

CURRICULUM VITAE

Rameela Raman, PhD

Office Address Department of Biostatistics
Vanderbilt University School of Medicine
2525 West End Ave, Suite 11000
Nashville, TN 37203

Office Phone 615.322.7365

Google Scholar: <https://scholar.google.com/citations?user=8Dxl24cAAAAJ&hl=en>

NCBI Bibliography: <https://www.ncbi.nlm.nih.gov/myncbi/rameela.raman.1/bibliography/public/r.raman@vanderbilt.edu>

Email: r.raman@vanderbilt.edu

EDUCATION

2008 MA, Biostatistics: State University of New York at Buffalo, New York

2011 PhD, Biostatistics: State University of New York at Buffalo, New York

ACADEMIC APPOINTMENTS

11/11 – 01/13 Instructor, Department of Biostatistics, Vanderbilt University

02/13 – 11/19 Assistant Professor, Department of Biostatistics, Vanderbilt University

12/19 – Present Associate Professor, Department of Biostatistics, Vanderbilt University

OTHER EMPLOYMENT

2006 – 2007 Graduate Research Assistant, Department of Biostatistics, SUNY at UB

2007 – 2011 Pre-Doctoral Research Affiliate, Roswell Park Cancer Institute, Buffalo

2017 – 2019 Statistical Consultant, Chapin Hall at the University of Chicago

PROFESSIONAL ORGANIZATIONS

2005 - American Statistical Association (ASA)
Section member: Record Linkage Interest Group, Government Statistics Section, Health Policy Statistics Section, Section on Statistics in Epidemiology

2017 - Caucus for Women in Statistics (CWS)

2021 - Society for Clinical Trials (SCT)

2021 - 2022 American Delirium Society

2022 – 2024 Council of Chapters representative - Middle Tennessee Chapter of the American Statistical Association

PROFESSIONAL ACTIVITIES

Intramural

2014 Member, Linda Stewart Applied Analysis Report Award, Department of Biostatistics, Vanderbilt University

2016 Clinical Research Judge, Poster Presentations, 34th Annual Research Forum, Vanderbilt University Medical Center

2017 - 2019 Interviewer, Vanderbilt Medical School Admissions

2018 - Member, Biostatistics Graduate Program Admissions Committee

2018 - 2020	Voting committee member, Institutional Review Board for the Protection of Human Subjects, Vanderbilt University
2019	Reviewer, Data Science Institute-Summer Research Program (DSI-SRP)
2019 -	Elected Member, Vanderbilt Academy for Excellence in Education
2019 - 2021	Member, Faculty search committee, Department of Biostatistics, Vanderbilt University
2022-	Interviewer, Vanderbilt Medical School Admissions
2023	Reviewer, Vanderbilt Undergraduate Summer Research Program (VUSRP)
2023	Chair, Patrick Arbogast Collaborative Publication Award, Department of Biostatistics, Vanderbilt University
2024	Chair, Department of Biostatistics Retreat Committee

Extramural

Study Section/Scientific Review Committees for national and international funding agencies

