

HANNAH WUNSCH, MD MSc
Curriculum Vitae

OFFICE ADDRESS:

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PERSONAL INFORMATION

Hannah Wunsch
Birthdate: 7/29/75
Birthplace: Boston, MA, USA
Citizenship: USA, Canada

SPECIALTY BOARD QUALIFICATIONS & MEDICAL LICENSES

2014-2023	Medical License, College of Physicians & Surgeons of Ontario
2008-	Critical Care Medicine (ABA)
2008-2016	Anesthesiology (ABA)
2004-	New York State Medical License #233969

TRAINING

2007-08	Fellowship, Critical Care Medicine, Columbia University Medical Center
2004-07	Residency, Anesthesiology, Columbia University Medical Center
2003-04	Internship, Internal Medicine, Columbia University Medical Center

EDUCATION

2003	M.D.	Medicine	Washington University School of Medicine, St Louis, MO
2002	M.Sc.	Epidemiology	London School of Hygiene & Tropical Medicine, London
1997	B.A. (Magna)	Biology	Harvard University, Cambridge, MA
1993-94			Williams College, Williamstown, MA

EMPLOYMENT HISTORY

2023-	Distinguished Professor, Department of Anesthesiology, Weill Cornell Medicine, New York, NY
2019-	Professor [status], Institute of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada
2024-	Professor [status], Department of Anesthesiology and Pain Medicine and Interdepartmental Division of Critical Care Medicine, University of Toronto, Toronto, Ontario, Canada
2016-	Scientist [adjunct], ICES (Institute for Clinical Evaluative Sciences), Toronto, Ontario, Canada

2018-23 **Professor, Department of Anesthesiology and Pain Medicine and Interdepartmental Division of Critical Care Medicine**, University of Toronto, Toronto, Ontario, Canada

2018-23 **Medical Director, Cardiovascular ICU, Sunnybrook Health Sciences Centre**, Toronto, Ontario, Canada

2016-19 **Associate Professor [status], Institute of Health Policy, Management and Evaluation**, University of Toronto, Toronto, Ontario, Canada

2014-23 **Staff Physician**, Department of Critical Care Medicine, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

2014- **Senior Scientist**, Evaluative Clinical Sciences, Trauma, Emergency & Critical Care Research Program, Sunnybrook Research Institute, Toronto, Ontario, Canada

2014-18 **Associate Professor, Department of Anesthesia**, University of Toronto, Toronto, Ontario, Canada

2011-14 **Herbert Irving Assistant Professor of Epidemiology & Anesthesiology [Tenure Track]**, Columbia University, New York, NY

2010-14 **Assistant Professor of Epidemiology [Tenure Track]**, Department of Epidemiology, Mailman School of Public Health, Columbia University, New York, NY

2009-11 **Assistant Professor of Anesthesiology [Tenure Track]**, Division of Critical Care Medicine Department of Anesthesiology, Columbia University, New York, NY

2008-09 **Instructor of Anesthesiology**, Division of Critical Care Medicine Department of Anesthesiology, Columbia University, New York, NY

2002 **Research Fellow**, Intensive Care National Audit & Research Center

1999 **Nature Summer Science Writing Intern**, London, UK

1997-2000 **Freelance Medical Writer** (weekly contributor to *The Lancet*)

1997 **Teaching Fellow**, Molecular Biology, Supervisor: Professor Richard Losick, Department of Biology, Harvard University

1995-1997 **Laboratory Research Assistant**, Supervisor: Dr. Simon Powell, Department of Radiation Oncology, Massachusetts General Hospital, Harvard Medical School

RECOGNITIONS & AWARDS

2024 **Lane Anderson Award for best science writing in Canada [Shortlist]** for medical history book, *The Autumn Ghost*

2024 **Top Reviewer Award**, American Journal of Respiratory & Critical Care Medicine

2023 **Rakuten Kobo Emerging Writer Prize [Shortlist]** for medical history book, *The Autumn Ghost*

2022 **Presidential Citation**
Society of Critical Care Medicine, for contribution to the society

2020-2024 **Canada Research Chair (CRC) Tier 2**, Critical Care Organization and Outcomes

2018 **Mid-Career Investigator Award**, Critical Care Section, American Thoracic Society

2018-22 **Anesthesia Excellence in Research Award [Merit Award]** Department of Anesthesia, University of Toronto [\$120,000]

2017 **Anesthesia Merit Award [interim competition]**, Department of Anesthesia, University of Toronto [\$20,000]
Peer reviewed competition for research support from the University Department

2016 **Presidential Scholars Award**
American Society of Anesthesiology, for dedication to research in anesthesiology

2014 **Presidential Citation**
Society of Critical Care Medicine, for contribution to the society

2012 **Presidential Citation**
Society of Critical Care Medicine, for contribution to the society

2010	Best Clinical Science Paper <i>Department of Anesthesiology, Columbia University, New York, NY</i>
2009	Annual Scientific Award [abstract] <i>Society of Critical Care Medicine, Nashville, TN</i>
2008	Best Scientific Poster [clinical research] <i>Critical Care Canada Forum, Toronto, ON</i>
2007	First Prize [clinical research], Academic Evening <i>Department of Anesthesiology, Columbia University</i>
2006	Third Prize, Resident Research Competition <i>New York State Society of Anesthesiology, Post-Graduate Assembly</i>
2006	Third Prize, Resident Research Competition <i>American Society of Anesthesiologists</i>
2006	Young Investigator Award <i>American Society of Critical Care Anesthesiology</i>
2005	First Prize, Academic Evening <i>Department of Anesthesiology, Columbia University</i>
2003-08	Virginia Apgar Scholar <i>Columbia University, salary support during residency for commitment to a research career</i>
2002	Alpha Omega Alpha <i>Washington University School of Medicine</i>
2000	American College of Physicians-American Society of Internal Medicine Clerkship Award <i>Washington University School of Medicine</i>
1999	Antoinette Frances Dames Award in Cell Biology <i>Washington University School of Medicine</i>
1998	Distinguished Alumni Scholarship <i>Washington University School of Medicine, merit scholarship for four years of medical school</i>
1997	Highest Honors in Biology <i>Harvard University</i>
1997	Summa Cum Laude undergraduate thesis in Biology <i>Harvard University</i>

RESEARCH FUNDING

Grants (current)

2021-2025	US Department of Defense W81XWH-20-CPMRP-IIRA Role: PI. US\$900,000. "The Relationship Between Type of Opioid Used During Critical Illness and Transition to Chronic Pain "
2021-2026	NIH/NHLBI R01 HL151607 Role: Co-Investigator [PI: Hayley Beth Gershengorn] US\$1.25million. "Optimizing Intensive Care Unit Staffing in the United States."
2023-2025	CIHR. Catalyst Grant. Role: PI. CAN\$150,000. "A survey of Canadian critical care staffing to inform current policy and future need"
2020-2025	CIHR. Team Grant: Sepsis Research Network. Role: Co-Investigator [PI: Alison Fox-Robichaud]. US \$5million. "Canadian Sepsis Research Network: Improving Care Before, During and After Sepsis."

2021-2027 **CIHR**. Training Grant: Health Research Training Platform. Role: Co-Investigator. [PI: Piquette, Dominique]. CAD \$1,199,855. "The Life-Threatening Illness National Group (LifTING) Research Training Platform: Spanning Boundaries Between Research and Care."

Grants (completed)

2020-2024 **NIH/NHLBI R01** HL151606. Role: Advisory Board [PIs: Allan J. Walkey and Vincent Liu]. US\$2.6million. "Evaluating Routine Opioid Use During Acute Respiratory Failure."

2019-2024 **CIHR**. Project Grant. Role: Co-Investigator. [PI: Parshuram, Christopher S]. CAD \$1,923,975. HARM Evaluated: Hospital characteristics & Adverse event Rate Measurement.

