

Research₀



Newsletter

C.R.e.S.T

CCW Research e-Newsletter C.R.e.S.T

2020 Edition

Dear CCW Colleagues

We are pleased to share the second edition of the CCW research e-Newsletter to showcase the tremendous research progress & achievements of CCW faculty in 2020.

We hope you enjoy this edition of the CReST!

Note: Depending on your email settings, this email may be 'clipped'. Please click on the "..."[at the end of this email to view the entire e-Newsletter.](#)

CCW Research Activities in 2020

5 awards

8+ media research coverage

10+ grants

20+ guest lectures & talks

75+ publications

2 books and book chapters

Honours & Awards

- Canadian Association of Emergency Medicine Physicians Annual Conference Resident Abstract Award. **Recipient: Dr Ian Ball.**

- LHSC Medical Advisory Committee (MAC) Award. **Recipient: Dr Wael Haddara.**
- Academic Merit Award, Department of Surgery. **Recipient: Dr Robert Leeper.**
- 2020 CTA-UWO Faculty Professional Development Fund, Strategies and Skills Development for Career Advancement and Healthcare Leadership. **Recipient: Dr Tina Mele.**
- Faculty Development Mini Fellowship Application, Career Advancement and Leadership Skills for Women in Healthcare. **Recipient: Dr Tina Mele.**

Research Funding

over \$3 million

as principal applicants



Principal applicant: Dr Marat Slessarev
Co-principal applicant: Dr Claudio Martin
Other CCW applicant: Dr Ahmed Hegazy

Featured Grant

SAVE-ICU

Sedating with volatile anesthetic agents in critically ill COVID-19 patients in ICU: Effects on ventilatory parameters and survival.

Funded by *Canadian Institutes of Health Research (CIHR)*.

Funds awarded: \$2,020,648

[Learn more about the grant here.](#)

All Research Funding

CCW principal or co-principal applicant

- ***AMOSO Innovation Grant.*** Development and validation of a video decision aid to guide resuscitation preferences at LHSC. Funds awarded: \$150,000. **Co-Principal Applicant: Ravi Taneja.**
- ***Canadian Anesthesiologists' Society Grant.*** COVID-19 infections, complications and deaths in perioperative physicians and surgical patients. Funds awarded: \$20,000 over 2 years. **Principal Applicant: Davy Cheng.**
- ***Canadian Institutes of Health Research (CIHR)*** . Exploration of brain function at the end

of life: a multi-disciplinary patient-oriented approach. Funds awarded: \$200,000 over 3 years. **Principal Applicant: Marat Slessarev.**

- **Lawson Internal Research Fund.** Personal & professional implications of the COVID-19 pandemic for frontline hospital workers. Funds awarded: \$12,000 over 1 year. **Principal Applicant: Kimia Honarmand. Other CCW Applicants: John Basmaji, Ian Ball.**
- **Lawson Internal Research Fund.** COVIDOPATHY - An observational study of coagulation abnormalities in patients with COVID-19. Funds awarded: \$10,895 over 1 year. **Principal Applicant: Claudio Martin. Other CCW Applicants: Kimia Honarmand, John Basmaji, Ravi Taneja, Tina Mele, Ahmed Hegazy, Karen Bosma, Marat Slessarev.**
- **Lawson Internal Research Fund.** Neuropsychological sequelae of COVID-19 critical illness: a prospective observational study. Funds awarded: \$13,000 over 1 year. **Principal Applicant: Kimia Honarmand. Other CCW Applicants: Marat Slessarev, Karen Bosma, John Basmaji.**
- **Lawson Internal Research Fund.** Predictors of clinical deterioration in hospitalized patients with COVID-19: the CORAL study. Funds awarded: \$15,000 over 1 year. **Principal Applicants: Ian Ball, Kimia Honarmand, John Basmaji. Other CCW Applicants: Karen Bosma, Marat Slessarev, Tina Mele, Claudio Martin.**
- **Medtronic Inc. (Physio-Control International Corporation).** Proportional assist ventilation for minimizing the duration of mechanical ventilation. Funds awarded: \$62,000. **Principal Applicant: Karen Bosma. Other CCW Applicant: Claudio Martin.**
- **Ontario COVID-19 Rapid Research Grant.** MCU Research proposal for the use of inhaled anesthetic-based sedation in ventilated COVID-19 patients: novel approach to shorten duration of ventilation, reserve intravenous sedation stocks, and improve survival. Funds awarded: \$1,210,523 over 2 years. **Principal Applicant: Marat Slessarev. Other CCW Applicant: Davy Cheng.**