Mar 2018	NIH/NCCIH grant review panel: ZAT1 AJT (06) Exploratory Clinical Trials of Mind and Body Interventions (R34 and U01)
Feb 2019	NIH/NCCIH grant review panel: ZAT1 SM (46) Special Emphasis Panel Mechanistic Studies to Optimize Mind and Body Interventions (R33 and R33/R61)
Feb 2019	NIH/NCCIH grant review panel: ZAT1 PJ (04) Exploratory Clinical Trials of Mind and Body Interventions (R34 and U01)
July 2019	NIH/NCCIH grant review panel: ZAT1 PJ (06) Exploratory Clinical Trials of Mind and Body Interventions (R34 and U01)
July 2019	NIH/NCCIH grant review panel: ZAT1 SM (50) Special Emphasis Panel Early Phase Clinical Trials of Natural Products (R33 and R33/R61) and Natural Products Phase II Clinical Trial Cooperative Agreement (U01)
Nov 2019	NIH/NCCIH grant review panel: ZAT1 SM (53) Special Emphasis Panel Exploratory Mechanistic studies to Optimize Mind and Body Interventions (R33 and R61/R33)
Dec 2019	NIH/NCCIH grant review panel: ZAT1 SM (51) Special Emphasis Panel Exploratory Clinical Trials of Mind and Body Intervention (R34)
Dec 2019	NIH/NCCIH grant review panel: ZAT1 PJ (07) Exploratory Clinical Trials of Mind and Body Interventions (R34 and U01)
Jan 2020	Review panel: National Science Foundation (NSF)
Dec 2020	Grant Proposal Reviewer: National Science Centre, Poland
Jan 2021	Review panel: National Science Foundation (NSF)
Feb 2021	NIH Review panel: Kidney, Nutrition, Obesity and Diabetes Study Section (KNOD) 2021/05 study section
Feb 2021	Grant Proposal Reviewer: National Research Council, Swiss National Science Foundation (SNSF), Switzerland
April 2021	Merit Review Panel: PCORI, Cycle 3 2020: Improving Methods for Conducting Patient-Centered Outcomes Research.
Nov 2021	NIH Review panel: NIDCR Special Emphasis Panel ZDE1 YM (10)
May 2022	CDC Review panel: ZCE1 MLW (08) R Special Emphasis Panel, Using Data Linkage to Understand Suicide Attempts, Self-Harm and Unintentional Drowning
July 2022	Merit Review Panel: PCORI, Cycle 1 2022: Prevention, Early Identification, and Treatments of Delirium in Older Adults.
Jan 2023	Grant Proposal Reviewer: National Research Council, Swiss National Science Foundation (SNSF), Switzerland
Mar 2023	Grant Proposal Reviewer: Israel Science Foundation (ISF)
May 2023	CDC Review panel: ZCE1 AW (4B) R - PANEL B: CE24-001 - Grants for Injury Control Research Centers (ICRC)

DSMB

2019 - 2022	Data and Safety Monitoring Board Member, FREEDOM Study, NIA.
2019 - 2024	Data and Safety Monitoring Board Member, REHAB-PH Study, NHLBI.

Journals Reviewed for:

American Journal of Respiratory and Critical Care Medicine, American Journal of Kidney Diseases, American Journal of Epidemiology, Annals of the American Thoracic Society, BMC Medicine, Intensive Care Medicine, Journal of Applied Statistics, Journal of Hospital Medicine, Journal of General Internal Medicine, Journal of Statistics Education, Pharmaceutical Statistics, Statistics and Its Interface, Statistics in Medicine, The Lancet, The Lancet Respiratory Medicine, The Lancet Digital Health, The Journal of Urology.

Other professional activities:

2009-2010	Judge, American Statistical Association K-12 Statistics Project Competition.
2010-2012	Pro Bono statistical consultant, Statistics Without Borders (SWB) Session Chair, useR! 2012
2016-2018	Judge, American Statistical Association K-12 Statistics Project Competition
2017-2021	Selected Participant, ASA Statistical Education Mentoring Program
2021	Mentor, ASA Statistical Education Mentoring Program
2021	Moderator, American Delirium Society Statistical Consultation Session
2022	Methods Consultant – Network for Investigation of Delirium: Unifying Scientists Pilot Grants
2023	Methods Consultant – Network for Investigation of Delirium: Unifying Scientists Pilot Grants
2024	Methods Consultant – Network for Investigation of Delirium: Unifying Scientists Pilot Grants

Awards and Honors:

2009	ENAR Travel Award to attend the Fostering Diversity in Biostatistics Workshop
2009	Richard N. Schmidt Scholarship Travel Award to attend ENAR
2010	ASA/Boyd Harshbarger Travel Award to attend the Southern Regional Council on Statistics (SRCOS) Summer Research Conference
2015	ENAR Travel Award to attend the Junior Biostatisticians in Health Research Workshop
2015	ENAR Travel Award to attend the Fostering Diversity in Biostatistics Workshop
2016	Patrick G. Arbogast Award for best 2015 collaborative publication, Department of Biostatistics, Vanderbilt University School of Medicine
2018	Selected as a participant and received research funds to enhance teaching, Course Design Institute at the Vanderbilt Center for Teaching (\$500)
2018	Oak Ridge Associated Universities Events Sponsorship Program award to facilitate the ‘Distinguished Women in Statistics’ seminar series (\$4,000)
2019	Elected into Membership in the Vanderbilt Academy for Excellence in Education
2019	Patrick G. Arbogast Award for best 2018 collaborative publication, Department of Biostatistics, Vanderbilt University School of Medicine
2019	Outstanding Faculty Mentor Award, Vanderbilt Department of Biostatistics (awarded by the Biostatistics graduate student body)
2021	Nominated for the Vanderbilt Women’s Center Mentoring Award by graduate students
2021	Inducted to the Delta Omega, National Honor Society in Public Health (Gamma Lambda Chapter)
2021	Southeastern Conference (SEC) Visiting Faculty Travel Grant (\$750)
2021	Vanderbilt Center for Health Services Research Grant (\$10,000)

TEACHING ACTIVITIES

Courses

Fall 2005	Teaching Assistant: Department of Biostatistics, SUNY at Buffalo, <i>STA 119 - Introduction to Statistics</i> .
------------------	---

Spring 2006	Teaching Assistant: Department of Biostatistics, SUNY at Buffalo, <i>STA 119 - Introduction to Statistics</i> .
Summer 2009	Course Instructor: Department of Biostatistics, SUNY at Buffalo, <i>STA 119 - Introduction to Statistics</i>
Spring 2013, 2014	Course Instructor: Department of Biomedical Engineering, Vanderbilt University School of Engineering, <i>BME 260 - Analysis of biomedical data</i>
Fall 2015-2018	Course Co-Instructor: School of Nursing, Vanderbilt University, <i>NURS 8014 [Formerly NURS 414] - Statistics in Health Sciences</i>
Spring 2015-2023	Course Co-Instructor: School of Nursing, Vanderbilt University, <i>NURS 8014 [Formerly NURS 414] - Statistics in Health Sciences</i>
Fall 2023 –	Course Instructor: Vanderbilt University School of Medicine, <i>IDIS 5220: PLAN – MD Program</i> .
Spring 2024 –	Course Instructor: Department of Biostatistics, Vanderbilt University School of Medicine, <i>BIOS 7352. Statistical Collaboration in Health Sciences II</i> .

Research Supervision: Academic Advising and Mentoring of Staff/Graduate Students

11/11 – 01/13	Wei Wang, PhD - Biostat II, Department of Biostatistics, Vanderbilt University School of Medicine
09/13 – 12/18	David Schlueter – PhD, Department of Biostatistics, Vanderbilt University School of Medicine
10/13 – 01/19	Jennifer L. Thompson, MPH - Biostat IV, Department of Biostatistics, Vanderbilt University School of Medicine
01/14 – 06/15	Xulei Liu, MA - Biostat III, Department of Biostatistics, Vanderbilt University School of Medicine
09/14 – 09/21	Ryan Jarrett – PhD Student, Department of Biostatistics, Vanderbilt University School of Medicine
08/19 – 09/21	Wencong Chen, PhD – Biostat III, Department of Biostatistics, Vanderbilt University School of Medicine
02/19 -	Onur M Orun, MS - Biostat III, Department of Biostatistics, Vanderbilt University School of Medicine
08/19 –	Julia Thome – PhD Student, Department of Biostatistics, Vanderbilt University School of Medicine
08/19 –	Jamie Joseph – PhD Student, Department of Biostatistics, Vanderbilt University School of Medicine
09/21 –	Caroline Birdrow, MS – Biostat II, Department of Biostatistics, Vanderbilt University School of Medicine
08/21 – 12/22	Joshua Slone – PhD Student, Department of Biostatistics, Vanderbilt University School of Medicine
08/22 -	Megan Hall – MS Student, Department of Biostatistics, Vanderbilt University School of Medicine
07/23 -	Alexis Fleming – PhD Student, Department of Biostatistics, Vanderbilt University School of Medicine