2019-2023 **CIHR**. Project Grant. Role: Principal Investigator [Co-PI: Lisa Burry]. \$130,051. "Sedatives newly prescribed following intensive care unit admission among sedative-naïve elderly patients: Understanding the risk of falls and determining targets for deprescribing (SNOW-FALL)"

2021-2023 **CIHR**. Project Grant. Role: Co-Investigator. [PI: Margaret Herridge]. CAD \$932,280. "RECOVER Program: A care continuum after critical illness."

2021-2023 **CIHR**. Project Grant. Role: Co-Investigator. [PI: Kirsten Fiest] CAN\$355,725. "ACCELERATE: Partnering with ICU patients and family caregivers towards early transitions in care."

2020-2021 **CIHR**. COVID-19 May 2020 Rapid Research Funding Opportunity: Canadian COVID-19 Prospective Cohort Study (CANCOV). Role: Co-Investigator [PIs: Angela Cheung, Margaret Herridge]. \$2,112,500. "Canadian COVID-19 Prospective Cohort Study (CANCOV)."

2018-2020 **University of Toronto**. Toronto COVID-19 Action Initiative. Role: Co-Investigator [PIs: Angela Cheung, Margaret Herridge]. \$500,000. "Canadian COVID-19 Prospective Cohort Study (CANCOV)."

2017-2022 **European Society of Anesthesia**. Role: Co-Investigator. [PI: Ib Jammer]. Euros 30,000. "Vasopressor therapy following surgery: an international observational study (Squeeze)."

NIH/NIDA R01 DA042299. Role: Principal Investigator [Co-PI: Mark Neuman] US\$2.1 million. "Acute Pain Management and Long-term Opioid Use after Surgery."

NIH/NHLBI R01 HL137816. Role: Co-Investigator [PI: Colin Cooke]. US\$3.5 million. "Strategies to Enhance Pneumonia Care via Intermediate Intensive Care (STEP IN)."

2017-2021 **NIH/NHLBI R01** HL 136719. Role: Advisory Board [PI: Scott Halpern]. US\$3.2 million "Benefits of ICU admission for patients with acute respiratory failure or sepsis: A mixed-methods study across 26 hospitals."

2015-2020 **NIH/NIA**. K08 [Beeson Award]. Role: Co-Investigator. [PI: May Hua] \$862,510. "Determinants of Critical Care Intensity for Hospitalized Older Adults: the Effect of Hospital-based Palliative Care Services"

2016-2018 **CIHR**. Project Grant. Role: Principal Investigator. \$183,480 "Opioid use after critical illness."

2016-2017 **CIHR**. Project Grant. Role: Co-Investigator (PI: Barbara Haas). \$92,500. "The changing face of trauma care: a comprehensive evaluation of the impact of severe injury on elderly patients"

2015-17 **Heart & Stroke**. Operating Grant. Role: Co-Investigator (PI: Allan Garland). \$245,000. - "Changes in Work and Earnings After Heart Attack, Stroke and Cardiac Arrest"

2014-17	CIHR . Operating Grant. Role: Principal Investigator. \$189,225. "Identifying Risk Factors for and Outcomes following Rehospitalizations for Elderly Critically Ill Patients"
2014-15	PhRMA Foundation . Role: Co-Investigator (PI: Hayley Gershengorn). \$100,000. "Identification of the Optimal Antibiotic Regimen for Legionella Pneumonia".
2010-15	NIH/NIA 1 K08 AG038477-04. Role: Principal Investigator. \$628,425. "Use of intensive care for elderly patients undergoing high-risk surgical procedures".
2013-15	University of Toronto Integrating Challenge Grant . Role: Co-Investigator (PI: Robert Fowler) \$187,900. "Shining a Light on End-of-Life Care in Canada: Investigating Barriers, Testing Interventions, and Disseminating Integrated Solutions for Patients, Families and Healthcare Professionals".
2011-14	Irving Scholars Program, Columbia University . Role: Principal Investigator. \$180,000. "Association between treatment intensity at the end of life and outcomes for intensive care patients".
2012-13	CIHR . Role: Co-Investigator (PI: Robert Fowler). \$99,208. "A National Comparison of Intensity of End-of-Life Care in Canada: Defining Changing Patterns, Risk Factors and Targets for Intervention."
2011-13	NIH/NIDA 1 R21 DA029670. Role: Co-Investigator (PI: Guohua Li). \$418,356. "Effectiveness of mandatory prescription drug monitoring".
2010-11	KL2 (Columbia University). Role: Principal Investigator. \$125,000. Evaluation of the use of head CTs in critically ill patients [terminated 30 Sept 2010 with start of K08]
2008-09	Foundation for Anesthesia Education and Research (FAER) Research Fellowship Grant. Role: Principal Investigator. \$50,000. Cohort study examining long-term (3 year) mortality for intensive care patients in the United States.

ACTIVITIES - EXTERNAL

2024-	Panel Member , Caring for Older Adults in the ICU, Guidelines Taskforce, Society of Critical Care Medicine
2025-	DSMB member , COMPASS-PC study (Comparing Optimized Models of Primary and Specialist Services for Palliative Care) [PCORI]
2024-	DSMB member , PLTS-IDSMC study
2023-	Scientific Advisory Board (SAB) member , Department of Anesthesia, Critical Care and Pain Medicine, Beth Israel Deaconess Medical Center
2023	Committee Member , Enhancing Recovery from Sepsis-induced Organ Dysfunction, Banbury Center, Cold Spring Harbor Laboratory [Meeting held: May 2023]
2022	NIH/NIDCR Grant Review Panel [ad hoc]
2021	Member , Working group on medical staffing models for critical care during future waves of the pandemic, on behalf of the Ontario Command Table, Ontario, Canada
2019-20	CIHR Project Grant Review Panel (Health Services Research Section)
2018-20	Committee Member , Nominating Committee, American Thoracic Society
2018-20	Committee Member , Research Committee, Society of Critical Care Anesthesiologists
2018-19	Co-Chair , AUA Clinical Trials Initiative, Association of University Anesthesiologists
2018-19	Committee Member , Research Section, American Society of Anesthesiology
2018-19	Committee Member , Grant Review Panel, Foundation for Anesthesia Education and Research (FAER)
2017	CIHR Project Grants Review Panel , Phase 1 and 2
2017-19	Committee Member , Discovery Committee, Society of Critical Care Medicine
2017-19	Committee Chair , Critical Care Planning Committee, American Thoracic Society

2015-16	Committee Member , THRIVE taskforce (Chair of sub-section on Research); Society of Critical Care Medicine
2015-16	Program Planning Committee , Behavioral Sciences Section, American Thoracic Society
2014-16	Committee Member , Planning Committee, Critical Care, American Thoracic Society
2015-16	Chair , Scientific Review Committee, Society of Critical Care Medicine
2014-15	Committee Member , Family Centered Care Guidelines Committee, Society of Critical Care Medicine
2014	Committee Member , CIHR Foundation Grant Reviews, Phase 1
2013, 2014, 2019	FAER Grant Review Panel (Health Services Research study section), Foundation for Anesthesia Education and Research
2013	Committee Member (SCCM Representative), Critical Care Medicine "Choosing Wisely" Taskforce, ABIM
2013 (June)	Member , Urinary Catheter Appropriateness Panel, Veterans Affairs National Center for Patient Safety, Patient Safety Center of Inquiry, Ann Arbor, Michigan
2013-2017	Taskforce Member , ATS Clinical Practice Guidelines on Mechanical Ventilation in ARDS, American Thoracic Society
2012, 2016	Official representative for Society of Critical Care Medicine , FDA public panel on research on sedation
2011-13	Scientific Review Committee Member , Society of Critical Care Medicine
2010-14	Committee Member , Canadian Institute of Health Research, Grant Review Panel (Health Services Research section)
2010-	Research member , InFACT global H1N1 collaboration
2010, 2011	Committee Member , Abstract Selection Committee, Critical Care Track, American Society of Anesthesiology
2010-14	Program Planning Committee , Critical Care Section, American Thoracic Society
2010-12	Steering Committee Member , Long-term outcomes Taskforce, Society of Critical Care Medicine
2009-14	Steering Committee Member , Critical Care Leadership Network, Greater New York Hospital Association