Featured Publication

A systematic review of risk factors for sleep deprivation in critically ill adults.
Critical Care Medicine.

Altmetric score: 48

[Read the article here.](#)



Dr Kimia Honarmand
Dr Karen Bosma

Journal Publications

CCW first/senior author

[by publication date]

- **Honarmand K**, Parsons Leigh J, **Basmaji J**, **Martin CM**, Sibbald R, **Nagpal AD**, Lau V, Priestap F, De S, Healey A, Dhanani S, Weiss MJ, Shemie S, **Ball IM**. Attitudes of

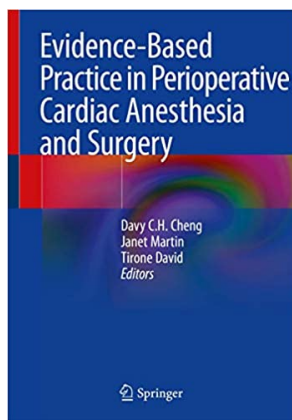
healthcare providers towards cardiac donation after circulatory determination of death: a Canadian nation-wide survey. *Can J Anaesth*. [Read the article here.](#)

- **Honarmand K**, Parsons Leigh J, **Martin CM**, Sibbald R, **Nagpal D**, Lau V, Priestap F, De S, **Basmaji J**, Healey A, Dhanani S, Weiss MJ, Shemie S, **Ball IM**. Acceptability of cardiac donation after circulatory determination of death: a survey of the Canadian public. *Can J Anaesth*. [Read the article here.](#)
- Koichopolos J, Hilsden R, Myslik F, Thompson D, Vandelinde J, **Leeper R**. Surgeon attitudes toward point of care ultrasound for biliary disease: a nationwide Canadian survey. *Can J Surg*. [Read the article here.](#)
- Takaoka A, **Honarmand K** (co-first author), Vanstone M, Tam B, Smith O, Baker A, LeBlanc A, Swinton M, Veville T, Clarke F, Hancock J, McMullen S, Meade MO, Rose T, Arora S, Cook DJ. Organ donation at the end of life: experiences from the 3 Wishes Project. *J of Intensive Care Med*. [Read the article here.](#)
- Olszynski P, Kim D, Liu R, **Arntfield R**. A Multidisciplinary response to the Canadian Association of Radiologists' point-of-care ultrasound position statement. *Can Assoc Radiol J*. [Read the article here.](#)
- Nepomuceno RG, Goldraich LA, De S, **Hegazy AF**, Bainbridge D, Algadheeb M, **Nagpal AD**. Critical care management of the acute postimplant LVAD patient. *Can J Cardiol*. [Read the article here.](#)
- **Ball IM**, Healey A, Keenan S, Priestap F, **Honarmand K**, Parsons-Leigh J, Shemie S, Chaudhury P, Singh J, Zaltzman, Beed S, **Basmaji J**, Weiss M. Organ donation after Medical Assistance in Dying — Canada's first cases. *New England Journal of Medicine*. [Read the article here.](#)
- **Ball IM**, **Martin C**, Sibbald R. Potassium chloride for medical assistance in dying followed by organ donation. *Can J Anaesth*. [Read the article here.](#)
- **Honarmand K**, Lalli RS, Priestap F, Chen JL, McIntyre CW, Owen AM, **Slessarev M**. Natural history of cognitive impairment in critical illness survivors: a systematic review. *Am J Respir Crit Care Med*. [Read the article here.](#)
- Kuper TM, Federman N, Sharieff S, Tejpar S, LeBlanc D, Murphy PB, **Parry N**, **Leeper R**. Chest tube insertion among surgical and nonsurgical trainees: How skilled are our residents? *J Surg Res*. [Read the article here.](#)
- **Ball IM**, Sibbald R, Oczkowski S. Family override for organ donation. *Can J Anaesth*. [Read the article here.](#)
- **Haddara W**, Torti J, Inayat A, Sultan N, Zaric G, Enns E. In reply to Stoller. *Academic Medicine: Acad Med*. [Read the article here.](#)
- **Martin CM**, Lam M, Allen B, Richard L, Lau V, **Ball IM**, Wunsch H, Fowler RA, Scales DC. Determinants of direct discharge home from critical care units: a population-based cohort analysis. *Crit Care Med*. [Read the article here.](#)
- **Ball IM**, Hornby L, Rochweg B, Weiss MJ, Gillrie C, Chasse M, D'Aragon F, Meade MO, Soliman K, Ali A, Arora S, **Basmaji J**, Boyd G, Cantin B, Chaudhury P, Cypel M, Freed D, Frenette A-J, Hruska P, Karvellas CJ, Keenan S, Kramer A, Kutsogiannis DJ, Lien D, Luke P, Mahoney M, Singh JM, Wilson LC, Wright A, Zaltzman J, Shemie SD. Management of the neurologically deceased donor: a Canadian clinical practice guideline. *CMAJ*. [Read the article here.](#)