Oral Examinations/Thesis Reader/Dissertation Committees:

Jo Ellen Wilson (Epidemiology PhD, 2023)
David Schlueter (Biostatistics PhD, 2015)
Uchechukwu Sampson (Biostatistics MS, 2014)
Julia Thome (Biostatistics PhD, expected 2024)

RESEARCH PROGRAM

Primary Academic Collaborations:

2011- Tennessee Department of Children’s Services
2013- CIBS Centre/ICU Delirium and Cognitive Impairment Group at Vanderbilt

2013- Emerging Infections Program – Collaboration of the Tennessee Department of Health, the Vanderbilt University School of Medicine, Department of Health Policy and the Centers for Disease Control and Prevention
2015-2023 Vanderbilt University School of Nursing

***Title: Emerging Infections Program (EIP) Core**

Major Goals: The major goals are comprehensive enhanced population-based public health surveillance for laboratory-confirmed invasive bacterial infections, influenza, encephalitis, human papillomavirus and pre-cancerous lesions. (Influenza, COVID & ABC)

*Status of Support: ACTIVE

Project Number: VUMC07131 / (34349-18223)(Edison ID 80552)

Name of PD/PI: William Schaffner

*Source of Support: State of Tennessee/CDC

*Primary Place of Performance: VUMC

Project/Proposal Start and End Date: (MM/YYYY) (if available): 01/01/2012 - 12/31/2024

* Total Award Amount (including Indirect Costs): \$38,296,761

Role: Co-Investigator

* Person Months (Calendar/Academic/Summer) per budget period.

Year (YYYY)	Person Months (##.##)
2024	2.40 calendar months

***Title: Cognitive and Physical Exercise to Improve Outcomes after Surgery in the Elderly**

Major Goals: The major goals of the COPE-iOS study will examine whether a comprehensive program of computerized cognitive training, guided progressive physical exercise, and health education performed throughout the entire perioperative period will improve long-term cognitive and disability outcomes in elderly surgical patients at high risk for decline.

*Status of Support: ACTIVE

Project Number: 5R01AG061161-04

Name of PD/PI: Christopher G. Hughes

*Source of Support: NIA

*Primary Place of Performance: VUMC

Project/Proposal Start and End Date: (MM/YYYY) (if available): 03/01/2020 - 02/28/2025

* Total Award Amount (including Indirect Costs): \$4,136,127

Role: Co-Investigator

* Person Months (Calendar/Academic/Summer) per budget period.

Year (YYYY)	Person Months (##.##)
2025	0.24 calendar months

***Title: BRAIN-ICU-2 Study: Bringing to Light the Risk Factors and Incidence of Neuropsychological Dysfunction (Dementia) in ICU Survivors, 2nd Study**

Major Goals: The major goals are to characterize which patients show cognitive reserve, recovery, and AD/DRD progression, and in so doing, address knowledge gaps between delirium and AD/DRD and facilitate future interventions. Our overarching hypothesis: Delirium results in neurodegenerative and neuropathological changes that can be measured with imaging biomarkers, plasma/cerebrospinal fluid(CSF) biomarkers, and autopsy measures of neuropathology, all of which ultimately drive post-ICU AD/DRD phenotypes, which we will characterize in BRAIN-ICU-2.

*Status of Support: ACTIVE

Project Number: 5R01AG058639-05

Name of PD/PI: Eugene W. Ely

*Source of Support: NIA

*Primary Place of Performance: VUMC

Project/Proposal Start and End Date: (MM/YYYY) (if available): 04/15/2019 - 01/31/2025

* Total Award Amount (including Indirect Costs): \$18,028,777

Role: Co-Investigator

* Person Months (Calendar/Academic/Summer) per budget period.

