

**CURRICULUM VITAE**  
**Constantine J. Karvellas, M.D., S.M., FRCPC**  
 (September 9th, 2017)

**Current Appointment:**

Associate Professor of Medicine  
 University of Alberta, Faculty of Medicine and Dentistry

Adjunct Professor  
 University of Alberta, School of Public Health Sciences

Business Address:      Division of Gastroenterology  
                                  Department of Critical Care Medicine  
                                  1-40 Zeidler Leducor Centre  
                                  Edmonton, AB, Canada  
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Citizenship:              Canadian, Greek

**Education and Training:**

1993 -1997	<b>B.Sc. (Chemistry) with Great Distinction</b> , McGill University, Montreal, Canada.
1997– 2001	<b>MD</b> with Honors in Research – University of Alberta, Edmonton, Canada.
2001 - 2004	<b>Resident</b> - Division of Internal Medicine University of Alberta, Edmonton
2004- 2006	<b>Resident</b> – Division of Gastroenterology, University of Alberta, Edmonton
2006–2007	<b>Specialist Registrar (CIHR fellow)</b> - Institute of Liver Studies, King’s College Hospital, London, United Kingdom (Supervisor: Dr Julia Wendon)
2007- 2009	<b>Fellow</b> - Critical Care Medicine, University of Alberta, Edmonton, Canada
2010-2012	<b>Masters of Science (Epidemiology)</b> , Harvard School of Public Health, Boston, MA, USA.

**Licensure and Certification:**

2002	Licentiate of the Medical Council of Canada (#92413)
2005	Fellow, Royal College of Physicians of Canada (Internal Medicine #593180)
2006	Fellow, Royal College of Physicians of Canada (Gastroenterology)
2009	Fellow, Royal College of Physicians of Canada (Critical Care Medicine)
2009	License, College of Physicians and Surgeons of Alberta (#014218)

**Academic Appointments:**

2009-2010	Assistant Clinical Professor of Medicine, University of Alberta, Edmonton, Canada
2009-2010	Assistant Clinical Professor (Critical Care Medicine), University of Alberta.
2010-2016	Assistant Professor of Medicine, University of Alberta, Edmonton, Canada
2010-2016	Adjunct Assistant Professor (Cross-Appointment), Critical Care Medicine, University of Alberta, Edmonton, Canada
2016-present	Associate Professor of Medicine, University of Alberta, Edmonton, Canada
2016-present	Adjunct Associate Professor (Cross-Appointment), Critical Care Medicine, University of Alberta, Edmonton, Canada

2016-present Adjunct Professor (Cross-Appointment), School of Public Health Sciences,  
University of Alberta, Edmonton, Canada

### **Hospital Appointments:**

2009-Present Attending Physician (Gastroenterology/Critical Care Medicine) and Full-time  
Medical Staff, AHS, University of Alberta, Hospital, Edmonton, Alberta.  
2007-2009 Locum Attending Physician (Gastroenterology), AHS, Royal Alexandra  
Hospital, Edmonton, Canada.

### **Leaves: None**

### **Awards/Honors:**

1991 United World College Scholarship (from Alberta Heritage Fund).  
1994 J.W. McConnell Award, McGill University, Montreal, Canada.  
1995 NSERC Summer Studentship, Department of Chemistry, University of Alberta  
1996 J.W. McConnell Award, McGill University, Montreal, Canada.  
1996 Principal's Student-Athlete Honor Roll, McGill University, Montreal, Canada.  
1996 R. F. Robertson Award for Excellence in Physical Chemistry (McGill)  
1996 J.W. McConnell Award (in-course scholarship), McGill University, Montreal, Canada.  
1996 Heritage Medical Foundation (AHFMR) Summer Studentship, University of Alberta.  
1997 ICI Bursary for Excellence in Theoretical Chemistry, McGill University, Canada.  
1997 Heritage Medical Foundation (AHFMR) Summer Studentship, University of Alberta  
1998 Heritage Medical Foundation (AHFMR) Summer Studentship, University of Alberta  
2001 Honors in Research, University of Alberta, Edmonton, Canada.  
2002 Russell Taylor Award, Division of Cardiology, University of Alberta, Edmonton,  
Canada.  
2006 **CAG/CIHR/Schering Fellowship Award** (King's College London) for "The Effect of  
Extracorporeal Liver Support Systems in Acutely Decompensated Chronic Liver Failure:  
Mechanisms of Action" (Supervisor: Dr. Julia Wendon)

### **Professional Memberships and Administrative Activities:**

#### Memberships:

2001-present Member of the Canadian Medical Association  
2001-present Member of Alberta Medical Association  
2005-present Royal College of Physicians and Surgeons of Canada  
2006-2007 Member of the General Medical Council (UK)  
2007-present Member of the American Association for the Study of the Liver  
2009-present Member of the Canadian Association for the Study of Liver  
2009-present Member of the Society of Critical Care Medicine (USA)  
2009-present Member of Alberta Society of Gastroenterology  
2013-present Member of the United States Acute Liver Failure Study Group (US ALFSG)  
2013-present Member of the Canadian Critical Care Trials Group (CCCTG)

### **Grant Review, Advisory Committees, Scientific Societies:**

2011-Present Alberta Institute for Transplant Sciences, Member  
2012-Present Canadian Association for the Study of the Liver Research Committee

2012-2015 Canadian Association for the Study of the Liver & Canadian Liver Foundation operating grant review committee

### **Editorial Activities:**

2011-present Member Editorial Board, *Canadian Journal of Gastroenterology and Hepatology*, *World Journal of Critical Care Medicine*, *Advances in Critical Care*, *Austin Journal of Gastroenterology*.

Current Reviewer Activities, *Annals of Internal Medicine*, *Canadian Medical Association Journal*, *BMC Nephrology*, *Liver Transplantation*, *Liver International*, *Critical Care*, *Critical Care Medicine*, *BMC Infectious Diseases*, *Hepatology International*, *Alimentary Pharmacology and Therapeutics*, *PLOS1*, *Journal of Hepatology*, *Hepatology*, and *the Lancet*, *Gastroenterology and GUT*.

### **Institutional Administrative and Leadership Contributions:**

#### **Major Committees:**

2016-present Member of Executive committee, US Acute Liver Failure Study Group

2016-present Member of Program Improvement Work Group, Society of Critical Care Medicine. (SCCM)

2015-present Member of Liver Management Task Force, Society of Critical Care Medicine (SCCM)

2013- present Member of Ancillary studies committee, US Acute Liver Failure Study Group

2013- present Member of Publications committee, US Acute Liver Failure Study Group

2012- 2015 Member of Research Committee, Canadian Association for the Study of Liver

2011- present Lead for extracorporeal hepatic therapies, Intensive Care Unit, University of Alberta.