- Hawilo H, **Taneja R**. Interfacility helicopter transfers for critically ill patients: Always the right choice? *Crit Care*. [Read the article here.](#)
- **Slessarev M**, Cheng J, Ondrejicka M, **Arntfield R**, **Critical Care Western Research Group**. Patient self-proning with high-flow nasal cannula improves oxygenation in COVID-19 pneumonia. *Can J Anaesth*. [Read the article here.](#)
- Priestap F, **Kao R**, **Martin CM**. External validation of a prognostic model for intensive care unit mortality: a retrospective study using the Ontario Critical Care Information System. *Can J Anaesth*. [Read the article here.](#)
- Teran F, Burns KM, Narasimhan M, Goffi A, Mohabir P, Horowitz JM, Yuriditsky E, Nagdev A, Panebianco N, Chin EJ, Gottlieb M, Koenig S, **Arntfield R**. Critical care transesophageal echocardiography in patients during the COVID-19 pandemic. *J Am Soc Echocardiogr*. [Read the article here.](#)
- **Basmaji J**, Reed C, Rochweg B, **Ball IM**. The impact of neurologically deceased donors' blood pressures on clinical outcomes in transplant recipients: a systematic review. *Can J Anaesth*. [Read the article here.](#)
- **Basmaji J**, Ball I, Jones P, Rochweg B, **Arntfield R**; CRIXUS Investigators. Critical care ultrasonography in shock management: the elephant in Canadian intensive care units. *Can J Anaesth*. [Read the article here.](#)
- **Honarmand K**, **Ball I**, Weiss M, **Slessarev M**, Sibbald R, Sarti A, Meade M, D'Aragon F, Chasse M, **Basmaji J**, Parsons Leigh J. Cardiac donation after circulatory determination of death: protocol for a mixed-methods study of healthcare provider and public perceptions in Canada. *BMJ Open*. [Read the article here.](#)
- **Nagpal AD**, Cowan A, Li L, Nusca G, Guo L, Novick RJ, Harle CC, House AA, Fox S, Jones PM. Starch or saline after cardiac surgery: a double-blinded randomized controlled trial. *Can J Kidney Health Dis*. [Read the article here.](#)
- **Basmaji J**, Hornby L, Rochweg B, Luke P, **Ball IM**. Impact of donor sodium levels on clinical outcomes in liver transplant recipients: a systematic review. *Eur J Gastroenterol Hepatol*. [Read the article here.](#)
- Lan T, Tao A, Xu X, Kvietyas P, **Rui T**. Peroxynitrite/PKR Axis modulates the NLRP3 inflammasome of cardiac fibroblasts. *Front Immunol*. [Read the article here.](#)
- Stewart TC, Edwards J, Penney A, Gilliland J, Clark A, Haidar T, Batey B, Pfeffer A, Fraser DD, Merritt NH, **Parry NG**. Evaluation of a population health strategy to reduce distracted driving: examining all "Es" of injury prevention. *J Trauma Acute Care Surg*. [Read the article here.](#)
- Ryan JF, Istl AC, Luhoway JA, Davidson J, Christakis N, Bütter A, **Mele TS**. Gender disparities in medical student surgical skills education. *J Surg Educ*. [Read the article here.](#)
- **Slessarev M**, Fraser DD. Anticytokine Therapies in severe coronavirus disease 2019 should be informed by detailed inflammatory profiling and specific therapeutic targets. *Crit Care Explor*. [Read the article here.](#)
- Chen J, **Martin C**, **Ball IM**, McIntyre CW, **Slessarev M**. Impact of graded passive cycling on hemodynamics, cerebral blood flow, and cardiac function in septic ICU patients. *Front Med (Lausanne)*. [Read the article here.](#)