Year (YYYY)	Person Months (##.##)
2025	0.24 calendar months

***Title: Behavioral Health Sciences Center of Excellence**

Major Goals: The major goals of Centers of Excellence are tertiary care academic medical centers, provider agencies, and partners possessing expertise in children's physical and behavioral health. They are focused on improving comprehensive well-being of children in or at risk of state custody. Centers of Excellence assist in providing science-based guidance to improve children's health, behavioral outcomes, and improve systems serving children by providing clinical consultations, evaluations, and limited direct services to children with complex needs.

*Status of Support: ACTIVE

Project Number: VUMC79162 (35910-02278)

Name of PD/PI: Jon Ebert

*Source of Support: CMMS-BCBS of TN

*Primary Place of Performance: VUMC

Project/Proposal Start and End Date: (MM/YYYY) (if available): 11/01/2019 - 06/30/2024

* Total Award Amount (including Indirect Costs): \$6,257,274

Role: Biostatistician

* Person Months (Calendar/Academic/Summer) per budget period.

Year (YYYY)	Person Months (##.##)
2024	0.60 calendar months

***Title: Center of Excellence Quality and Safety Projects**

Major Goals: The major goals of Vanderbilt University's Departments of Psychiatry and Pediatrics have collaborated to create a program to serve children who are at-risk for or in state custody. The State of Tennessee has designated our program a Center of Excellence for Children in State Custody and our services extend to 39 Middle Tennessee counties. Our consultation, diagnostic and care plan development services are available to the Department of Children's Services, Department of Health, community providers and Best Practice Network providers involved in the care of children in or at-risk for custody.

*Status of Support: ACTIVE

Project Number: VUMC32655 / 35910-02279

Name of PD/PI: Kathy Gracey

*Source of Support: Department of Justice

*Primary Place of Performance: VUMC

Project/Proposal Start and End Date: (MM/YYYY) (if available): 05/01/2006 - 06/30/2024

* Total Award Amount (including Indirect Costs): \$30,429,698

Role: Biostatistician

* Person Months (Calendar/Academic/Summer) per budget period.

Year (YYYY)	Person Months (##.##)
2024	3.60 calendar months

***Title: Remotely Monitored, Mobile health-supported High Intensity Interval Training after COVID-19 Critical Illness (REMM-HIIT COVID-19)**

Major Goals: The major goals are the proposed randomized REMMHIIT-COVID-19 trial [REmotely Monitored, Mobile health-supported High Intensity Interval Training after COVID-19 Critical Illness] will assess a successfully piloted novel home rehabilitation program to improve recovery of cardiorespiratory fitness (CRF) and physical function in COVID-19 ICU survivors who frequently experience profound post-hospital impairments in physical function, poor quality of life, muscle wasting/weakness, and new cognitive deficits collectively known as post-intensive care syndrome (PICS). The unique strengths of the application include a home-based innovative, tailored, structured, and progressive multidomain rehabilitation strategy, scientifically rigorous clinical trial design, an inter-disciplinary research team, access to a large COVID-19 ICU patient pool, innovative mobile health device platform, statistical power, patient safety, and inclusion of CRF performance-based as well as patient-reported post-hospital outcomes.

*Status of Support: ACTIVE

Project Number: VUMC101098 / R01HD107103

Name of PD/PI: Paul Wischmeyer (Duke)

*Source of Support: Duke/NICHD

*Primary Place of Performance: VUMC

Project/Proposal Start and End Date: (MM/YYYY) (if available): 09/17/2021 - 08/31/2026

* Total Award Amount (including Indirect Costs): \$841,846 (subcontract)

Role: Biostatistician

* Person Months (Calendar/Academic/Summer) per budget period.