### **Teaching Contributions:**

#### **Advisees:**

2017-present Beverley Kok (Clinical Research Fellow)  
Project: Impact of obesity in cirrhotic patients with septic shock  
Funding: National Institutes of Health: **NIDDK U01-DK-583**  
Role: Primary supervisor  
Current position: Clinical Research fellow, University of Alberta  
Awards: Second place, DCCM research day 2017

2016-present Amanda Ewasiuk (Masters Student)  
Project: Liver transplantation in Acute on Chronic Liver Failure  
Funding: National Institutes of Health: **NIDDK U01-DK-583**  
Role: Primary supervisor  
Current position: Masters of Medicine Program, University of Alberta

2016-present Sheela Maria Xavier Ragesh (Masters Student)  
Project: Cardiac Surgery in Cirrhosis

Funding: National Institutes of Health: **NIDDK U01-DK-583**  
Role: Primary supervisor  
Current position: Masters of Medicine Program, University of Alberta  
Awards: 1<sup>st</sup> place poster presentation, Department of Medicine Research Day 2017

- 2016-present Dr. Christian Rueda-Clausen  
Project: *Survival predictors in patients undergoing liver transplant for non-alcoholic steatohepatitis*  
Funding: 2016 Shire-CAG Resident Research Award (\$5000).  
Role: Primary supervisor  
Current position: Internal Medicine resident, University of Alberta
- 2016-present Tayne Hewer (Masters Student)  
Project: TBA.  
Funding: Local  
Role: Co-supervisor  
Current position: MSc Translational Medicine program, University of Alberta
- 2015-2016 Aditi Datta (post-doctoral)  
Project: Acute on Chronic Liver Failure: A Canadian epidemiological study.  
Funding: None  
Role: Supervisor  
Current position: Research Assistant (Dr. Karvellas)
- 2015-present Jide Olabode, BPT  
Project: Impact of critical illness on long-term functional outcomes.  
Funding: None  
My role: Master's supervisor  
Current position: Masters of Science program, Walden University.
- 2014-present Jaime Speiser Ms (Phd Candidate)  
Project: Late APAP study  
Funding: NIDDK (U-01 grant)  
Role: Thesis committee member, senior author
- 2013-2015 Fang, Amy MD  
Project: Prevalence and outcome of critically ill cirrhotic patients admitted to the ICU: A retrospective cohort study.  
Funding: None  
My role: Supervisor  
Current position: Anesthesia Resident, University of Alberta.
- 2013-2015 Chung, Brendon, M.D.  
Project: The impact of cirrhosis on cardiac surgery: a retrospective cohort study.  
Funding: None  
My role: supervisor  
Current Position: Anesthesia Resident, University of Alberta.
- 2013-2015 DeSousa, Filipe Cardoso, M.D.  
Projects: 'HBV-ALF reactivation due to immunosuppressant therapy'

'ICU readmission post liver transplantation'  
 'Preoperative predictors of poor outcome for liver transplantation'  
 'MELD 40...'

Funding: GAMBRO

My Role: Primary Supervisor

Current position: Critical Care Trainee, King's College Hospital, London, UK.

- 2012-present Kaur, Gurnit, M.Sc.  
 Projects: "Ophthalmic acid as an oxidative biomarker in acute liver failure"  
 Funding: Transplant Fund Value Added  
 My Role: Thesis committee member  
 Current position: Graduate student, University of Alberta
- 2011- 2014 Zafrina Poonja, BSc.  
 Projects: "Paucity of palliation in cirrhotic patients: a retrospective study and needs assessment."  
 "Liver transplantation in the critically ill: a multicenter Canadian retrospective cohort study."  
 Funding: Transplant Fund Value Added  
 My Role: Primary Supervisor  
 Current position: Medical Student, Faculty of Medicine, University of Saskatchewan
- 2010- 2011 Hina Vahidy, BSc.  
 Projects: "Liver transplantation in the critically ill: a multicenter Canadian retrospective cohort study."  
 Funding: Wynne Rigal Summer Research Award.  
 My Role: Primary Supervisor  
 Current position: Medical Student, Faculty of Medicine, University of Saskatchewan

#### Classroom Instruction:

- 2010-present MED 521/DDS 506  
 Gastroenterology and Nutrition Case Based Tutorial Invigilator
- 2010-present MED 521/DDS 506  
 Gastroenterology and Nutrition Whole Class Lecture (Liver Physiology)
- 2011-present MED 519/529 Gilbert Scholars Clinical Teaching.

#### CME Instruction:

- 2009 Pediatric ICU Rounds: "Current evidence for extracorporeal liver support in acute and acute on chronic liver failure", University of Alberta, 10 December, 2009.
- 2010 Neurosurgery Rounds. "The role of ICP monitoring in Acute Liver failure" April 2010.
- 2011 "ICU Management of Acute Liver Failure in 2011". Critical Care Grand Rounds. University of Alberta. October 4th, 2011

2013	Neurology Residents Academic Halfday: hepatic encephalopathy'
2014	Emergency Medicine Grand Rounds: Liver Pearls for the Emergency Physician
2015	“What’s new in Critical Care Hepatology”. Critical Care Grand Rounds. University of Alberta. January 20 <sup>th</sup> , 2015.
2015	Neurology Residents Academic Halfday: hepatic encephalopathy'. March 27,2015.
2016	Management Issues in Acute on Chronic Liver Failure. GI Grand Rounds. February 1 <sup>st</sup> 2016.

### **Clinical Instruction and Supervision:**

2009-Present	Attending Physician, Gastroenterology & Hepatology, University of Alberta Hospital, Edmonton, Alberta, Canada
2009-Present	Attending Physician, E. Garner King Intensive Care Unit, University of Alberta Hospital, Edmonton, Alberta, Canada

### **Clinical Contributions:**

#### **Current Clinical Service (University of Alberta Hospital):**

In-Hospital Consultation/Attending in Hepatology, 7 weeks/year  
 In-Hospital Consultation/Attending in Gastroenterology, 2weeks/year  
 In-Hospital Consultation/Attending in Critical Care Medicine 12 weeks/year  
 Endoscopy: 1 half day per week

### **Research Grants:**

2010-2015	Schering-Plough/Merck Canada at arms length Grant Title: Renal biomarkers in critically ill patients with acute on chronic liver failure assessed for liver transplantation. Role: Principal Investigator. <b>Total Budget: \$25,000.00.</b> <b>Progress:</b> Through funding from this grant, we have been able to create a database of acute on chronic liver failure patients at the University of Alberta. We are currently attempting to assimilate data from other sites across Canada before publishing. We have not been successful so far in collecting biosamples on ACLF patients.
2010-2015  critically transplantation.	Transplant Fund Value Added Grant. Title: Validation of pre-operative scoring systems and renal biomarkers in ill patients with acute on chronic liver failure assessed for liver Role: Principal Investigator.