- **Landau J.** Ultrasound-guided resuscitation in open aortic surgery - The AORTUS Trial. *Electronic Thesis and Dissertation Repository*. [Read the thesis here.](#)
- **Basmaji J**, Hornby L, Rochweg B, Luke P, **Ball IM**. A systematic review of donor serum sodium level and its impact on transplant recipients. *Int J Organ Transplant Med*. [Read the article here.](#)
- **Mele TS**, Kaafarani HMA, Guidry CA, Loor MM, Machado-Aranda D, Mendoza AE, Morris-Stiff G, Rattan R, Schubl SD, Barie PS. Surgical Infection Society Research Priorities: a narrative review of fourteen years of progress. *Surg Infect (Larchmt)*. [Read the article here.](#)
- Al Duhailib Z, **Hegazy AF**, Lalli R, Fiorini K, Priestap F, Iansavichene A, **Slessarev M**. The Use of central venous to arterial carbon dioxide tension gap for outcome prediction in critically ill patients: a systematic review and meta-analysis. *Crit Care Med*. [Read the article here.](#)

Books and Book Chapters



Featured Book

Evidence-based Practice in Perioperative Cardiac Anesthesia and Surgery. Springer-Verlag. 2020.

Davy C.H. Cheng, Janet Martin, Tirone David (eds).

This comprehensive yet concise book addresses current best practice in the combined areas of cardiac surgery and anesthesia, interventional minimally invasive cardiac procedures, perioperative management and monitoring, and critical care recovery.

[Order the book here.](#)

- Martin J, **Cheng DCH**. Fast-track cardiac anesthesia and early extubation, in Taggart D and Puskas J (eds.) *Coronary Artery Bypass Grafting*, Oxford University Press, 2020.
- **Granton J**, **Cheng DCH**. Chapter 13: Heart transplantation and subsequent noncardiac surgery. 9th Edition of Yao & Artusio's *Anesthesiology: Problem oriented patient management*, Edited by Fun Sun F. Yao and Nikolas Skubas. 2020. [Order the book here.](#)

Guest Lectures and Talks

[by presentation date]

- **Kimia Honarmand**. Consent in deceased organ donation research: proposal for a program of research. *Canadian Critical Care Trials Group*, January 2020, Lake Louise, Canada.
- **Kimia Honarmand**. Organ donation at the end of life: Experiences from the 3 wishes project; Dexmedetomidine compared to other sedatives or placebo in critically ill mechanically ventilated adults: a systematic review and meta-analysis of randomized controlled trials. *Society of Critical Care Medicine (SCCM)*, February 2020, Orlando, USA.