Year (YYYY)	Person Months (##.##)
2024	1.80 calendar months
2025	0.60 calendar months
2026	0.60 calendar months

VA Effort

***Title: Return-III VA Study/Wes Ely Merit Grant (VA IPA)**

Major Goals: Dr. Raman will provide Biostatistical expertise for the RETURN-III VA study.

*Status of Support: ACTIVE

Project Number: VUMC95431

Name of PD/PI: Eugene (Wes) Ely

*Source of Support: VA

*Primary Place of Performance: VUMC

Project/Proposal Start and End Date: (MM/YYYY) (if available): 07/01/2021 - 04/30/2025

* Total Award Amount (including Indirect Costs): \$67,152

Role: Co-Investigator

PUBLICATIONS AND PRESENTATIONS– Also published under the last name 'Chandrasekhar'

Peer-Reviewed Publications

1. Chirumamilla AP, Wilson MF, Wilding GE, **Chandrasekhar R**, Ashraf H. Outcome of renal insufficiency patients undergoing coronary artery bypass graft surgery. *Cardiology*. 2008;111(1):23-9.
2. **R Chandrasekhar**, JC Miecznikowski, DP Gaile, V Govindaraju, FV Bright, KF Sellers. Xerogel Package. (2009). *Chemometrics and Intelligent Laboratory Systems*, 96(1): 70-74.
3. Khoury T, Arshad A, Bogner P, Ramnath N, Zhang S, **Chandrasekhar R**, Wilding G, Alrawi S, Tan D. Apoptosis-related (survivin, Bcl-2), tumor suppressor gene (p53), proliferation (Ki-67), and non-receptor tyrosine kinase (Src) markers expression and correlation with clinicopathologic variables in 60 thymic neoplasms. *Chest*. 2009 Jul;136(1):220-228.
4. Guru KA, Hussain A, **Chandrasekhar R**, Piacente P, Hussain A, Chandrasekhar R, Piacente P, Bienko M, Glasgow M, Underwood W, Wilding G, Mohler JL, Menon M, Peabody JO. Current status of robot-assisted surgery in urology: a multi-national survey of 297 urologic surgeons. *Can J Urol*. 2009 Aug;16(4):4736-41
5. Singh SS, Mehedint DC, Ford OH 3rd, Jeyaraj DA, Pop EA, Maygarden SJ, Ivanova A, **Chandrasekhar R**, Wilding GE, Mohler JL. Comparison of ACINUS, caspase-3, and TUNEL as apoptotic markers in determination of tumor growth rates of clinically localized prostate cancer using image analysis. *Prostate*. 2009 Nov 1;69(15):1603-1610.
6. Yuh BE, Ciccone J, **Chandrasekhar R**, Butt ZM, Wilding GE, Kim HL, Mohler JL, Guru KA. Impact of previous abdominal surgery on robot-assisted radical cystectomy. *JSLs*. 2009 Jul-Sep;13(3):398-405.
7. Khoury T, Sait S, Hwang H, **Chandrasekhar R**, Wilding G, Tan D, Kulkarni S. Delay to formalin fixation effect on breast biomarkers. *Mod Pathol*. 2009 Nov;22(11):1457-67.
8. Al-Agha OM, Liu W, **Chandrasekhar R**, Wilding G, Tan D, Alrawi S, Khoury T. CD138 (Syndecan-1) in thymic tumors: correlation with various World Health Organization types and clinical outcome. *Int J Clin Exp Pathol*. 2010 Feb 10;3(3):280-7.
9. May KS, Khushalani NI, **Chandrasekhar R**, Wilding GE, Iyer RV, Ma WW, Flaherty L, Russo RC, Fakhri M, Kuvshinov BW, Gibbs JF, Javle MM, Yang GY. Analysis of clinical and dosimetric factors

associated with change in renal function in patients with gastrointestinal malignancies after chemoradiation to the abdomen. *Int J Radiat Oncol Biol Phys.* 2010 Mar 15;76(4):1193-8.