**Total Budget: \$25,000.00.**

**Works of scholarship:** This grant enabled a comprehensive analysis of the role of liver transplant in the critically ill across Canada. This work was published recently in *Critical Care: Crit Care. 2013 Feb 9;17(1):R28.*

- 2011-2015 Department of Critical Care Medicine Grant.  
Title: Ophthalmic acid as an oxidative biomarker in patients with acute liver failure.  
Role: Principal Investigator.  
Total Budget: \$10,000.00.  
**Works of scholarship:** The results of this study were negative. Manuscript is currently under review with **PLoS One**
- 2011-2015 Transplant Fund Value Added Grant  
Title: Ophthalmic acid as an oxidative biomarker in patients with acute liver failure.  
Role: Principal Investigator.  
Total Budget: \$25,000.00.  
**Works of scholarship:** The results of this study were negative. Manuscript is currently under review with **PLoS One**
- 2012-2015 Department of Critical Care Medicine Grant.  
Title: Identification of novel biomarkers in acute liver failure by in-vitro proton magnetic resonance spectroscopy.  
Role: Principal Investigator.  
Total Budget: \$10,000.00.  
**Works of scholarship:** This grant paid for bio banking and analysis of samples in patients with acute liver failure as part of an international collaboration (Mark McPhail, Imperial College London UK). This work has been recently published in *Crit Care Med. 2013 Nov;41(11):2543-50.*

**Currently Active Grants:**

- 2013-2020 National Institutes of Health: **NIDDK U01-DK-583**  
Title: United States Acute Liver Failure Study Group  
Role: Site (local) Principal Investigator  
Total Budget: 2.5 million dollars (overall study)  
**(\$180,000 for University of Alberta 2013-2016)**  
**Works of scholarship:** This funding has enabled us to enroll patients with Acute Liver Failure and collect data and biosamples for the US ALFSG clinical and sample registry (ongoing). As a part of this international organization I am also an end-user by analyzing data from this database/registry for investigator-initiated studies.
1. **Studies:** Karvellas et al., *Liver Transpl.* 2015 Jan;21(1):4-12
  2. Karvellas et al., *Clin Gastroenterol Hepatol.* 2014 Nov;12(11):1942-9.
  3. Karvellas et al., *Crit Care Med.* 2014 May;42(5):1157-67.
  4. Speiser JL, Lee WM, **Karvellas** CJ. *PLoS One.* 2015 Apr 17;10(4):e0122929.
  5. Kaur G, Leslie EM, Tillman H, Lee WM, Swanlund DP, Karvellas CJ; *PLoS One.* 2015 Sep 25;10(9):e0139299.

2016-2018                    University Hospital Foundation (University of Alberta)  
Title: Prognostic impact of Liver and Brain Fatty Acid Binding Protein in  
Acetaminophen-induced acute liver failure.  
Role: Principal Investigator  
Total Budget: \$35,000.00

2017-2019                    **Astellas Alberta Transplant Institute/Canadian National Transplant  
Research Program**  
Research Innovation Grant competition  
Title: Prognostic impact of Liver Fatty Acid Binding Protein in Acute Liver  
Failure  
Role: Principal Investigator  
Total Budget: \$25,000.00



**Publications:****Peer-Reviewed: Original Research**

1. Lall MS, **Karvellas C**, Vederas JC. Beta-lactones as a new class of cysteine proteinase inhibitors: inhibition of hepatitis A virus 3C proteinase by N-Cbz-serine beta-lactone. *Org Lett.* 1999 Sep 9;1(5):803-6. **IF 6.3.**
2. **Karvellas C**, Williams C.I., Whitehead M.A., Jean-Claude B.J. Semi-empirical treatment of intramolecular nitrogen heterocyclic ring closure. *Theochem*, 2001, N. 535, p 199-215. **IF 1.6**
3. **Karvellas CJ**, Sawyer M, Hamilton M, Mackey JR. Effect of capecitabine on mean corpuscular volume in patients with metastatic breast cancer. *Am J Clin Oncol.* 2004 Aug;27(4):364-8. **IF 2.6**
4. **Karvellas CJ**, Gibney N, Kutsogiannis D, Wendon J, Bain VG. Bench-to-bedside review: Current evidence for extracorporeal albumin dialysis systems in liver failure. *Crit Care.* 2007 Jun 8;11(3):215. **IF 5.1**
5. **Karvellas CJ**, Fedorak RN, Hanson J, Wong CK. Increased risk of colorectal cancer in ulcerative colitis patients diagnosed after 40 years of age. *Can J Gastroenterol.* 2007 Jul;21(7):443-6. **IF 2.0**
6. Bernal W, Hall C, **Karvellas CJ**, Auzinger G, Sizer E, Wendon J. Arterial ammonia and clinical risk factors for encephalopathy and intracranial hypertension in acute liver failure. *Hepatology.* 2007 Dec;46(6):1844-52. **IF 11.2**
7. **Karvellas CJ**, Bagshaw SM, McDermid RC, Stollery DE, Gibney RT. Acetaminophen-induced acute liver failure treated with single-pass albumin dialysis: report of a case. *Int J Artif Organs.* 2008 May;31(5):450-5. **IF 1.5**
8. **Karvellas CJ**, Pink F, McPhail M, Cross T, Auzinger G, Bernal W, Sizer E, Kutsogiannis DJ, Eltringham I, Wendon JA. Predictors of bacteraemia and mortality in patients with acute liver failure. *Intensive Care Med.* 2009 Aug;35(8):1390-6. **IF 5.5**
9. **Karvellas CJ**, Bagshaw SM, McDermid RC, Stollery DE, Bain VG, Gibney RT. A Case-Control Study of Single-Pass Albumin Dialysis for Acetaminophen-Induced Acute Liver Failure. *Blood Purif.* 2009 Jul 4;28(3):151-158. **IF 1.9**
10. **Karvellas CJ**, Pink F, McPhail M, Austin M, Auzinger G, Bernal W, Sizer E, Kutsogiannis DJ, Eltringham I, Wendon JA. Bacteremia, Acute Physiology and Chronic Health Evaluation II and Modified End Stage Liver Disease are independent predictors of mortality in critically ill nontransplanted patients with acute on chronic liver failure. *Crit Care Med.* 2010 Jan;38(1):121-6. **IF 6.3**
11. **Karvellas CJ**, Wendon J, Safinia N, Auzinger G, Sizer E, Portal AJ, Heaton N, Rela M, Muiesan P, Heneghan MA, O'Grady JG, Bernal W. Long-term outcomes for patients transplanted for acetaminophen induced acute liver failure; no worse than for other etiologies. *Liver Int.* 2010 Jul;30(6):826-33. **IF 4.4**
12. Bagshaw SM, Bellomo R, Devarajan P, Johnson C, **Karvellas CJ**, Kutsogiannis DJ, Mehta R, Pannu N, Romanovsky A, Sheinfeld G, Taylor S, Zappitelli M, Gibney RT. Review article: Acute kidney injury in critical illness. *Can J Anaesth.* 2010 Nov;57(11):985-998. **IF 2.5**
13. Bagshaw SM, Bellomo R, Devarajan P, Johnson C, **Karvellas CJ**, Kutsogiannis DJ, Mehta R, Pannu N, Romanovsky A, Sheinfeld G, Taylor S, Zappitelli M, Gibney RT. Review article: Renal support in critical illness. *Can J Anaesth.* 2010 Nov;57(11):999-1013. **IF 2.5**
14. **Karvellas CJ**, Farhat MR, Sajjad I, Mogensen SS, Leung AA, Wald R, Bagshaw SM. A comparison of early versus late initiation of renal replacement therapy in critically ill patients with acute kidney injury: a systematic review and meta-analysis. *Crit Care.* 2011 Feb 25;15(1):R72. **IF 5.1**
15. **Karvellas CJ**, McPhail M, Pink F, Asthana S, Muiesan P, Heaton N, Auzinger G, Bernal W, Eltringham I, Wendon JA. Bloodstream infection after elective liver transplantation is associated with increased mortality in patients with cirrhosis. *J Crit Care.* 2011 Oct;26(5):468-74. **IF 2.2**
16. Lescot T, **Karvellas CJ**, Sanchez-Pena P, Deme M, Abdennour L., Massive upper gastrointestinal