- **Robert Arntfield.** Transesophageal echocardiography for emergency physicians. *Saint Paul's Hospital*, February 2020, Vancouver, Canada.
- **Robert Arntfield.** Bringing a gun to a gun fight: TEE in everyday care of the critically ill; Transesophageal echocardiography for the intensivist (workshop). *Canadian Critical Care Conference*, February 2020, Whistler, Canada.
- **Robert Arntfield.** New Zealand resuscitative ultrasound course. Visiting professor at *Wellington Regional Hospital*, February 2020, Wellington, New Zealand.
- **Marat Slessarev.** Destinations unknown: Surprising twists on the road to developing therapeutic strategies for central nervous system repair. *Discover Roberts: Community Presentation Series*, February 2020. London, Canada.
- **Karen Bosma.** Generation vape: the new era of lung injury. *Community event at the London Museum*, March 2020. London, Canada.
- **Neil Parry.** How Canadian systems have adapted during a pandemic: BC, Alberta and Ontario Perspective (May 2020); Penetrating neck trauma (June 2020). *Trauma Association of Canada*, Zoom.
- **Marat Slessarev.** Declaring death by neurologic criteria and updates in organ donation, *Grand Rounds*, September 2020, Brantford, Canada.
- **Robert Arntfield.** COVID-19 in Canada. *Société De Réanimation de Langue Française*, September 2020, Paris, France.
- **Karen Bosma.** How do I approach the “difficult to wean” patient? *Canadian Critical Care Trials Group*, October 2020, Toronto, Canada.
- **Karen Bosma.** Moderator. Operationalizing research ethically & rigorously during a pandemic, *Critical Care Canada Forum (CCCF)*, October 2020, Toronto, Canada.
- **Kimia Honarmand.** The impact of the Covid-19 pandemic on healthcare workers: a survey study. *Critical Care Canada Forum (CCCF)*, October 2020, Toronto, Canada.
- **Robert Arntfield.** Critical care ultrasound - How to train and create programs for training. *Argentino e Internacional de Terapia Intensiva – eSATI (Intensive Care)*, November 2020, Buenos Aires, Argentina.
- **Davy Cheng.** 1) Opening welcome lecture: Artificial intelligence in healthcare: roles of anesthesiology ([Watch the presentation here](#)), 2) Plenary session “Variation in postoperative management”: Fast track or ultra-fast track cardiac recovery ([Watch the presentation here](#)). *35th EACTA Annual Meeting*, November 2020, Grenoble, France.
- **Davy Cheng.** Guidelines for anesthesia and perioperative care in the context of a coronavirus outbreak. *Euroanesthesia & Intensive Care Congress*, November 2020, Barcelona, Spain.
- **Davy Cheng.** Living with your enemy in the coming years - How COVID-19 changes the anaesthetic practices worldwide. *Society of Anaesthetists of Hong Kong (SAHK) AGM*, December 2020. [Watch the presentation here.](#)
- **Davy Cheng.** COVID-19, international collaborations and diversity. *Chinese American Society of Anesthesiologists (CASA) annual meeting*, December 2020.

- **Robert Leeper.** Trauma in Southern Ontario (December 2020) and acute care surgery: perspectives on intra-operative consultations (December 2020); *Trauma Association of Canada*.
- **Kimia Honarmand.** Adoption of novel in situ perfusion technologies in Canada: setting the stage - Utilization of in situ perfusion: donation and critical care. *Canadian Donation and Transplantation Research Program (CDTRP) Annual Meeting*, December 2020.

Podcasts

- **Neil Parry.** Trauma resuscitation, REBOA and mentorship. Cold Steel: Canadian Journal of Surgery Podcast. March 2020. [Listen to the podcast here.](#)
- **Neil Parry.** COVID 19 and Canadian surgery. Cold Steel: Canadian Journal of Surgery Podcast. April 2020. [Listen to the podcast here.](#)

CCW Research Media Coverage



London, Ont. researchers examining use of A.I. to diagnose COVID-19 through lung ultrasounds.