10. May KS, Yang GY, Khushalani NI, **Chandrasekhar R**, Wilding GE, Flaherty L, Malhotra HK, Russo RC, Warner JC, Yap JC, Iyer RV, Nwogu CE, Yendamuri SS, Gibbs JF, Nava HR, Lamonica D, Thomas CR Jr. Association of Technetium(99m) MAG-3 renal scintigraphy with change in creatinine clearance following chemoradiation to the abdomen in patients with gastrointestinal malignancies. *J Gastrointest Oncol.* 2010 Sep;1(1):7-15.
11. Seixas-Mikelus SA, Adal A, Kesavadas T, Baheti A, Srimathveeravalli G, Hussain A, **Chandrasekhar R**, Wilding GE, Guru KA. Can image-based virtual reality help teach anatomy?. *J Endourol.* 2010 Apr;24(4):629-34.
12. Hayn MH, Hussain A, Mansour AM, Andrews PE, Carpentier P, Castle E, Dasgupta P, Rimington P, Thomas R, Khan S, Kibel A, Kim H, Manoharan M, Menon M, Motttrie A, Ornstein D, Peabody J, Pruthi R, Palou Redorta J, Richstone L, Schanne F, Stricker H, Wiklund P, **Chandrasekhar R**, Wilding GE, Guru KA. The learning curve of robot-assisted radical cystectomy: results from the International Robotic Cystectomy Consortium. *Eur Urol.* 2010 Aug;58(2):197-202.
13. Seixas-Mikelus SA, Kesavadas T, Srimathveeravalli G, **Chandrasekhar R**, Wilding GE, Guru KA. Face validation of a novel robotic surgical simulator. *Urology.* 2010 Aug;76(2):357-60.
14. Yang GY, May KS, Iyer RV, **Chandrasekhar R**, Wilding GE, McCloskey SA, Khushalani NI, Yendamuri SS, Gibbs JF, Fakih M, Thomas CR Jr. Renal atrophy secondary to chemoradiotherapy of abdominal malignancies. *Int J Radiat Oncol Biol Phys.* 2010 Oct 1;78(2):539-46.
15. Guru K, Seixas-Mikelus SA, Hussain A, Blumenfeld AJ, Nyquist J, **Chandrasekhar R**, Wilding GE. Robot-assisted intracorporeal ileal conduit: Marionette technique and initial experience at Roswell Park Cancer Institute. *Urology.* 2010 Oct;76(4):866-71.
16. Yuh BE, Hussain A, **Chandrasekhar R**, Bienko M, Piacente P, Wilding G, Menon M, Peabody J, Guru KA. Comparative analysis of global practice patterns in urologic robot-assisted surgery. *J Endourol.* 2010 Oct;24(10):1637-44.
17. Qiu J, Kulkarni S, **Chandrasekhar R**, Rees M, Hyde K, Wilding G, Tan D, Khoury T. Effect of delayed formalin fixation on estrogen and progesterone receptors in breast cancer: a study of three different clones. *Am J Clin Pathol.* 2010 Nov;134(5):813-9.
18. duPont NC, **Chandrasekhar R**, Wilding G, Guru KA. Current trends in robot assisted surgery: a survey of gynecologic oncologists. *Int J Med Robot.* 2010 Dec;6(4):468-72.
19. Khoury T, **Chandrasekhar R**, Wilding G, Tan D, Cheney RT. Tumour eosinophilia combined with an immunohistochemistry panel is useful in the differentiation of type B3 thymoma from thymic carcinoma. *Int J Exp Pathol.* 2011 Apr;92(2):87-96.
20. Seixas-Mikelus SA, Stegemann AP, Kesavadas T, Srimathveeravalli G, Sathyaseelan G, **Chandrasekhar R**, Wilding GE, Peabody JO, Guru KA. Content validation of a novel robotic surgical simulator. *BJU Int.* 2011 Apr;107(7):1130-5.
21. Kesavadas T, Stegemann A, Sathyaseelan G, Chowriappa A, Srimathveeravalli G, Seixas-Mikelus S, **Chandrasekhar R**, Wilding G, Guru K. Validation of Robotic Surgery Simulator (RoSS). *Stud Health Technol Inform.* 2011;163:274-6.
22. Wilding GE, **Chandrasekhar R**, Hutson AD. A new linear model-based approach for inferences about the mean area under the curve. *Stat Med.* 2012 Dec 10;31(28):3563-78.
23. Khoury T, Ademuyiwa FO, **Chandrasekhar R**, Jabbour M, Deleo A, Ferrone S, Wang Y, Wang X. Aldehyde dehydrogenase 1A1 expression in breast cancer is associated with stage, triple negativity, and outcome to neoadjuvant chemotherapy. *Mod Pathol.* 2012 Mar;25(3):388-97.
24. Stegemann A, Rehman S, Brewer K, Kesavadas T, Hussain A, **Chandrasekhar R**, Wilding GE, Guru KA. Short-term patient-reported quality of life after robot-assisted radical cystectomy using the Convalescence and Recovery Evaluation. *Urology.* 2012 Jun;79(6):1274-9.
25. Monhollen L, Morrison C, Ademuyiwa FO, **Chandrasekhar R**, Khoury T. Pleomorphic lobular carcinoma: a distinctive clinical and molecular breast cancer type. *Histopathology.* 2012 Sep;61(3):365-77.
26. Poch MA, Stegemann A, **Chandrasekhar R**, Hayn M, Wilding G, Guru KA. Does body mass index impact the performance of robot-assisted intracorporeal ileal conduit?. *J Endourol.* 2012 Jul;26(7):857-60.