EDITORIAL RESPONSIBILITIES

2020-	Editorial Board , <i>Critical Care</i>
2015-	Associate Editorial Board , <i>Anesthesiology</i>
2015-	Associate Editorial Board , <i>Intensive Care Medicine</i>
2021-2023	Guest Editor , <i>Critical Care Clinics</i> . Issue on History of Critical Care Medicine
2015-20	Associate Editor (Critical Care), <i>American Journal of Respiratory and Critical Care Medicine</i>
2014	Guest Editor , <i>Current Opinion in Critical Care</i> , Section on ICU Ethics and Organization
2013-15	Board of Reviewers , <i>Intensive Care Medicine</i>
2013	Guest Editor , <i>Current Opinion in Critical Care</i> , Section on ICU Outcomes
2013-14	Associate Editor , <i>BMC Anesthesiology</i> , Section on Critical Care

ACTIVITIES - INTERNAL

2023-	Vice Chair for Research , Department of Anesthesiology, Weill Cornell Medicine
2023-	Executive Committee Member , Department of Anesthesiology, Weill Cornell Medicine
2018-23	Clinical Utilization Committee Member , Sunnybrook Hospital

2018-	Co-Director, Acute and Intensive Care Outcomes Research Network (AICORN) , Department of Critical Care Medicine, Sunnybrook Hospital
2016-20	Coordinator, Visiting Professor Program , Interdepartmental Division of Critical Care Medicine, University of Toronto
2016-23	Associate Director of Research , Interdepartmental Division of Critical Care Medicine, University of Toronto
2015-17	Coordinator, Faculty Research in Progress Meeting , Department of Critical Care Medicine, Sunnybrook Hospital
2013-14	Faculty Representative , Faculty Council of the Faculty of Medicine, Columbia University
2010-14	Admissions Committee Member , Master's Program, Department of Epidemiology, Columbia University
2010-14	Admissions Committee Member , Master's Program, Department of Epidemiology, Columbia University
2008-14	Committee Member , Residency Admissions Committee Department of Anesthesiology, Columbia University
2006-07	Resident Representative , Resident Education Committee Department of Anesthesiology, Columbia University

TEACHING AND EDUCATION

2024-	Research Mentor , NIH/NHLBI, T32 Training Grant [Multidisciplinary Approach Training in Respiratory Research], 2T32HL134629-06A1, Weill Cornell Medicine [PIs: Fernando Martinez and Augustine Choi]
2010-	External Advisory Board , NIH/NHLBI, T32 Training Grant [Training in Critical Care Health Policy Research], 5T32HL098054-14, University of Pennsylvania [PI: Scott Halpern]
2021	Preceptor , HAD5309H – Observational Studies: Theory, Design, and Methods, Institute of Health Policy, Management and Evaluation, University of Toronto
2017-2019	Preceptor , Health Services Research Course, Institute of Health Policy, Management and Evaluation, University of Toronto
2016-2023	Organizer , Nuts and Bolts of Research Seminars, Interdepartmental Division of Critical Care Medicine, University of Toronto
2010-14	Co-Director , Sub-Internship in Critical Care Medicine, 4 th year medical student elective, College of Physicians and Surgeons, Columbia University
2012, 2013	Faculty , Methods in Epidemiologic, Clinical and Operations Research (MECOR) [Turkey], American Thoracic Society
2010-14	Director , Fellows Journal Club, Critical Care Medicine, Department of Anesthesiology, Columbia University
2009-13	Co-Instructor of Clinical Epidemiology course [HSC 304], Mailman School of Public Health, Columbia University
2012-13	Director , Fellows Research Seminar Series, Critical Care Medicine, Department of Anesthesiology, Columbia University

MENTORSHIP

Grace Tang. Summer 2025. Medical Student, Weill Cornell Medical School

Nicole Thomasian. 2024-, Anesthesiology resident, Weill Cornell Department of Anesthesiology

Olivia Henry. 2023-, Anesthesiology resident, Weill Cornell Dept of Anesthesiology

Rebecca Piland. 2023-24, Anesthesia Critical Care Fellow, Weill Cornell Dept of Anesthesiology

Bijan Teja. 2019-, PhD thesis primary supervisor, IHPME, University of Toronto

Lisa Burry. 2019-23, PhD thesis co-primary supervisor, Institute of Medical Science, University of Toronto

Federico Angriman, 2019-23, PhD thesis committee member, IHPME, University of Toronto

Qi Guan. 2018-23, PhD thesis committee member, IHPME, University of Toronto

Bruno Feyrerro. 2018-23, PhD thesis committee member, IHPME, University of Toronto

Michael Tylee. 2017-2020, PhD thesis committee member, IHPME, University of Toronto

Naheed Jivraj. 2017-19, Master's thesis primary supervisor, IHPME, University of Toronto

Lavarnan Sivanathan. 2016-19, Master's thesis committee member, IHPME, University of Toronto

Daniel Lane. 2016-18, PhD thesis committee member, IMS, University of Toronto

Anjela Jerath, MD. 2015-18, Master's thesis committee member, IHPME, University of Toronto
Current Position: Assistant Professor of Anesthesia, University of Toronto.

Han Ting Wang. 2016-17. Research Fellow, Sunnybrook Research Institute, Toronto

Laveena Munshi, MD, 2014-2016 Master's Degree Committee Member.
Current Position: Mount Sinai & University Health Network (Clinical Associate) Clinician
Scientist Training Program

Elizabeth Freiheit. PhD, 2014-15 Committee Member. Supervisee Institution: The University of Calgary. "Frailty, Cognition, and Depression in Older Subjects with Coronary Artery Disease."

Andrea Miltiades, MD, 2014-15 Apgar Scholar (Anesthesia Resident). "Benchmarking reintubations in the ICU" [abstract presented as oral presentation at the American Society of Anesthesiology meeting in October, 2014]

Meghan Prin, MD. 2013-2015. Anesthesia Resident, Department of Anesthesiology, Columbia University, New York. "Epidemiology of high dependency units in the United Kingdom" (published in *Intensive Care Medicine*).

Emily Vail, MD, 2013-17 Apgar Scholar (Anesthesia Resident). "Vasopressor use in Septic Shock in the US" [JAMA publication]

Jocelyn Lau, 2013-2014. Supervision of Master's thesis for Master's in Public Health, Department of Epidemiology, Mailman School of Public Health, Columbia University.

Shaila Khan, MD, MPH, Summer 2012. MPH candidate, Mailman School of Public Health, practicum. "Utility of Head CTs in a general medical-surgical ICU population" [submitted to *J Crit Care*]. Winner of best clinical abstract, Intensive Care Society, London, UK, December 2012

Rocco Adante, March 2011. Fourth year medical student, Columbia University, one month research elective.

Nicole Robinson, February 2011. Fourth year medical student, Columbia University, one month research elective.

Rebecca Bauer, MD, 2011. Apgar Scholar (Research Fellowship).

May Hua, MD, 2011-present. Apgar Scholar (Research Fellowship). FAER Health Services Grant Recipient [Co-mentor] NIH Beeson Scholar [Co-mentor]

Adam Evans, MD, 2010-2011. Anesthesia Critical Care Medicine Fellow.

Julia Sobol, MD, MPH, 2009-15. Apgar Scholar (Research Fellowship).

Hayley Gershengorn, MD. 2009-10. Pulmonary & Critical Care Fellow.