- hemorrhage caused by an arterio-esophageal fistula. *Intensive Care Med.* 2011 Sep;37(9):1551-2. **IF 5.5**
17. **Karvellas CJ**, de Souza IA, Gibney RT, Bagshaw SM. Association between implementation of an intensivist-led medical emergency team and mortality. *BMJ Qual Saf.* 2012 Feb;21(2):152-9. **IF 3.3**
  18. Kribben A, Gerken G, Haag S, Herget-Rosenthal S, Treichel U, Betz C, Sarrazin C, Hoste E, Van Vlierberghe H, Escorsell A, Hafer C, Schreiner O, Galle PR, Mancini E, Caraceni P, **Karvellas CJ**, Salmhofer H, Knotek M, Ginès P, Kozik-Jaromin J, Rifai K; HELIOS Study Group. Effects of Fractionated Plasma Separation and Adsorption on Survival in Patients with Acute-On-Chronic Liver Failure. *Gastroenterology.* 2012 Apr;142(4):782-789. **IF 13.9**
  19. de Souza IA, **Karvellas CJ**, Gibney RN, Bagshaw SM. Impact of intensive care unit admission during morning bedside rounds and mortality: a multi-center retrospective cohort study. *Crit Care.* 2012 May 3;16(3):R72. **IF 5.1**
  20. Lescot T, **Karvellas C**, Beaussier M, Magder S. Acquired Liver Injury in the Intensive Care Unit.. *Anesthesiology.* 2012 Oct;117(4):898-904. **IF 6.2**
  21. Lisboa LF, Asthana S, Kremer A, Swain M, Bagshaw SM, Gibney N and **Karvellas CJ**. Blood cytokine, chemokine and gene expression in cholestasis patients with intractable pruritis treated with a molecular adsorbent recirculating system: a case series. *Can J Gastroenterol.* 2012 Nov;26(11):799-805. **IF 2.0.**
  22. **Karvellas CJ**, Lescot T, Goldberg P, Sharpe MD, Ronco JJ, Renner EL, Vahidy H, Poonja Z, Chaudhury P, Kneteman NM, Selzner M, Cook EF and Bagshaw SM. Liver Transplantation in the Critically Ill: A Multi-Centre Canadian Retrospective Cohort Study. *Crit Care.* 2013 Feb 9; 17(1): R28. **IF 5.1**
  23. Lescot T, **Karvellas CJ**, Chaudhury P, Tchervenkov J, Paraskevas S, Barkun J, Metrakos P, Goldberg P, Magder S. Postoperative delirium in the intensive care unit predicts worse outcomes in liver transplant recipients. *Can J Gastroenterol.* 2013 Apr;27(4):207-12. **IF 2.0**
  24. Kutsogiannis DJ, Asthana S, Townsend DR, Singh G, **Karvellas CJ**. The incidence of potential missed organ donors in intensive care units and emergency rooms: a retrospective cohort. *Intensive Care Med.* 2013 Aug; 39(8): 1452-9. **IF 5.5**
  25. Possamai LA, McPhail MJ, Quaglia A, Zingarelli V, Abeles RD, Tidswell R, Puthuchery Z, Rawal J, **Karvellas CJ**, Leslie EM, Hughes RD, Ma Y, Jassem W, Shawcross DL, Bernal W, Dharwan A, Heaton ND, Thursz M, Wendon JA, Mitry RR, Antoniades CG. Character and Temporal Evolution of Apoptosis in Acetaminophen-Induced Acute Liver Failure. *Crit Care Med.* 2013 Nov; 41(11): 2543-50. **IF 6.3**
  26. Tillquist M, Leung R, Kutsogiannis DJ, Wischmeyer PE, **Karvellas CJ**, Preiser JC, Bird N, Kozar R, Heyland DK. Bedside Ultrasound Is a Practical and Reliable Measurement Tool for Assessing Quadriceps Muscle Layer Thickness. *JPEN J Parenter Enteral Nutr.* 2013 Aug 26. **IF 3.1**
  27. Poonja Z, Brisebois A, Veldhuyzen van Zanten S, Tandon P, Meeberg G, **Karvellas C**. Patients with Cirrhosis and Denied Liver Transplants Rarely Receive Adequate Palliative Care or Appropriate Management. *Clin Gastroenterol Hepatol.* 2014 Apr; 12(4): 692-8. **IF 6.5**
  28. **Karvellas CJ**, Fix OK, Battenhouse H, Durkalski V, Sanders C, Lee WM; for the U.S. Acute Liver Failure Study Group. Outcomes and Complications of Intracranial Pressure Monitoring in Acute Liver Failure: A Retrospective Cohort Study. *Crit Care Med.* 2014 May; 42(5): 1157-1167. **IF 6.3**
  29. **Karvellas CJ**, Cavazos J, Battenhouse H, Durkalski V, Balko J, Sanders C, Lee WM; US Acute Liver Failure Study Group. Effects of Antimicrobial Prophylaxis and Blood Stream Infections in Patients with Acute Liver Failure: a Retrospective Cohort Study. *Clin Gastroenterol Hepatol.* 2014 Nov;12(11):1942-9. **IF 6.5**
  30. Cardoso FS, **Karvellas CJ**, Kneteman NM, Meeberg G, Fidalgo P, Bagshaw SM. Respiratory rate at ICU discharge after liver transplant is an independent risk factor for ICU readmission within the same hospital stay: a nested case-control study. *J Crit Care.* 2014 Oct;29(5):791-6. **IF 2.2**