[Listen to Dr Robert Arntfield on Global News.](#)

All Media Coverage

- London researchers search for new ways to fight the pandemic. *TVO*. May 2020. **Robert Arntfield.** [Read the story here.](#)
- Coronavirus: Survey aims to identify supports for front-line hospital workers in southwestern Ontario. *Global News National*. August 2020. **Kimia Honarmand.** [Read the full interview here.](#)
- Researchers examining pandemic's effect health-care workers. *Blackburn News*. August 2020. **Kimia Honarmand.** [Read the full interview here.](#)
- Meet London's COVID-19 dream team: Dr. Marat Slessarev. *Global News Radio (980 CFPL)*. September 2020. **Marat Slessarev.** [Listen to the interview here.](#)
- Meet Dr. Slessarev, researcher at Lawson and Western University Schulich School of Medicine, Dentistry. *Global News*. September 2020. **Marat Slessarev.** [Watch the interview here.](#)

- Lawson study to examine effects of pandemic on region's frontline health care workers. *CTV London*. August 2020. **Kimia Honarmand**. [Watch the interview here.](#)
- The impact of the COVID-19 pandemic on the personal & professional lives of frontline healthcare workers. *980 CFPL AM Radio*. August 2020. **Kimia Honarmand**.

Other Publications

CCW co-authorship

- D'Aragon F et al. Variability in deceased donor care in Canada: a report of the Canada-DONATE cohort study. *Can J Anaesth*. **CCW co-author: IM Ball**. [Read the article here.](#)
- Siemieniuk RAC et al. Drug treatments for covid-19: living systematic review and network meta-analysis. *BMJ*. **CCW co-author: K Honarmand**. [Read the article here.](#)
- Agarwal A et al. High flow nasal cannula for acute hypoxemic respiratory failure in patients with COVID-19: systematic reviews of effectiveness and risk of aerosolization, dispersion and infection transmission. *Can J Anaesth*. **CCW co-authors: J Basmaji, K Honarmand**. [Read the article here.](#)
- Blaiwas M et al. Creation and testing of a deep learning algorithm to automatically identify and label vessels, nerves, tendons, and bones on cross-sectional point-of-care ultrasound scans for peripheral intravenous catheter placement by novices. *J Ultrasound Med*. **CCW co-author: R Artinfield**. [Read the article here.](#)
- Frenette AJ et al. Worldwide management of donors after neurological death: a systematic review and narrative synthesis of guidelines. *Can J Anaesth*. **CCW co-author: IM Ball**. [Read the article here.](#)
- Zworth M et al. Provision of medical assistance in dying: a scoping review. *BMJ Open*. **CCW co-author: IM Ball**. [Read the article here.](#)
- Heyland DK et al. Promotion of regular oesophageal motility to prevent regurgitation and enhance nutrition intake in long-stay ICU patients. A multicenter, phase II, sham-controlled, randomized trial: The PROPEL study. *Crit Care Med*. **CCW co-author: C Martin**. [Read the article here.](#)
- Dale CM et al. Education experiences of adult subjects and caregivers for mechanical insufflation-exsufflation at home. *Respir Care*. **CCW co-author: D Leasa**. [Read the article here.](#)
- Sponga S et al. Bridge to heart transplantation in patients with cardiogenic shock: a 20-year experience with two different surgical strategies. *J Cardiovasc Med (Hagerstown)*. **CCW co-author: AD Nagpal**. [Read the article here.](#)
- Singh G et al. Transfusion thresholds for adult respiratory extracorporeal life support: an expert consensus document. *Can J Cardiol*. **CCW co-author: AD Nagpal**. [Read the article here.](#)
- Li Z et al. Cost-effectiveness analysis of frailty assessment in older patients undergoing coronary artery bypass grafting surgery. *Can J Cardiol*. **CCW co-author: AD Nagpal**. [Read the article here.](#)
- Zamper RPC et al. Management of a bi-caval dual lumen cannula clot obstruction after TEE

guided diagnosis: a case-report. *Rev Bras Anesthesiol*. CCW co-author: **AD Nagpal**. [Read the article here.](#)