PUBLICATIONS

Original Peer-Reviewed Papers

1. Gershengorn HB, Anesi GL, Liu VX, Costa DK, Dress EM, Dzierba AL, Fowler R, Kramer AA, Lizano D, Scales DC, Garland A, **Wunsch H**. Association of ICU Patient-to-Clinician Ratios with Mortality Across Two US Health Systems. ***Annals of the American Thoracic Society***. 2025 May 9(ja).
2. Iwashyna TJ, Viglianti EM, Cano J, Seelye S, Bosch NA, Burry LD, Teja B, Juurlink DN, Stelfox HT, Lu D, Hill AD, **Wunsch H**. Initial Opioid Exposure in the ICU and 1-Year Opioid-Related Outcomes in Patients Who Are Mechanically Ventilated. ***Chest Critical Care***. 2025 Mar 1;3(1):100124.
3. Henry O, Mack P, **Wunsch H**. Review of the anaesthetic management of patients with post-polio syndrome. ***British Journal of Anaesthesia***. 2025 Mar 20.
4. Khan F, Tritschler T, Marx CE, Lanting V, Rochweg B, Tran A, Fernando SM, Lorenzetti DL, **Wunsch H**, Holodinsky J, Fiest K. Predictors of recurrent venous thromboembolism and bleeding in patients with cancer: a meta-analysis. ***European Heart Journal***. 2025 Jun 22:ehaf453.
5. Garland A, Costa D, **Wunsch H**, Dzierba AL, Lizano D, Gershengorn H. Interprofessional team staffing in US intensive care units. ***Annals of the American Thoracic Society***. 2025 Mar;22(3):416-21.
6. Nasa P, Bos LD, Estenssoro E, van Haren FM, Neto AS, Rocco PR, Slutsky AS, Schultz MJ, Aryal D, Barbas CS, Battaglini D, for the **DIOS Investigators**. Defining and subphenotyping ARDS: insights from an international Delphi expert panel. ***The Lancet Respiratory Medicine***. 2025 Jan 1.

7. **Wunsch H**, Bosch NA, Law AC, Vail EA, Hua M, Shen BH, Lindenauer PK, Juurlink DN, Walkey AJ, Gershengorn HB. Evaluation of Etomidate Use and Association with Mortality Compared with Ketamine Among Critically Ill Patients. ***American Journal of Respiratory and Critical Care Medicine***. 2024 Aug 22(ja).
8. Myers LC, Bosch NA, Soltesz L, Daly KA, Campbell CI, Schwager E, Salvati E, Stevens JP, **Wunsch H**, Rucci JM, Jafarzadeh SR. Opioid Administration Practice Patterns in Patients With Acute Respiratory Failure Who Undergo Invasive Mechanical Ventilation. ***Critical Care Explorations***. 2024 Jul 1;6(7):e1123.
9. Gershengorn HB, Costa DK, Garland A, Lizano D, Wunsch H. Interprofessional Staffing Pattern Clusters in US ICUs. ***Critical care explorations***. 2024 Aug 1;6(8):e1138.
10. Prescott HC, Harrison DA, Rowan KM, Shankar-Hari M, **Wunsch H**. Temporal trends in mortality of critically ill patients with sepsis in the United Kingdom, 1988–2019. ***American Journal of Respiratory and Critical Care Medicine***. 2024 Mar 1;209(5):507-16
11. Billings IV FT, McIlroy DR, Shotwell MS, Lopez MG, Vaughn MT, Morse JL, Hennessey CJ, Wanderer JP, Semler MW, Rice TW, **Wunsch H**. Determinants and practice variability of oxygen administration during surgery in the US, a retrospective cohort study. ***Anesthesiology***. 2024 May 17:10-97.
12. Burry LD, Bell CM, Hill A, Pinto R, Scales DC, Bronskill SE, Rose L, Williamson D, Fowler R, **Wunsch H**. Trends in Sedative Prescription Among Older Adults after Critical Illness: A Population-Based Cohort Study. ***American Journal of Respiratory and Critical Care Medicine***. 2024 Jun 12(ja).
13. Gershengorn HB, Garland A, Costa DK, Dzierba AL, Fowler R, Kramer AA, Liu VX, Lizano D, Scales DC, **Wunsch H**. ICU Staffing in the United States. ***CHEST***. 2024 May 22.
14. Myers LC, Soltesz L, Bosch N, Daly KA, Devis Y, Rucci J, Stevens J, **Wunsch H**, Jafarzadeh SR, Campbell CI, Liu VX. Intravenous Opioid Administration During Mechanical Ventilation and Use After Hospital Discharge. ***JAMA Network Open***. 2024 Jun 3;7(6):e2417292-.
15. Ferraris A, Szmulewicz AG, Burry L, Phipps A, **Wunsch H**, Scales DC, Angriman F. New antipsychotic prescription and recurrent infections among adult sepsis survivors: A population-based cohort study. ***Pharmacoepidemiology and Drug Safety***. 2024 Feb;33(2):e5747.
16. Teja B, Berube M, Pereira TV, Law AC, Schanock C, Pang B, **Wunsch H**, Walkey AJ, Bosch NA. Effectiveness of fludrocortisone plus hydrocortisone versus hydrocortisone alone in septic shock: a systematic review and network meta-analysis of randomized controlled trials. ***American Journal of Respiratory and Critical Care Medicine***. 2024 May 15;209(10):1219-28.
17. Teja B, Bosch NA, Diep C, Pereira TV, Mauricio P, Sklar MC, Sankar A, Wijeyesundera HC, Saskin R, Walkey A, Wijeyesundera DN, **Wunsch H**. Complication rates of central venous catheters: a systematic review and meta-analysis. ***JAMA Internal Medicine***. 2024 Mar 4

18. Ferraris A, Szmulewicz AG, Burry L, Phipps A, **Wunsch H**, Scales DC, Angriman F. New antipsychotic prescription and recurrent infections among adult sepsis survivors: A population-based cohort study. **Pharmacoepidemiology and Drug Safety**. 2023 Dec 21
19. Jarzebowski ML, Hill AD, Burry L, Bosch NA, Viglianti EM, Teja B, **Wunsch H**. Patterns of opioid prescribing in mechanically ventilated patients with septic shock. **British Journal of Anaesthesia**. 2023 Dec 1;131(6):e197-9
20. Angriman F, Ferreyro BL, Harhay MO, **Wunsch H**, Rosella LC, Scales DC. Accounting for Competing Events When Evaluating Long-Term Outcomes in Survivors of Critical Illness. **American Journal of Respiratory and Critical Care Medicine**. 2023 Dec 1;208(11):1158-65
21. Bosch NA, Myers LC, Jafarzadeh SR, **Wunsch H**, Stevens JP, Liu VX, Walkey AJ. Temporal Trends in Use of Opioids for Patients with Acute Respiratory Failure following “Analgesia-First” Sedation Guidelines. **Annals of the American Thoracic Society**. 2023 Oct 17(ja)
22. Jivraj NK, Hill AD, Shieh MS, Hua M, Gershengorn HB, Ferrando-Vivas P, Harrison D, Rowan K, Lindenauer PK, **Wunsch H**. Use of Mechanical Ventilation Across 3 Countries. **JAMA Internal Medicine**. 2023 Jun 26
23. Vail EA, Bosch NA, Law AC, Gershengorn HB, **Wunsch H**, Walkey AJ. Adoption of a Novel Vasopressor Agent in Critically Ill Adults. **Annals of the American Thoracic Society**. 2023 Nov;20(11):1662-7.
24. Angriman F, Rosella LC, Lawler PR, Ko DT, Martin CM, **Wunsch H**, Scales DC. Risk Factors for Major Cardiovascular Events in Adult Sepsis Survivors: A Population-Based Cohort Study. **Critical Care Medicine**. 2023 Mar 18;51(4):471-83.
25. Yarnell CJ, Angriman F, Ferreyro BL, Liu K, De Grooth HJ, Burry L, Munshi L, Mehta S, Celi L, Elbers P, Thorat P, Brochard L, **Wunsch H**, Fowler RA, Sung L, Tomlinson G. Oxygenation thresholds for invasive ventilation in hypoxemic respiratory failure: a target trial emulation in two cohorts. **Critical Care**. 2023 Dec;27(1):1-3.
26. Gandotra S, **Wunsch H**, Bosch NA, Walkey AJ, Teja B. Reducing Central Venous Catheter Use through Adoption of Guidelines for Peripheral Catheter-based Vasopressor Delivery. **Annals of the American Thoracic Society**. 2023 Aug;20(8):1219-23.
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Editorials, Letters, and Reviews

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INVITED LECTURES

(bold denotes speaker at national or international meeting)