31. Du Y, **Karvellas CJ**, Baracos VE, Williams DC and Khadaroo R. Sarcopenia is a Predictor of Outcomes in Very Elderly Patients Undergoing Emergency Surgery. *Surgery*. 2014 Sep;156(3):521-7. **IF 3.1**
32. **Karvellas CJ**, Stravitz RT, Battenhouse H, Lee WM, Schilsky ML; for the US Acute Liver Failure Study Group. Therapeutic hypothermia in acute liver failure: A multi-center retrospective cohort analysis. *Liver Transpl*. 2015 Jan; 21(1):4-12. **IF 3.8**
33. Kupper S, **Karvellas CJ**, Khadaroo R, Widder SQ. Increased health services use by severely obese patients undergoing emergency surgery: a retrospective cohort study. *Can J Surg*. 2015 Feb; 58(1):41-7. **IF 1.6**
34. **Karvellas CJ**, Abraldes JA, Arabi Y, Kumar A. Appropriate and timely antimicrobial therapy in cirrhotic patients with spontaneous bacterial peritonitis-associated septic shock: a retrospective cohort study. *Aliment Pharmacol Ther*. 2015 Apr;41(8):747-57. **IF 5.5**
35. Speiser, J, Lee, WM, **Karvellas CJ**. Predicting outcome on admission and post-admission for acetaminophen-induced acute liver failure using classification and regression tree models. *PloS One*. 2015 Apr 17;10(4):e0122929. **IF 3.5**
36. Cardoso FS, **Karvellas CJ**, Kneteman NM, Meeberg G, Fidalgo P, Bagshaw SM. Postoperative Resource Utilization and Survival among Liver Transplant Recipients with MELD greater or equal to 40: A Retrospective Cohort Study. *Can J Gastroenterol Hepatol*. 2015 May;29(4):185-91. **IF 2.0**
37. Cardoso FS, Bagshaw SM, Abraldes JG, Kneteman NM, Meeberg G, Fidalgo P, Bagshaw SM, **Karvellas CJ**. Comorbidities have a limited impact on post-transplant survival in carefully selected cirrhotic patients: a population-based cohort study. *Ann Hepatol*. 2015;14(4):505-514. **IF 2.2**
38. Kaur G, Leslie EM, Tillman H, Lee WM, Swanlund DP, **Karvellas CJ**. Detection of Ophthalmic Acid in Serum from Acetaminophen-induced Acute Liver Failure Patients is More Frequent in Non-survivors. *PLoS One*. 2015 Sep 25;10(9):e0139299. **IF 3.5**
39. Nadim MK, Durand F, Kellum JA, Levitsky J, O'Leary JG, **Karvellas CJ**, Bajaj JS, Davenport A, Jalan R, Angeli P, Caldwell SH, Fernández J, Francoz C, Garcia-Tsao G, Ginès P, Ison MG, Kramer DJ, Mehta RL, Moreau R, Mulligan D, Olson JC, Pomfret EA, Senzolo M, Steadman RH, Subramanian RM, Vincent JL, Genyk YS. Management of the Critically Ill Patient with Cirrhosis: A Multidisciplinary Perspective. *Journal of Hepatology*. *J Hepatol*. 2016 Mar;64(3):717-35. **IF 11.3**
40. **Karvellas CJ**, Tillman H, Leung AA, Lee WM, Schilsky ML, Hameed B, Todd Stravitz R, McGuire BM, Fix OK; United States Acute Liver Failure Study Group. Acute Liver Injury and Acute Liver Failure from Mushroom Poisoning in North America. *Liver Int*. 2016 Jul;36(7):1043-50. **IF 4.9**.
41. Reuben A, Tillman H, Fontana R, Davern T, McGuire B, Stravitz RT, Durkalski V, Larson A, Liou I, Fix OK, Schilsky ML, McCashland T, Hay E, Murray N, Shaikh O, Ganger D, Zaman A, Han SH, Chung R, Smith A, Brown RS, Crippin J, Harrison J, Koch DG, Munoz S, Reddy R, Rossaro L, Satyanarayana R, Hassenein T, Hanje AJ, Olson J, Subramanian R, **Karvellas CJ**, Hameed B, Sherker A, Robuck P, Lee WM. Outcome in adults with acute liver failure (ALF) from 1998 to 2013: An observational cohort study. *Ann Intern Med*. 2016 Jun 7;164(11):724-32. **IF 17.8**.
42. Fix OK, Liou I, **Karvellas CJ**, Ganger DR, Forde KA, Subramanian RM, Boylan A, Hanje J, Stravitz RT, Lee WM; Acute Liver Failure Study Group. Development and Pilot of a Checklist for Management of Acute Liver Failure in the Intensive Care Unit. *PLoS One*. 2016 May 13;11(5):e0155500. **IF 3.5**
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#### **Peer reviewed: Invited Reviews**

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69. **Karvellas CJ**, Speiser JL, Tremblay M, Lee WM, Rose CF. In reply: Elevated FABP1 serum levels are associated with poorer survival in acetaminophen-induced acute liver failure. *Hepatology.* 2017 Apr 2. doi: 10.1002/hep.29194. [Epub ahead of print]
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### **Book Chapters:**

1. **Karvellas, CJ**. The Hepatorenal syndrome. In: *Encyclopedia of Intensive Care Medicine*. Editors Vincent JL, Hall J. Springer Publishers, Berlin, Germany 2012.
2. **Karvellas, CJ**. Stravitz RT. Liver Failure: Acute and Acute on Chronic. In: *Civetta, Taylor, & Kirby's Critical Care, 5<sup>th</sup> Edition*. Editors Gabrielli A, Layton AJ, Yu M. Lippencott Williams and Wilkins 2015 (in press).
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5. **Karvellas, CJ**. Murphy N. Chapter 71: *Diagnosis and Management of Liver Failure in the Adult*. In: *Critical Care Medicine: Principles of Diagnosis and Management in the Adult*. Editors: Joseph Parrillo and R. Phillip Dellinger. Elsevier 2017 (in press).

**Online-Only Publications, Monographs and Other:**

1. Khadaroo R., Karvellas C.J., Brindley P.G. Acute Care SINS: Surgical Insights for the Non-surgeon. Chapter 7: Liver and Portal Venous SINS. Canadian Journal of General Internal Medicine. Vol 9 No. 2 p45-53.