- Yin C et al. Efferocytic defects in early atherosclerosis are driven by GATA2 overexpression in macrophages. *Front Immunol*. CCW co-author: **AD Nagpal**. [Read the article here.](#)
- Kobayashi L et al. American Association for the Surgery of Trauma-World Society of Emergency Surgery guidelines on diagnosis and management of abdominal vascular injuries. *J Trauma Acute Care Surg*. CCW co-author: **N Parry**. [Read the article here.](#)
- Kobayashi L et al. American Association for the Surgery of Trauma-World Society of Emergency Surgery guidelines on diagnosis and management of peripheral vascular injuries. *J Trauma Acute Care Surg*. CCW co-author: **N Parry**. [Read the article here.](#)
- Allen L et al. Impact of interhospital transfer on patient outcomes in emergency general surgery. *Surgery*. CCW co-author: **NG Parry**. [Read the article here.](#)
- Vogt KN et al. Patterns of complex emergency general surgery in Canada. *Can J Surg*. CCW co-author: **NG Parry**. [Read the article here.](#)
- Leppäniemi A et al. Executive summary: WSES guidelines for the management of severe acute pancreatitis. *J Trauma Acute Care Surg*. CCW co-author: **N Parry**. [Read the article here.](#)
- Coccolini F et al. Liver trauma: WSES 2020 guidelines. *World J Emerg Surg*. CCW co-author: **N Parry**. [Read the article here.](#)
- Ball CG et al. A 30-day prospective audit of all inpatient complications following acute care surgery: How well do we really perform? *Can J Surg*. CCW co-author: **N Parry**. [Read the article here.](#)
- Pandian V et al. Comparison of surgical cricothyroidotomy training: a randomized controlled trial of a swine model versus an animated robotic manikin model. *Trauma Surg Acute Care Open*. CCW co-author: **WR Leeper**. [Read the article here.](#)
- Fraser DD et al. Novel outcome biomarkers identified with targeted proteomic analyses of plasma from critically ill coronavirus disease 2019 patients. *Crit Care Explor*. CCW co-authors: **M Slessarev, C Martin**. [Read the article here.](#)
- Fraser DD et al. Endothelial injury and glycocalyx degradation in critically ill coronavirus disease 2019 patients: implications for microvascular platelet aggregation. *Crit Care Explor*. CCW co-authors: **M Slessarev, C Martin, KJ Bosma**. [Read the article here.](#)
- Fraser D et al. Inflammation profiling of critically ill coronavirus disease 2019 patients. *Crit Care Explor*. CCW co-authors: **M Slessarev, C Martin**. [Read the article here.](#)
- Su Y et al. Foxo3 in cardiac ischemia reperfusion injury in heart transplantation: a new regulator and target. *Am J Transplant*. CCW co-author: **T Mele**. [Read the article here.](#)
- Choi J et al. Harnessing the versatility of invariant NKT cells in a stepwise approach to sepsis immunotherapy. *J Immunol*. CCW co-author: **TS Mele**. [Read the article here.](#)
- Delaplain PT et al. Revisiting the Surgical Infection Society Delphi analysis of the research agenda in surgical infections: advancements and unanswered questions. *Surg Infect (Larchmt)*. CCW co-author: **T Mele**. [Read the article here.](#)

