Validating a Smartphone Application for Pulmonary Rehabilitation. American Thoracic Society Conference May 2015. Denver, CO.
12. **Ho K**. Selecting appropriate telehealth technology for remote and isolated First Nations nursing stations: a Human Factors approach. e-Health: Making Connections conference June 2015. Toronto.
13. **Kim DJ**. *Not Always Black & White: Evaluating the Evidence for Point of Care Ultrasound*. Grand Rounds, Department of Emergency Medicine, University of British Columbia September 9, 2015. Vancouver.
14. **Tallon JM**. Cannabis Use and Car Crashes: Evidence and Causation, Cannabis Legalization Conference September 17, 2015. London.
15. **Tallon JM**. Principles and Challenges When Using Available Data Sources for Health Research, as part of “NERD”: Novel Education in Research & Design course, November 9, 2015. Vancouver.
16. Tallon JM., Carmella Steinke, Donna MacFarlane, Benjamin Higgins. Review of fixed wing medevac patients and processes in northern Alberta, Accepted CAEP, June 2015. Edmonton.

# Research Word Search

ED Word Search! The object of the game is to find all 13 hidden research topics that are currently being studied out of the Emergency Department. Do you accept the challenge?

K X B A E C H J U R V J A C J P M R C K C B W G L F E C L R B R J L V  
 C G E G A H R R O M E H D I O N H C A R A B U S X E R V F G J M N U D  
 A V B F G E H S J V E Y B I B B M G V E K L V A X C V E V U M X O G F  
 T E V H E S G J P M B S C D U G V X W X Y H R R D H F V M R M U I B G  
 T V S U C T N E B G F J J F B W W G U K T V N N I L F E F V F W T E H  
 A R Q F X P A C M T F C N R E T I N A L D E T A C H M E N T V T A V Y  
 C Q A R Y A W Q C E W E T F I U K I J U J I E K A V G Q X C S G L H T  
 I S E U V I D E V T W Z R F Y T M H N G M Y F M C V V H D F F V L J R  
 M F D C M N T B S V V B N M R E V C G B W R C G I M F B G U H H I K W  
 E H E R O A D S A F E T Y T E R F A T E G E G S M V A M E V N E R D S  
 H K R S D F T M H J N J L T A F V E J V B A P F A Q D R X V L V B E J  
 C P A B F Y K I B N U N K J C S D T W W R C I E X R F V N R L V I E C  
 S L C J H W M V C T U P H T G F N D G S B G Y G E P G O K R M W F I E  
 I K L M J F F S J B R R G B N Y V N K G Q N E J N M J L T G Q Q L D Z  
 T T A B P J E X H P R U F K U V W U G J F U G K A N K G G V S U A F Y  
 N B T E B V V D S I K A R B B M G O V O Q Q J E R E N B Q F E I I P X  
 E R I Q M W H W E T M O I E R E B S D P Y D N F T Q B R V R H F R C K  
 I R P J C I W E T H T K K N G Q W A D V E R S E D R U G E V E N T S M  
 S I S P E S T R Y D B M N E I F F R Q R T Y U O P L K H F B D N A E B  
 N F O P M K Y T M E D N G E L N C T A D G J L M B V C D U G V X W X Y  
 A C H L V N W G C F E B T Q H I J L A D G B N J M K L U R B J R E K V  
 R V E V E G F B K N E E R I K M P U W G T H J E C V U N M V M I M K Q  
 T T R E Y R O M H Y S V W R B G L R R B T B S V V B N M R E V M M D A  
 S E P V U W N P N Q H N D L D R M E V Y E P O C N Y S O L L B N Y S R  
 C L F E V U M O V R T I B G K F V K T L E C E X S Q I O P J V X D J R

- RESEARCH TOPICS:**
- Road Safety
  - Transient Ischemic Attack
  - Subarachnoid Hemorrhage
  - Traumatic Brain Injury
  - Ultrasound Teaching
  - Adverse Drug Events
  - Prehospital Care
  - Syncope
  - Retinal Detachment
  - Chest Pain
  - Atrial Fibrillation
  - Tranexamic Acid
  - Sepsis

*EM Research Team  
 Summer 2015 Hike*



## Research Personnel

### Director

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### Coordinator

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### Investigators

Riyad Abu-Laban (Research Education)  
 Jeff Brubacher (Road Safety)  
 KaWai Cheung (TIA Study)  
 Kendal Ho (eHealth)  
 Corinne Hohl (Adverse Drug Reactions)  
 Roy Pursell (Road Safety)  
 David Sweet (Sepsis)

### Research Associate

Herbert Chan, PhD (Road Safety)

### Advisory Committee

Riyad Abu-Laban, MD, MHSc  
 Jeff Brubacher, MD, MSc  
 Brian Chung, MD  
 Corinne Hohl, MD, MHSc  
 Chad Kim Sing, MD  
 Roy Pursell, MD

### Research Coordinators

Angela Aquino (Traumatic Brain Injury)  
 Maeve Wickham, MSc (Adverse Drug Events)

### Research Assistant

Vahid Mehrnough (Cannabis & MVCs)

## Student & ED Staff Involvement

Our research would not be possible without the involvement and ongoing support from Emergency Department Nurses, Unit Clerks, Admitting Staff and Physicians. We are fortunate to have an amazing team that continues to engage in research while providing top notch patient care.

Students play a valuable role in our research division, and we are grateful for the dedicated and motivated individuals who have donated their time. In turn, students gain exposure to emergency medicine and clinical research.

## Study Volunteers

### Road Safety Research

Cassie Fayowski  
 Elizabeth Pursell  
 Amanda Lee  
 Sean Wong  
 Ron Lau  
 Colby Renschler  
 Natasha Simula  
 Roarke Copeland  
 Steven Pi

### Sepsis Study

Amir Mahpour  
 Sassan Sangsari  
 Ben Huang  
 Ana Gomez  
 Christian Vadeanu  
 Jenn Hinze  
 Wilson Lee  
 Natasha Simula  
 Josh Frohlich

### Acute Headache

Ben Millar  
 Kevin O'Riordan  
 Nora Tong  
 Michelle Wan  
 Therese Balleza

### Smoking Cessation

Amy Tsai  
 Ian Wong  
 Jimmy Tsai  
 Nicole Kloos  
 Sally Ke  
 Warren Fingrut

### Retinal Detachment

Ross Prager



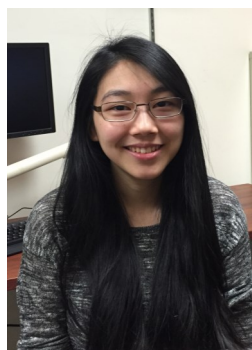
Ross Prager



Ana Gomez



Ben Huang



Amanda Lee



Steven Pi



Josh Frohlich