- 05/25 *From Polio to COVID-19: Lessons in ventilation from the past*
Brian Kavanagh Memorial Lecture, College of Anesthesiologists of Ireland Annual Meeting, Dublin, Ireland
- 05/25 *From Polio to COVID-19: Lessons in ventilation from the past*
 Grand Rounds, Department of Medicine, Rutgers University, NJ
- 02/25 *ICU Staffing Patterns: Outcomes for patients and for learners*
 Ontario Critical Care Practice Rounds (OC3PR), Ontario, Canada
- 02/25 *Etomidate vs Ketamine in Critical Ill Patients*
 Research Rounds, Division of Pulmonary, Critical Care & Sleep Medicine, University of Maryland, Baltimore, MD
- 02/25 *From Polio to COVID-19: Lessons in ventilation from the past*
 Grand Rounds, Department of Anesthesiology, Stanford University, Palo Alto, CA
- 02/25 *From Polio to COVID-19: Lessons in ventilation from the past*

Grand Rounds, Department of Medicine, NYU, New York NY

- 12/24 *Anesthesiology: The Articles You Need to Know*
Postgraduate Assembly in Anesthesiology (PGA), New York, NY
- 11/24 *Polio, Pandemics and the Birth of Intensive Care*
4th Robert M. Kacmarek Scientific Memorial Lecture, American Association for Respiratory Care, Orlando, FL
- 11/24 *Evaluation of Etomidate; Rethinking Physician Staffing*
Critical Care Canada Forum, Toronto, Canada
- 11/24 *Is “Continuity of Care” always good for ICU patients?*
Fellows Day, Critical Care Canada Forum, Toronto, Canada
- 11/24 *The Autumn Ghost: Lessons from our past* [virtual]
Keynote, 8th Annual Resident Education Day, Department of Anesthesiology, University of Toronto, Canada
- 10/24 *The First Marriage of Humans and Machines; Etomidate: what would you want?*
American Society of Anesthesiologists Annual meeting, Philadelphia, PA
- 10/24 *From Polio to COVID-19: Lessons in ventilation from the Past*
Uniformed Services Society of Anesthesiologists, Philadelphia, PA
- 10/24 *Humans and Machines: finding humanity in modern medicine*
The American Association of Medicine and the Person, Annual Meeting, Montreal, Canada
- 05/24 *From Polio to COVID-19: Lessons in ventilation from the Past*
Department of Anesthesiology, Wake Forest, Winston-Salem, NC
- 05/24 *From Polio to COVID-19: Lessons in ventilation from the Past*
Keynote address, American Thoracic Society, San Diego, CA
- 05/24 *Nuts and Bolts of Large Database Analysis*
International Anesthesia Research Society (IARS), Seattle, WA
- 02/24 *The Autumn Ghost: How the battle against a polio epidemic revolutionized modern medical care*
Department of History, William & Mary, Williamsburg, VA
- 02/24 *From Polio to COVID-19: Lessons from the Past*
Grand Rounds, Department of Anesthesiology, UCSF, San Francisco, CA
- 02/24 *From Polio to COVID-19: Lessons from the Past*
Grand Rounds, Department of Anesthesiology, UCLA, Los Angeles, CA
- 01/24 *From Polio to COVID-19: Lessons from the Past*
Grand Rounds, Shirley Ryan AbilityLab, Northwestern University, Chicago, IL

- 01/24 *From Polio to COVID-19: Lessons from the Past*
Grand Rounds, Critical Care Medicine Department, National Institutes of Health [virtual]
- 01/24 *From Polio to COVID-19: Lessons from the Past*
Grand Rounds, Department of Medicine, University of Massachusetts, Worcester, MA [virtual]
- 12/23 *The Autumn Ghost: From a Polio Epidemic to COVID-19*
Hacettepe University Lecture, Ankara Turkey [virtual]
- 11/23 *Origins of Mechanical Ventilation*
AC Bryan Symposium, Critical Care Canada Forum, Toronto, Canada
- 11/23 *Creativity and Innovation in Medicine: A Lesson from the Past*
Grand Rounds, Department of Medicine, University of Washington, WA [virtual]
- 11/23 *Creativity and Innovation in Medicine: A Lesson from the Past*
Grand Rounds, Department of Critical Care Medicine, University of Pittsburgh, PA
- 10/23 *From Polio to COVID-19: Lessons from the Past*
Grand Rounds, Department of Medicine, OHSU, Portland, OR [virtual]
- 10/23 *Creativity and Innovation in Medicine: A Lesson from the Past*
Keynote Address, University of Michigan Department of Anesthesiology Research Retreat, Ann Arbor, MI
- 09/23 *How Epidemics Have Shaped Critical Care*
Plenary Lecture, AOCA Annual Convention, St Petersburg, FL
- 08/23 *The Legacy of Polio*
Turkish Society of Intensive Care, Istanbul, Turkey [virtual]
- 08/23 *From Polio to COVID-19: Learning from the Past*
Grand Rounds, Department of Anesthesiology, Boston Children's Hospital, Boston, MA
- 06/23 *From Polio to COVID-19: Lessons from the Past*
ICES Rounds, Toronto, ON, Canada
- 06/23 *From Polio to COVID-19: An Origin Story*
Grand Rounds, Department of Anesthesiology and Critical Care Medicine, University of Gothenburg, Sweden
- 06/23 *The Autumn Ghost: How the Battle Against a Polio Epidemic Revolutionized Modern Medical Care*
Polio Denmark, Copenhagen, Denmark
- 05/23 *From Polio to COVID-19: An Origin Story*
Grand Rounds, Albert Einstein Department of Medicine
- 05/23 *From Polio to COVID-19: An Origin Story*

Grand Rounds, Department of Anesthesiology, Beth Israel Deaconess Medical Center, Boston, MA

- 05/23 *The Autumn Ghost: How the Battle Against a Polio Epidemic Revolutionized Modern Medical Care*
American Philosophical Society, Philadelphia, PA
- 05/23 *From Polio to COVID-19: Learning from Epidemics*
PAIR Center Research Seminar, University of Pennsylvania, Philadelphia, PA
- 04/23 *From Polio to COVID-19: Lessons from the Past*
Symposium, International Anesthesiology Research Society (IARS) Annual Meeting, Denver, CO
- 03/23 *Vasopressors: Continuing Controversies/ How Many ICU Doctors Do We Need?/ From Polio to COVID-19/ Does Choice of Opioid Matter?*
International Society of Intensive Care and Emergency Medicine, Brussels, Belgium
- 01/23 *From Polio to COVID-19: How epidemics shaped critical care.*
Plenary Lecture, Society of Critical Care Medicine, San Francisco, CA
- 12/22 *Polio and Critical Care: An Origin Story*
Allen I. Hyman, MD Lecture in Critical Care Medicine, Columbia University Department of Anesthesiology
- 09/22 *Everything you don't know about vasopressors*
Weill Cornell Medical School, Department of Anesthesiology Grand Rounds
- 05/22 *Scratching the surface of treatment for shock*
Department of Anaesthesia, Critical Care and Pain Medicine, Acute Care Edinburgh Lecture
- 02/22 *The Polio Epidemic of 1952: How polio changed modern medicine*
University College London, Department of Anesthesiology Research Rounds
- 01/22 *Scratching the surface of treatment for shock*
University College London, Division of Medicine Seminar Series
- 10/21 *Everything you don't know about using vasopressors*
University of California Los Angeles, Department of Anesthesia, Patricia Kapur Grand Rounds
- 10/21 *Everything you don't know about using vasopressors*
Kansas University Medical Center, Department of Anesthesiology Grand Rounds
- 5/21 *Round-table discussion on future of critical care*
European Society of Intensive Care Medicine, Annual Meeting [virtual]
- 5/21 *Grant Writing: What else do I need to know?*
American Thoracic Society, Annual Meeting [virtual]