- Parsons Leigh J et al. Improving gender equity in critical care medicine: a protocol to establish priorities and strategies for implementation. *BMJ Open*. CCW co-authors: **K Bosma, T Mele**. [Read the article here.](#)
- Meilleur CE et al. Discordant rearrangement of primary and anamnestic CD8+ T cell responses to influenza A viral epitopes upon exposure to bacterial superantigens: implications for prophylactic vaccination, heterosubtypic immunity and superinfections. *PLoS Pathog*. CCW co-author: **TS Mele**. [Read the article here.](#)
- Zhao D et al. The role of miR-711 in cardiac cells in response to oxidative stress and its biogenesis: a study on H9C2 cells. *Cell Mol Biol Lett*. CCW co-author: **T Mele**. [Read the article here.](#)
- Meilleur CE et al. Bacterial superantigens expand and activate, rather than delete or incapacitate, preexisting antigen-specific memory CD8+ T cells. *J Infect Dis*. CCW co-author: **TS Mele**. [Read the article here.](#)
- Chalil A et al. Acute hemorrhagic encephalitis related to COVID-19. *Neurol Clin Pract*. CCW co-author: **K Bosma**. [Read the article here.](#)
- Eddy RL et al. Pulmonary functional MRI and CT in a survivor of bronchiolitis and respiratory failure caused by e-cigarette use. *Chest*. CCW co-author: **KJ Bosma**. [Read the article here.](#)
- Chaudhuri D et al. Dosing fluids in early septic shock. *Chest*. CCW co-author: **I Ball**. [Read the article here.](#)
- Lau VI et al. Economic evaluation alongside the probiotics to prevent severe pneumonia and endotracheal colonization trial (E-PROSPECT): study protocol. *BMJ Open*. CCW co-author: **J Basmaji**. [Read the article here.](#)
- Gupta HO et al. NSAIDs - Harmful or helpful for fracture healing in orthopedic trauma patients? *Injury*. CCW co-author: **T Mele**. [Read the article here.](#)
- Blaiwas M et al. DIY AI, deep learning network development for automated image classification in a point-of-care ultrasound quality assurance program. *J Am Coll Emerg Physicians Open*. CCW co-author: **R Arntfield**. [Read the article here.](#)
- Gill SE et al. Transcriptional profiling of leukocytes in critically ill COVID19 patients: implications for interferon response and coagulation. *Intensive Care Med Exp*. CCW co-authors: **M Slessarev, C Martin**. [Read the article here.](#)
- Duclos C et al. Protocol for the prognostication of consciousness recovery following a brain injury. *Front Hum Neurosci*. CCW co-author: **M Slessarev**. [Read the article here.](#)
- Fraser DD et al. Metabolomics profiling of critically ill coronavirus disease 2019 patients: identification of diagnostic and prognostic biomarkers. *Crit Care Explor*. CCW co-authors: **M Slessarev, C Martin**. [Read the article here.](#)
- Kassirian S et al. Diagnosis and management of acute respiratory distress syndrome in a time of COVID-19. *Diagnostics (Basel)*. CCW co-author: **R Taneja**. [Read the article here.](#)
- Dodek PM et al. Moral distress and other wellness measures in Canadian critical care physicians. *Ann Am Thorac Soc*. CCW co-author: **CM Martin**. [Read the article here.](#)

- Yanagawa B et al. Platelet transfusion is not associated with an increased risk of mortality: a systematic review and meta-analysis of 101,511 patients in observational studies. *Ann Thor Surg*. **CCW co-author: D Cheng.** [Read the article here.](#)
- Li Z et al. Measurement and prognosis of frail patients undergoing transcatheter aortic valve implantation: a systematic review and meta-analysis. *BMJ Open*. **CCW co-author: D Cheng.** [Read the article here.](#)
- Teran F et al. Focused transesophageal echocardiography during cardiac arrest resuscitation: JACC review topic of the week. *J Am Coll Cardiol*. **CCW co-author: R Arntfield.** [Read the article here.](#)
- Wong et al. A. Recommendations for core critical care ultrasound competencies as a part of specialist training in multidisciplinary intensive care: a framework proposed by the European Society of Intensive Care Medicine (ESICM). *Crit Care*. **CCW co-author: R Arntfield.** [Read the article here.](#)

We want to hear from you!

[Click here to email us your thoughts on this e-Newsletter or to send us your latest research activities for the upcoming edition of the CReST.](#)