**Abstracts:**

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2. **Karvellas CJ**, Wong CKW, Fedorak R. Increased progression to colorectal cancer in ulcerative colitis patients over forty. Canadian Digestive Diseases Week, Banff, Canada, February 2003.
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4. **Karvellas CJ**, Ma M. The Use of Lamivudine and Hepatitis B Immune Globulin Might Allow for the Safe Use of HBV Infected Solid Organ Grafts. Canadian Association for the Study of Liver Meeting, Toronto, Canada, March 2006.
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12. **Karvellas, C.J.**, Farhat, MA, Sajjad, I, Mogensen , S, Wald, R and Bagshaw S. Timing of initiation of renal replacement therapy in acute kidney injury: a meta-analysis. *Critical Care Medicine* 2010, Vol.38, No.12 (Suppl): 385. Society of Critical Care Medicine Annual Congress, San Diego, USA, January 2011.
13. **C. J. Karvellas**; T. Lescot; H. Vahidy; P. Goldberg; P. Chaudhury; P. Metrakos; N. M. Kneteman; G. Meeberg; M. Sharpe; J. J. Ronco; E. L. Renner; E. Cook; S. M. Bagshaw When is it too late to transplant the critically ill cirrhotic? A Canadian collaboration. *Hepatology* 2011 Vol 54, No. 4 (suppl): **631**. American Association for the Study of Liver Meeting, San Francisco USA, November 2011.
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22. F Cardoso, S. Bagshaw, J. G. Abraldes, N Kneteman, G Meeberg, P Fidalgo, **C.J. Karvellas**. A simple model to predict 5-year survival after liver transplantation in patients with cirrhosis. *Can J Gastroenterol Hepatol* 2014, 28(Suppl A): A254 (February 2014). Canadian Digestive Diseases Week 2014 (Toronto, Canada), February 8<sup>th</sup>-11<sup>th</sup>, 2014.
23. F Cardoso, **C.J. Karvellas**, N Kneteman, G Meeberg, P Fidalgo, S Bagshaw. Postoperative resource utilization and survival among liver transplant recipients with Model for End-stage Liver Disease score  $\geq 40$ : a retrospective cohort study. *Critical Care* 2014, 18(Suppl 1): P201 (17 March 2014). 34<sup>th</sup> International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 2014.
24. **C.J. Karvellas**, R Stravitz, H Battenhouse, V Durkalski, W Lee, ML Schilsky. A multicenter retrospective cohort analysis of therapeutic hypothermia in acute liver failure. *Critical Care* 2014, 18(Suppl 1): P200 (17 March 2014). 34<sup>th</sup> International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 2014.
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26. **C.J. Karvellas**, R.T. Stravitz, H. Battenhouse, V. Durkalski, W.M. Lee, M.L. Schilsky, United States Acute Liver Failure Study Group. Hypothermia in Acute Liver Failure: A multicenter retrospective cohort analysis (It's Alright to be cool). *J Hepatol* April 2014 vol 60 Supp. 1 S173 (P319). European Association for the Study of Liver Annual Congress (ILC 2014) London, UK April 9<sup>th</sup>-13<sup>th</sup>, 2014.
27. **M.J. McPhail**, D.L. Shawcross, R.D. Abeles, G. Manakkat Vijay, V. Patel, **C.J. Karvellas**, E. Leslie, W. Bernal, E. Holmes, J.A. Wendon, S.D. Taylor-Robinson. CHARACTERISATION OF THE PLASMA METABOLIC PHENOTYPE OF ACUTE LIVER FAILURE BY 1H NMR SPECTROSCOPY. *J Hepatol* 2014 April Vol 60 Supp.1 S171 (P314). European Association for the Study of Liver Annual Congress (ILC 2014) London, UK April 9<sup>th</sup>-13<sup>th</sup>, 2014.
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- disease. *J Hepatol* 2014 April Vol 60 Supp. 1 S361 (P863). European Association for the Study of Liver Annual Congress (ILC 2014) London, UK April 9<sup>th</sup>-13<sup>th</sup>, 2014.
29. **C. J. Karvellas**, J.L. Spieser, W.M. Lee for the US ALFSG. Determining Late Predictors of Outcome for Acetaminophen-Induced Acute Liver Failure Using Classification and Regression Tree (CART) Modeling Analysis. *Gastroenterology* 2014 May Vol 146 Issue 5 Suppl. 1 S913(476). *Digestive Diseases Week*. Chicago, USA May 3<sup>rd</sup>-6<sup>th</sup>, 2014.
  30. **C.J. Karvellas**, F.S. Cardoso, M Wells, M Alghanem, F Handou, L Kwapisz, N.M. Kneteman, P.J. Marotta, B Al-Judaibi. Impact of portal vein thrombosis prior to liver transplantation: a retrospective cohort study. *Hepatology* 2014 Vol 60. No4 (Suppl.): No 522(p455a). American Association for the Study of Liver Disease Annual Meeting (Boston, USA), November 2014.
  31. **C. J. Karvellas**, F.S. Cardoso, A.L. Mason, N.M. Kneteman, G Meeberg, A.J. Montano-Loza. Clinical impact of cholestasis after liver transplantation: a retrospective cohort study. *Hepatology* 2014 Vol 60. No4 (Suppl.): No 567 (p475a). American Association for the Study of Liver Disease Annual Meeting (Boston, USA), November 2014.
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  33. D. Weil, HC Pan, E. Levesque, B. Sauneuf, E. Theocharidou, **C J. Karvellas**, R. Robert, A. Galbois, J. Fichet, R. Cavallazzi, JP Cervoni, G. Piton, T. Thevenot, G. Capellier, V. Di Martino. Prognosis of cirrhotic patients admitted in Intensive Care Unit: A Meta-analysis. *Hepatology* 2014 Vol 60. No4 (Suppl.): No 595 (p490a). American Association for the Study of Liver Disease Annual Meeting (Boston, USA), November 2014.
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  35. D Weil, V Di Martino, Eric Levesque, M McPhail, R Cavallazzi, E Theocharidou, E Cholongitas, A Galbois, HC Pan, **CJ Karvellas**, B Sauneuf, R Robert, J Fichet, G Piton, G Capellier, T Thévenot. EXTERNAL VALIDATION OF THE CLIF-SOFA IN CIRRHOTIC PATIENTS ADMITTED TO INTENSIVE CARE UNITS (ICUS): A META-ANALYSIS. *J Hepatol* 2015 vol 62. S350 (P0132). European Association for the Study of Liver Annual Congress (ILC 2015) Vienna, Austria April 2015.
  36. **CJ Karvellas**, JG Abraldes, A Kumar, for the CATTs Study Group. Speed is Life: Delay in appropriate antimicrobial therapy and endoscopic or surgical biliary decompression deleteriously impacts survival in patients with septic shock due to ascending cholangitis. *Gastroenterology*, April 2015, Vol. 148, Issue 4, Suppl 1, S-292 (poster of distinction). *Digestive Diseases Week*. Washington, USA May 3<sup>rd</sup>-6<sup>th</sup>, 2015.