- 12/20 *Opioid prescribing in the ICU: are we harming patients long-term?*
European Society of Intensive Care Medicine, Annual Meeting [virtual]
- 10/20 *COVID-19: Comparison of different health care systems response –what we can learn from each other*
Critical Care Canada Forum, Annual Meeting [virtual]
- 2/20 Does Postoperative Critical Care Improve Outcomes for Patients following Major Surgery? (Pro/Con debate)
Society of Critical Care Medicine Annual Meeting, Orlando, FL
- 12/19 *When and how to Squeeze in vasoplegic shock (roundtable)*
UK Intensive Care Society Meeting, Birmingham, UK
- 12/19 *Long-term outcomes after critical illness*
UK Intensive Care Society Meeting, Birmingham, UK
- 11/19 *Should Intensivists worry about prescribing opioids in the ICU?*
Critical Care Canada Forum, Toronto, Canada
- 11/19 *Why MAP>65 shouldn't be a target for all*
Fellows Day, Critical Care Canada Forum, Toronto, Canada
- 9/19 *Vasopressors in Shock*
John Hedley-Whyte Lecture, Department of Anesthesia, Beth Israel Deaconess Medical Center, Boston, MA
- 5/19 *Observational Research: Leveraging Natural Experiments*
Annual Shields Day Lecture, Department of Anesthesia, University of Toronto, Toronto, Canada
- 5/19 *Triaging surgical patients for the ICU*
Grand Rounds, Department of Anesthesiology, University of Michigan, Ann Arbor, MI, USA
- 4/19 *How bed availability drives care; Extubation in ICU; How we might optimize vasopressor use in septic shock*
16th Annual Critical Care Symposium, Manchester, UK
- 4/19 *Optimizing vasopressors in septic shock*
Critical Care Research Seminar, Department of Anesthesia, Washington University School of Medicine, St Louis, MO, USA
- 4/19 *How ICU bed numbers impact care*
Grand Rounds, Department of Anesthesia, Washington University School of Medicine, St Louis, MO, USA
- 3/19 *Caring for Frail Patients after High Risk surgery; How Many Doctors? How Many Nurses?; How the ICU will be organized; Is Critical Care Contributing to the Opioid Epidemic?*

- International Society of Intensive Care and Emergency Medicine, Brussels, Belgium**
- 2/19 *Is my ICU the right size?*
Society of Critical Care Medicine Annual Meeting, San Diego, CA
- 1/19 *ICU Staffing Patterns*
Research Seminar, Division of Pulmonary and Critical Care Medicine, Boston University, Boston, MA
- 1/19 *How ICU beds impact care*
Grand Rounds, Tufts Department of Anesthesiology, Boston, MA
- 10/18 *External Validation of Severity of Illness Models; Risk Assessment, the Basics; Postoperative standard care vs. postoperative ICU care: Not one size fits all*
European Society of Intensive Care Medicine, Annual Meeting, Paris, France
- 10/18 *Defining the Hypothesis; Which Control Group? Randomization Strategies and Alternatives*
Pre-Congress Research Techniques Course, European Society of Intensive Care Medicine Annual Meeting, Paris, France
- 9/18 *How ICU bed numbers impact care [Martin Holmdahl Lecture]*
Swedish Intensive Care Society, Linköping, Sweden
- 9/18 *How ICU bed numbers impact care*
Department of Anesthesia and Intensive care, Uppsala University, Uppsala, Sweden
- 9/18 *Sepsis and Recovery in the Elderly*
World Sepsis Congress [online]
- 5/18 *How ICU bed numbers impact care*
Research Day, Department of Critical Care Medicine, University of Calgary, Calgary, Alberta
- 4/18 *Postoperative acute care of frail and high risk older patients; Validation of Medicare data as applied to intensive care and mechanical ventilation*
International Anesthesia Research Society, Chicago, IL
- 4/18 *Extubating patients outside of the operating room*
Grand Rounds, Department of Anesthesiology, Columbia University, New York, NY
- 3/18 *Is it different in the US? Vasoactive Agents in Septic Shock; Do we give too much opioid?; When extubation is safe; How to limit the risk of rehospitalization*
International Society of Intensive Care and Emergency Medicine, Brussels, Belgium
- 3/18 *ICU Staffing Models*
Critical Care Medicine Rounds, Beth Israel Deaconess Medical Center, Boston, MA
- 3/18 *How ICU bed availability impacts care*

- Medicine Grand Rounds, Beth Israel Deaconess Medical Center, Boston, MA
- 1/18 *ICU staffing models*
Critical Care Research Seminar, Cedar Sinai, Los Angeles, CA
- 1/18 *Triaging surgical patients for the ICU*
Grand Rounds, Cedar Sinai Department of Anesthesiology, Los Angeles, CA
- 10/17 *ICU bed availability: Impact on Care*
Medicine Grand Rounds, Mount Sinai Hospital, Toronto, Canada
- 10/17 *Getting it wrong with large datasets*
Critical Care Canada Forum, Toronto, Canada
- 10/17 *Critical Care: Learning from Natural Experiments*
Critical Care Canada Forum Fellows Day, Toronto, Canada
- 9/17 *Understanding who will benefit from intensive care* [plenary lecture]
European Society of Intensive Care Medicine Annual Meeting, Vienna, Austria
- 9/17 *Perioperative ICU admission - risk stratification*
European Society of Intensive Care Medicine, Pre-conference session, Vienna Austria
- 6/17 *ICU Staffing Models*
Grand Rounds, Division of Pulmonary and Critical Care Medicine, Department of Medicine, University of Pennsylvania, Philadelphia, PA
- 5/17 *Association between norepinephrine shortage and mortality among patients with septic shock*
Joint NEJM/JAMA Session, American Thoracic Society Annual Meeting, Washington DC
- 4/17 *Extubation of patients outside of the operating room*
International Anesthesia Research Society (IARS) annual meeting, Washington DC
- 4/17 *Understanding ICU strain* [plenary lecture]
Singapore-ANZICS Intensive Care Forum, Singapore
- 4/17 *Pros and Cons of Intermediate Care Beds; The Impact of Critical Illness on Long-Term Outcomes*
Singapore-ANZICS Intensive Care Forum, Singapore
- 3/17 *A higher mortality rate can be a sign of quality; epidemiology of vasopressor use in the United States; How many doctors do we need? Who will be readmitted?*
International Society of Intensive Care and Emergency Medicine, Brussels, Belgium
- 3/17 *Association between norepinephrine shortage and mortality among patients with septic shock*
Plenary presentation, International Society of Intensive Care and Emergency Medicine, Brussels, Belgium

- 2/17 *What is PICS from the public-health point of view?*
Leopoldina Institute Symposium on Critical Care, Berlin, German
- 1/17 *What happens after the ICU, particularly for the chronically critically ill?*
Society of Critical Care Medicine, Annual Meeting, Honolulu, Hawaii
- 12/16 *ICU Staffing Models*
Critical Care Grand Rounds, Institute of Critical Care Medicine, Mt Sinai Hospital, New York, NY
- 12/16 *Triaging surgical patients for the ICU*
Anesthesiology Grand Rounds, Department of Anesthesiology, Mt Sinai Hospital, New York, NY
- 10/16 *Elderly in the ICU: Demographics, Transitions and Outcomes*
Critical Care Canada Forum, Annual Meeting, Toronto, Canada
- 10/16 *Practice in 2026: staffing and procedures*
Fellows Day, Critical Care Canada Forum, Toronto, Canada
- 10/16 *FAER panel: A how to guide for Anesthesiologists in the brave new world of big data; Presidential scholars address*
American Society of Anesthesiologists, Annual Meeting, Chicago, IL
- 10/16 *Pain, Stress, Delirium: How to avoid the vicious circle*
European Society of Critical Care Medicine, Annual Meeting, Milan, Italy
- 10/16 *Defining the Hypothesis; Randomization strategies and alternatives*
European Society of Critical Care Medicine Post-graduate Course, Milan Italy
- 10/16 *ICU Beds: Do Bed Numbers Drive Care? [plenary lecture]; Detecting Variation in Care*
Chinese Critical Care Society, Annual Meeting, Dalian, China
- 8/16 *ICU Staffing Models*
Kansas University Critical Care Grand Rounds, Kansas City, Kansas
- 7/16 *Impact of Critical Illness on Long-term Outcomes*
Japanese Intensive Care Society, Annual Meeting, Nagoya, Japan
- 6/16 *Triaging Patient for Intensive Care*
University of Manitoba, Department of Critical Care Medicine Research Seminar, Winnipeg, Manitoba, Canada
- 5/16 *Canadian Critical Care Trials Group: Trials you should be aware of*
Society of Critical Care Anesthesiologists, Annual Meeting, San Francisco, CA
- 3/16 *Dementia after Critical Illness; Pros and Cons of Intermediate Care; ICU Care in Over-Resourced Settings*
International Society of Intensive Care & Emergency Medicine, Annual Meeting, Brussels, Belgium

- 3/16 *How different is UK critical care?; Illuminating the black box of high-dependency care*
Northern England Intensive Care Society, Darlington, UK
- 3/16 *How does prior health status determine critical illness outcomes?*
International Society of Intensive Care & Emergency Medicine Round Table 2016;
Recovery after critical illness: putting the puzzle together, Brussels, Belgium
- 2/16 *Lost in Translation: The Evidence in Support of Follow-up Clinics; How Should a Region Design Critical Care?*
SCCM, Orlando, Florida
- 2/16 *Triaging Surgical Patients for the ICU*
Grand Rounds, Department of Anesthesiology, Johns Hopkins, Baltimore, MD
- 1/16 *Use of intermediate care beds for surgical patients*
Anesthesia Grand Rounds, Dept of Anesthesia, Sunnybrook Hospital
- 10/15 *Use of Quality Metrics to Enhance ICU Care*
Chest, Montreal, Quebec, Canada
- 10/15 *ICU Strain: Using Intermediate Care Beds*
Critical Care Canada Forum, Toronto, ON, Canada
- 10/15 *Use of Intensive Care After Surgery – International Comparisons*
Anesthesia Professor's Rounds for Fellows, Department of Anesthesia, University of Toronto
- 10/15 *Delirium: which medications to avoid; Big Data [panel discussion]*
European Society of Intensive Care Medicine, Berlin, Germany
- 10/15 *Post-Intensive Care Syndrome*
Post-graduate course, European Society of Intensive Care Medicine, Berlin, Germany
- 10/15 *Randomization Strategies and Alternatives*
Post-graduate course, European Society of Intensive Care Medicine, Berlin, Germany
- 9/15 *The role of Stepdown Beds in Hospital Care*
Management Seminar at the **Joint Annual Meeting 2015 of the Swiss Society of Intensive Care Medicine SSICM, Swiss Society for Infectious Diseases SSI, Swiss Society for Emergency Medicine SGNOR/SSMUS and the Swiss Society for Hospital Hygiene SSHH, Interlaken, Switzerland**
- 6/15 *Triaging Patients for the ICU*
Grand Rounds, Department of Anesthesiology, UCSF, San Francisco, California
- 6/15 *Assessing Long-term Outcomes after Critical Illness*
Research Seminar, Department of Anesthesiology, UCSF, San Francisco, California

- 5/15 *Avoiding Post-Intensive Care Syndrome*
American Thoracic Society, Annual Meeting Symposium, Denver, Colorado
- 3/15 *Triaging High-Risk Surgical Patients; Pros and Cons of Separate Stepdown Beds; Who needs palliative care in the ICU?; Detecting variation in care; Psychiatric Disease after Critical Illness; Barriers to De-adoption of what we like.*
International Society of Intensive Care & Emergency Medicine, Annual Meeting, Brussels, Belgium
- 1/15 *ICU Occupancy Rates and Beds per 100,000: Are These Relevant Parameters?*
Society of Critical Care Medicine, Annual Meeting, Phoenix, Arizona
- 10/14 *Misled...by occupancy data; Sepsis: why all the variation in outcomes?; When to think about palliation; Does pre-ICU trajectory matter?*
Critical Care Canada Forum, Toronto, Canada
- 10/14 *Role of Anesthesiologists in peri-operative research*
American Society of Anesthesiologists, Annual Meeting, New Orleans
- 10/14 *Guidelines on Analgesia, Sedation and Delirium Monitoring; Incidence and Pathophysiology of acute and chronic Cognitive Dysfunction*
European Society of Intensive Care Medicine, Barcelona, Spain
- 09/14 *Triaging Patients for the ICU*
Grand Rounds, Department of Anesthesiology, Massachusetts General Hospital, Harvard Medical School, Boston, MA
- 06/14 *Critical Illness in the Continuum of Disease and Disability*
Grand Rounds, Critical Care Medicine, Columbia University, New York, NY
- 05/14 *Psychiatric Diagnoses and Psychoactive Medication Use Among Nonsurgical Critically Ill Patients Receiving Mechanical Ventilation [NEJM and JAMA joint session]*
American Thoracic Society, San Diego, CA
- 03/14 *What is the Right Dose of ICU? [plenary lecture]; Are World Studies the Way Forward?*
ANZICs – New Zealand Regional Meeting, Christchurch, NZ
- 01/14 *Critical Care Top Five Taskforce for Choosing Wisely – Presentation of Selected Recommendations*
Society of Critical Care Medicine, San Francisco, CA
- 11/13 *De-adoption of Medical Practice; Do bed numbers Drive Care?*
Critical Care Canada Forum, Toronto, ON, Canada
- 10/13 *Research and funding in Health Services Research in Anesthesia*
Academy Health – Perioperative Care and Pain Management Interest Group, American Society of Anesthesiology Meeting, San Francisco, CA
- 9/13 *Triaging patients for the ICU*
Anesthesiology Grand Rounds, St Michael's Hospital, University of Toronto, Toronto, Canada

- 4/13 *How many ICU beds do we need?*
Anesthesiology Grand Rounds, Oregon Health Sciences University, Portland, OR
- 3/13 *Do we need intermediate care beds?; What have we learned from international comparisons?*
International Society of Intensive Care & Emergency Medicine, Brussels, Belgium
- 3/13 *How many ICU beds do we need?*
Anesthesiology Grand Rounds, Duke University, Durham, NC
- 2/13 ICU lengths of stay and mortality rates reflect quality. Pro/Con debate.
Controversies in Critical Care, Greater New York Hospital Association, New York, NY
- 1/13 *How many ICU beds do we need?*
Chest conference, Division of Pulmonary and Critical Care Medicine, Yale University
- 1/13 *Epidemiology of Critical Care, long-term outcomes after prolonged mechanical ventilation*
Society of Critical Care Medicine Annual Meeting, San Juan, Puerto Rico
- 12/12 *Intensive Care in the US and UK; Light in the ICU; Long-term outcomes after critical illness*
[Plenary Speaker] Intensive Care Society Annual Meeting, London, UK
- 11/12 *Triaging patients for the ICU*
Anesthesiology Grand Rounds, Albert Einstein, New York, NY
- 10/12 *Early mentored grants (FAER panel); Futility of care*
American Society of Anesthesiologists Annual Meeting, Washington DC
- 10/12 *Providing ICU beds for a population*
Resident's Day, Critical Care Canada Forum, Toronto, ON, Canada
- 10/12 *Intermediate Care Beds; Long-term Mortality after Critical Illness; Targeting Patients for Dexmedetomidine*
Critical Care Canada Forum, Toronto, ON, Canada
- 9/12 *How many ICU beds do we need?*
Critical Care Grand Rounds, Columbia University, New York, NY
- 6/12 *Appropriateness of ICU care: a Global Perspective*
New York Symposium on Neurological and Emergencies and Neurocritical Care, New York, NY
- 5/12 *Critical Care Year in Review; Will every bed be an ICU bed?*
American Thoracic Society Annual Meeting, San Francisco, CA
- 4/12 *Obesity and outcomes in the ICU; The impact of high-dependency beds on outcomes for critically ill patients.*
Intensive Care National Audit & Research Centre, Annual Meeting, London, UK