37. FS Cardoso, M Gottfried, R Reddy, J Hanje, D Ganger, WM Lee, **CJ Karvellas**. Fulminant Hepatitis B Acute Liver Failure due to immunosuppressant or chemotherapy: A multicenter retrospective cohort analysis. *Hepatology*, October 2015, Vol 62, No 1, Suppl 1, No1761 (1067A). American Association for the Study of Liver Disease (AASLD) Annual Meeting. San Francisco, USA, November 12-17<sup>th</sup>, 2015.
38. **Karvellas C**, Sy E, Ronco J. Prognostic scores in acute on chronic liver failure patients admitted to ICU: A Canadian Study. *Crit Care Med*. 2015 Dec;43(12 Suppl 1):93. Society of Critical Care Medicine (SCCM) Annual Congress. Orlando, USA. February 23rd, 2016.
39. Kaur G, Leslie EM, Tillman H, Lee WM, Swanlund DP, **Karvellas CJ**. Detection of Ophthalmic Acid in Serum from Acetaminophen-induced Acute Liver Failure Patients is More Frequent in Non-survivors. *Can J Gastroenterol Hepatol*. 2016 February S1. Canadian Digestive Diseases Week. Montreal, Canada. February 27<sup>th</sup>, 2016
40. Sy E, Ronco JJ, **Karvellas C**. ASSESSMENT OF PROGNOSTIC SCORES IN ACUTE ON CHRONIC LIVER FAILURE PATIENTS ADMITTED TO CRITICAL CARE UNITS: A CANADIAN COHORT STUDY. *J Hepatol* 2016 April Volume 64, Issue 2, Supplement, S255. European Association for the Study of Liver Annual Congress (ILC 2016) Barcelona, Spain 2016.
41. **Karvellas C**, Speiser J, Tremblay M, Lee W, Rose C. Elevated FABP1 serum levels are associated with poorer survival in acetaminophen-induced acute liver failure. *Hepatology* 2016 October Volume 41 Number 1(Suppl) p28A (number 54).
42. **Karvellas C**, Speiser J, Tremblay M, Lee W, Rose C. Brain-FABP serum levels and clinical outcomes in acetaminophen-induced acute liver failure. *Crit Care Med*. 2016 Dec; 44(12 Suppl 1):220. SCCM 2017 Honolulu, USA 2017.
43. Cardoso F, Gottfried M, Tujios S, Olson J, **Karvellas CJ**. Continuous renal replacement therapy reduces serum ammonia concentrations in acute liver failure: a multicenter cohort study”, *Journal of Hepatology*, Vol. 66, Issue 1, S8. European Association for the Study of Liver Annual Congress (ILC 2017) Amsterdam, Netherlands 2017.
44. **C.J. Karvellas**, E. Garcia-Lopez, J. Fernandez, F. Saliba, E. Sy, R. Jalan, M. Pavesi, T. Gustot, G. Mezzano, J.J. Ronco, V. Arroyo and CLIF Consortium (EF CLIF). Evaluation of the CLIF-C ACLF score in critically ill cirrhotic patients in intensive care units in Europe and North America: a multicenter cohort study. *Journal of Hepatology* 2017 vol. 66 Issue 1 S137. European Association for the Study of Liver Annual Congress (ILC 2017) Amsterdam, Netherlands 2017.

#### **Invited International Scientific Presentations:**

- 2008 Current evidence for extracorporeal liver support devices. *Digestive Diseases Week*, San Diego, USA May 2008.
- 2008 Sepsis and the liver. *Critical Care Grand Rounds*. University of Pittsburg Medical Centre. Pittsburg, USA. December 16<sup>th</sup>, 2008.

- 2012 Treating the failing liver. Innovations in hepatic support. XXII Congress of the Latin American Association for the study of the liver. Lima, Peru. September 6<sup>th</sup>, 2012.
- 2012 Outcomes and complications of intracranial pressure monitoring in Acute Liver Failure: A retrospective cohort study. Liver Transplant Plenary Session One. American Association for the Study of Liver Annual Meeting Boston, USA. November 11<sup>th</sup>, 2012.
- 2013 Paucity of Palliation in Cirrhotic Patients: a Retrospective Study and Needs Assessment. Oral presentation, Advances in Health Care Delivery Research for Chronic Liver Disease Research Forum. Digestive Diseases Week 2013 (Orlando, USA), May 2013.
- 2014 Current Evidence for Extracorporeal Liver Support: Clearing the Evil Humors. Pulmonary and Critical Care Grand Rounds. The Cleveland Clinic. Cleveland USA. February 12<sup>th</sup>, 2014
- 2014 Management of the Critically Ill Cirrhotic. The Cleveland Clinic. Cleveland USA. February 12<sup>th</sup>, 2014.
- 2014 Determining late predictors of outcome for acetaminophen-induced acute liver failure using classification and regression tree (CART) modeling analysis. AASLD Plenary Session Digestive Diseases Week 2014 (Chicago, USA), May 2014.
- 2015 Hepatorenal syndrome: Is it just AKI? Critical Care Canada Forum (Toronto, Canada), October 27<sup>th</sup>, 2015.
- 2015 Liver transplantation in the critically ill. Critical Care Canada Forum (Toronto, Canada), October 28<sup>th</sup>, 2015.
- 2015 ICU care of the patient with cirrhosis. American Association for the Study of Liver Disease (AASLD) International Liver Meeting (San Francisco, USA). November 16<sup>th</sup>, 2015.
- 2016 Coagulation disorders in Acute and Acute-on-chronic liver failure. Society of Critical Care Medicine Annual Congress (Orlando, USA). February 21<sup>st</sup>, 2016.
- 2016 When to Say enough is enough: The Validity of Pre-Operative Futility. American Transplant Congress (ATC) (Boston, USA). June 11<sup>th</sup>, 2016.
- 2016 Management of the Liver Failure Patient. Critical Care Canada Forum (Toronto, Canada), November 2<sup>nd</sup>, 2016.
- 2016 Managing the Acute Liver Failure Patient. Liver Transplant Special Interest Group (SIG). American Association for the Study of Liver Disease (AASLD) International Liver Meeting (Boston, USA). November 13<sup>th</sup>, 2016.
- 2016 Elevated FABP1 serum levels are associated with poorer survival in acetaminophen-induced acute liver failure. Basic Science and Acute Liver Failure Paralell Session. American Association for the Study of Liver Disease (AASLD) International Liver Meeting (Boston, USA). November 14<sup>th</sup>, 2016.
- 2017 Disorders of hemostasis in Acute and Acute-on-chronic liver failure. Society of Critical Care Medicine Annual Congress (Honolulu, USA). January 20<sup>th</sup>, 2017.

- 2017 Research snapshot. BRAIN-FABP SERUM LEVELS AND CLINICAL OUTCOMES IN ACETAMINOPHEN-INDUCED ACUTE LIVER FAILURE. Society of Critical Care Medicine Annual Congress (Honolulu, USA). January 24th, 2017.
- 2017 AASLD Webinar: Hepatotoxicity Highlights from the Liver Meeting: Elevated Liver Fatty Acid Binding Protein Serum Levels Improve Prognostic Discrimination of King's College Criteria and the ALFSG Prognostic Index in Acetaminophen-Induced Acute Liver Failure; A Case Control Study. February 22<sup>nd</sup>, 2017.
- 2017 Oral presentation: Continuous renal replacement therapy reduces serum ammonia concentrations in acute liver failure: a multicenter cohort study”, Journal of Hepatology, Vol. 66, Issue 1, S8. European Association for the Study of Liver Annual Congress (ILC 2017) Amsterdam, Netherlands April 2017.
- 2017 ICU management of Acute on Chronic Liver Failure. **International Liver Transplant Society (ILTS)** Annual Congress May 25, 2017. Prague, Czech Republic.
- 2017 Oral abstract presentation: The impact of continuous renal replacement therapy on serum ammonia concentrations in acute liver failure: A multicenter cohort study. **International Liver Transplant Society (ILTS)** Annual Congress May 25, 2017. Prague, Czech Republic.
- 2017 Oral abstract plenary: Can we Define Futility in Critically ill Cirrhotic Patients in Intensive Care Units Using the CLIF-C ACLF Score? A European and North American Pooled Analysis. **International Liver Transplant Society (ILTS)** Annual Congress May 26, 2017. Prague, Czech Republic.