- 1/12 *The power of data: using Project IMPACT for critical care research*
Critical Care Outcomes Forum, Cerner Corporation, Houston, TX
- 1/12 *Optimizing Critical Care Delivery: Comparative Effectiveness Research, ICU Severity and Outcome Scoring: State of the Art*
Society of Critical Care Medicine Annual Meeting, Houston, TX
- 12/11 *How many ICU beds are enough?*
Grand Rounds, Division of Critical Care Medicine, Beth Israel Hospital, New York, NY
- 12/11 *Dexmedetomidine: targeting the right patients, Education in the ICU: reflections from across the pond*
Intensive Care Society Annual Meeting, London, UK
- 12/11 *Dexmedetomidine in the ICU*
Research lecture, Intensive Care Medicine, University College London
- 11/11 *Long-term mortality after critical illness, Intensity of treatment at the end of life*
Critical Care Canada Forum, Toronto, Canada
- 10/11 *Delirium and Weaning, Pharmaco-efficiency of analgesia, sedation and delirium*
European Society of Intensive Care Medicine, Berlin, Germany
- 10/11 *Long-term outcomes after chronic critical illness*
Society of Critical Care Anesthesiology, Chicago, IL
- 10/11 *The Role of Research in Improving Patient Outcomes in a Cost-Effectiveness Era: Outcomes research in critical care (FAER Panel), Futile Care: Death Panels Should Restrict It: Con*
American Society of Anesthesiologists, Chicago, IL
- 10/11 *Paralytics should be standard of care in ARDS: Pro*
Critical Care Controversies Symposium, Greater New York Hospital Association, New York, NY
- 9/11 *How many ICU beds is enough?*
Critical Care Research Seminar, Montefiore Medical Center, Albert Einstein College of Medicine, New York NY
- 9/11 *How many ICU beds are enough?*
Grand Rounds, Department of Anesthesia, Critical Care and Pain Medicine, Beth Israel Deaconess Medical Center
- 5/11 *Triaging Patients For The ICU: Consequences Of Over And Under-Use Of Intensive Care, Tools, Methods And Pitfalls In Evaluating Long-Term Outcomes After An ICU Stay*
American Thoracic Society Annual Meeting, Denver, CO
- 5/11 *How many ICU beds are enough?*
Grand Rounds, Department of Anesthesiology, Dartmouth Hitchcock Medical Center, Hanover NH

- 5/11 *What happens to patients after intensive care?*
Resident Lecture, Department of Anesthesiology, Dartmouth Hitchcock Medical Center, Hanover, NH
- 3/11 *How many ICU beds?, Light in the ICU, Long-term outcomes – end-points of clinical trials, Sedation – what are the current practices? What works best in my ICU*
International Society of Intensive Care & Emergency Medicine, Brussels, Belgium
- 2/11 *Long-term outcomes after critical illness,*
Grand Rounds, Department of Anesthesiology, Columbia University
- 11/10 *Lessons from US Sedation patterns, What are the survival data after ICU?*
Critical Care Canada Forum, Toronto, CA
- 10/10 *No regulation of futility of care (pro/con debate), Perioperative management of liver failure*
American Society of Anesthesiologists, San Diego, CA
- 5/10 *Variation in critical care resources and outcomes in developed countries*
American Thoracic Society Annual Meeting, New Orleans, LA
- 11/09 *Long-term mortality after critical illness, Challenges of bias in mortality*
Critical Care Canada Forum, Toronto, CA
- 5/09 *Sedation after cardiac surgery*
Care of the Cardiac Surgery Patient, Greater New York Hospital Association Symposium, New York, NY
- 5/09 *International Comparisons of Critical Care*
ICES/CEU Conjoint Rounds, Institute for Clinical Evaluative Sciences, Sunnybrook Health Sciences Centre, Toronto, CA
- 5/09 *Epidemiology of Sedation Use in North America*
Critical Care Grand Rounds, Sunnybrook Health Sciences Centre, Toronto, CA
- 4/09 *Outcomes in Critical Care*
Critical Care Fellows Lecture Series, Department of Anesthesiology and Critical Care, Columbia University, New York, NY
- 1/09 *International Comparisons of Critical Care*
Critical Care Grand Rounds, Columbia University, New York, NY
- 7/08 *Central Lines: Everything You Should Know Before You Touch a Patient*
Resident Lecture Series, Department of Anesthesiology and Critical Care, Columbia University, New York, NY (also given periodically 2009, 2010, 2011)
- 05/08 *International Variation in Protocols and Best Practice Pathways: Does it Matter?*
Mini Symposium, American Thoracic Society Annual Meeting, Toronto, Canada

- 01/08, 02/08, 03/08 *Outcomes in Critical Care*
Resident Lecture Series, Department of Anesthesiology and Critical Care, Columbia University, New York, NY
- 11/07 *Thinking Globally: International Comparisons of Intensive Care Services*
Research Seminar, Department of Anesthesiology, University of Pennsylvania, Philadelphia, PA
- 9/07 *Thinking Globally: International Comparisons of Intensive Care Services*
Journal Club, Depart of Anaesthetics and Critical Care, University College London Hospital, UK
- 4/07 *Thinking Globally: International Comparisons of Intensive Care Services*,
Respiratory and Critical Care Conference, Department of Pulmonary and Critical Care, University of Washington, Seattle, WA
- 10/06 *Increased mortality associated with respiratory failure of extra-pulmonary origin*
Annual Meeting, American Society of Critical Care Anesthesiology, Chicago, IL
- 9/06 *A comparison of intensive care in the United States and United Kingdom*
Research seminar, Intensive Care National Audit & Research Centre, London, UK
- 5/06 *Increased mortality associated with respiratory failure of extra-pulmonary origin*
Academic Evening, Columbia University Department of Anesthesiology, New York, NY
- 1/06 *The mechanics of merging: Using Project IMPACT data for international comparisons*
Project IMPACT Users Group Meeting, San Francisco, CA
- 12/05 *Taking a step back: examining intensive care from a few feet away*
Critical Care Fellows Seminar Series, Columbia University Department of Anesthesiology, New York, NY
- 5/05 *Hospital mortality associated with day and time of discharge from intensive care*
Academic Evening, Columbia University Department of Anesthesiology, New York, NY
- 3/03 *Hospital mortality associated with day and time of admission to intensive care units in England, Wales and Northern Ireland*
Research Seminar Series, University of Sheffield, School of Health and Related Research
- 3/03 *Impact of exclusion criteria from severity of disease scoring methods on outcomes in intensive care*
Intensive Care National Audit & Research Centre Annual Meeting London, UK

INTERVIEWS AND MEDIA RELATIONS

- 2023 Return on Generosity (ROG) podcast. 155. Hannah Wunsch – Generosity in Healthcare: Learning from History – Bridge Between, Nov
- 2023 WBUR/NPR, Here & Now with Scott Tong and Julia Corcoran, The ‘Autumn Ghost’ tells of innovation that saved lives during polio epidemic, Sept 18

- 2023 WCAI/NPR, The Point with Mindy Todd, Polio and the Dawn of Modern Medicine, Sept 6
- 2023 The Nocturnist Podcast, Conversations, Aug 17
- 2023 Medicine and the Machine Podcast, How the Modern ICU was galvanized by a polio epidemic, Aug 15
- 2023 History Hack Podcast, 1950s Pandemic, June 30
- 2023 The Critical Care Commute Podcast, The Autumn Ghost, May 12
- 2023 CBC Radio, Fresh Air [Canada], How the polio epidemic revolutionized modern medicine, May 22
- 2023 CBC Radio, The Current with Matt Galloway, May 9
- 2021 STAT News, First Opinion Podcast, An ICU physician on the dark side of mechanical ventilators, Sept 1
- 2021 PBS News Hour: What Canada's universal health system could teach the U.S. about managing a pandemic, April 15, 2021
- 2020 Australian Broadcasting Corporation (ABC) radio interview, "The 1952 Copenhagen polio epidemic and invention of the ICU, April 20, 2020
- 2020 CBC News "It's not the number of COVID-19 patients posing a challenge for ICUs – it's how long they stay, April 16, 2020
- 2020 CBC News "Some hospitals across Canada could face significant shortages of ICU beds, projections reveal, April 11, 2020
- 2010 JAMA Video Interview to accompany article publication
- 2010 Radio Interview, WNYC [New York Public Radio] to accompany JAMA article publication