#### **Invited National Scientific Presentations:**

- 2008 Albumin dialysis and Hepatorenal syndrome. CRRT in Critical Care/Nephrology Symposium. Edmonton, Canada. November 2007.
- 2008 Sepsis and the liver. McGill University Critical Care Grand rounds Montreal, Canada. November 9<sup>th</sup>, 2008.
- 2010 Management of Hepatic Encephalopathy: Lactulose and beyond. 2010 CDDW/CASL Winter Meeting. Toronto, Canada. March 1<sup>st</sup>, 2010.
- 2010 Hepatorenal syndrome and extracorporeal liver support. AKI 2010 Symposium, Edmonton, Canada. April 2010.
- 2011 Animal Models in Acute Liver Failure. 2011 CDDW/CASL Winter Meeting Vancouver, BC, Canada. February 27<sup>th</sup>, 2011.
- 2011 Extracorporeal Liver Support in 2011. Canadian Critical Care Conference, Whistler, BC, Canada. February 23, 2011.
- 2011 The ICU Management of Acute Liver Failure. Canadian Critical Care conference. Whistler, BC, Canada February 23, 2011.

- 2011 MARS in 2011. Canadian Critical Care Forum. Toronto, ON Canada November 2011.
- 2012 Albumin-based Liver Support in 2012. Critical Care Grand Rounds: Hospital Saint Justine Montreal, Quebec, Canada. February 23<sup>rd</sup>, 2012.
- 2012 Acute Liver failure: Pathophysiology and the potential role of novel biomarkers. Research Rounds: Centre Hospitalier de L'Universitty de Montreal. Montreal, Quebec, Canada February 23<sup>rd</sup>, 2012.
- 2012 Are Liver Support devices ready for prime time? 2012 CDDW/CASL Winter Meeting. Montreal, Canada. February 24<sup>th</sup>, 2012.
- 2012 Albumin Dialysis in 2012: A Canadian Perspective. BONMOTS Multiorgan Transplant Rounds. London Health Science Centre. London Ontario. April 19<sup>th</sup>, 2012.
- 2012 MARS: A Canadian Perspective. Critical Care Grand Rounds. London Health Science Centre, London Ontario. April 20<sup>th</sup>, 2012.
- 2013 Management of Acute Liver Failure: 2013 CDDW/CASL Winter Meeting. Victoria, Canada. March 3<sup>rd</sup>, 2013.
- 2014 The challenge of the critically ill cirrhotic: Futile vs. non-futile intensive care. CDDW/CASL Winter Meeting. Toronto, Canada. February 11<sup>th</sup>, 2013.
- 2014 Acute Liver Failure: Management challenges of an orphan disease. Medicine Grand Rounds. Dalhousie University. Halifax, Canada. March 18, 2014.
- 2015 The role of transplantation in the critically ill cirrhotic: implications on resource allocation and outcomes. Canadian Critical Care Conference, Whistler, BC, Canada. February 26, 2015.
- 2015 Knowing when to hold them and to when to fold them: Prognostication and palliation in critically ill cirrhotic patients. Canadian Critical Care conference. Whistler, BC, Canada February 26, 2015.
- 2016 Acute on Chronic Liver Failure: A new name for an old problem. Combined Critical Care/Hepatology Grand Rounds (CHUM ~ Centre Hospitalier University de Montreal). February 26<sup>th</sup>, 2016.
- 2016 Drug-induced liver injury: Are there any therapies to try? 2016 CDDW/CASL Winter Meeting. Montreal, Canada. February 28<sup>th</sup>, 2016.
- 2017 Hepatorenal syndrome and Acute Kidney Injury in Cirrhosis: 2017 CDDW/CASL Winter Meeting. Banff, Canada. March 5<sup>th</sup>, 2017.
- 2017 Hepatic Failure. 11<sup>th</sup> Annual Canadian Critical Care Review Program. Toronto, Canada. June 2<sup>nd</sup>, 2017.

**Invited Local/Regional and CME Presentations.**

- 2009 The Role of ICP monitoring in Fulminant Liver Failure, Neurosurgery Rounds, University of Alberta. April 2010.
- 2009 Upper GI Bleeding in the ICU, Critical Care Academic Half-day, University of Alberta. November 4<sup>th</sup>, 2009.
- 2009 Current evidence for Extra-corporeal Liver support in Acute/Acute on Chronic Liver Failure. Pediatric Critical Care Grand Rounds, University of Alberta. December 10<sup>th</sup>, 2009.
- 2010 Acute Liver Failure. CRITER 2010 ( Critical Care in the Emergency Room), Jasper, Canada. September 13<sup>th</sup>, 2010.
- 2010 Extracorporeal Liver Support in 2010. Canadian Society of Gastroenterology Nurses and Associates National Meeting. Edmonton, Canada. September 30<sup>th</sup>, 2010.
- 2012 Prognostic markers and liver transplantation in acetaminophen poisoning. Clinical Pharmacology and Toxicology Grand Rounds. Calgary, Canada. January 19<sup>th</sup>, 2012.
- 2012 ICU management of the Acute Liver Failure Patient. Combined Gastroenterology/ Critical Care Grand Rounds. Regina General Hospital, Regina, Canada. May 7<sup>th</sup>, 2012
- 2012 MARS in Acute and Acute on Chronic Liver Failure, Nephrology Grand Rounds, Regina General Hospital, Regina, Canada. May 7<sup>th</sup>, 2012.
- 2012 ICU management of the Acute Liver Failure Patient, Critical Care Grand Rounds. Foothills Hospital (University of Calgary), Calgary, Canada. October 17<sup>th</sup>, 2012.
- 2013 Challenges in management of the critically ill cirrhotic, Gastroenterology Grand Rounds. University of Alberta. Edmonton, Canada. December 16<sup>th</sup>, 2013.
- 2014 Acute Liver Failure. CRITER 2014 (Critical Care in the Emergency Room), Edmonton, Canada. March 15<sup>th</sup>, 2014.
- 2014 Acute Liver Failure: Lessons from an orphan disease. Medical Grand Rounds. University of Alberta. June 13<sup>th</sup>, 2014.
- 2015 What's new in Critical Care Hepatology? Critical Care Grand Rounds, University of Alberta. January 20<sup>th</sup>, 2015.
- 2015 Acute on Chronic Liver Failure: A new name for an old problem. Department of Medicine Grand Rounds (Royal Alexandra Hospital). March 25<sup>th</sup>, 2015.
- 2016 Acute on Chronic Liver Failure: A new name for an old problem. Critical Care Grand Rounds. Foothills Hospital (University of Calgary), Calgary, Canada. March 23<sup>rd</sup>, 2016.