27. Malik NK, May KS, **Chandrasekhar R**, Wee W, Flaherty L, Iyer R, Gibbs J, Kuvshinoff B, Wilding G, Warren G, Yang GY. Treatment of locally advanced unresectable pancreatic cancer: a 10-year experience. *J Gastrointest Oncol*. 2012 Dec;3(4):326-34.
28. Zoorob R, Buchowski MS, Beech BM, Canedo JR, **Chandrasekhar R**, Akohoue S, Hull PC. Healthy families study: design of a childhood obesity prevention trial for Hispanic families. *Contemp Clin Trials*. 2013 Jul;35(2):108-21.
29. Epstein RA, Bobo WV, Shelton RC, Arbogast PG, Morrow JA, Wang W, **Chandrasekhar R**, Cooper WO. Increasing use of atypical antipsychotics and anticonvulsants during pregnancy. *Pharmacoepidemiol Drug Saf*. 2013 Jul; 22(7):794-801.
30. Epstein RA, Bobo WV, Martin PR, Morrow JA, Wang W, **Chandrasekhar R**, Cooper WO. Increasing pregnancy-related use of prescribed opioid analgesics. *Ann Epidemiol*. 2013 Aug;23(8):498-503.
31. Frangoul H, Min E, Wang W, **Chandrasekhar R**, Calder C, Evans M, Manes B, Bruce K, Brown V, Ho R, Domm J. Incidence and risk factors for hypogammaglobulinemia in pediatric patients following allo-SCT. *Bone Marrow Transplant*. 2013 Nov;48(11):1456-9.
32. Yang GY, Malik NK, **Chandrasekhar R**, Ma WW, Flaherty L, Iyer R, Kuvshinoff B, Gibbs J, Wilding G, Warren G, May KS. Change in CA 19-9 levels after chemoradiotherapy predicts survival in patients with locally advanced unresectable pancreatic cancer. *J Gastrointest Oncol*. 2013 Dec;4(4):361-9.
33. Kane I, Abramo T, Meredith M, Williams A, Crossman K, Wang W, **Chandrasekhar R**. Cerebral oxygen saturation monitoring in pediatric altered mental status patients. *Am J Emerg Med*. 2014 Apr;32(4):356-62.
34. Yoder PJ, Bottema-Beutel K, Woynaroski T, **Chandrasekhar R**, Sandbank M. Social communication intervention effects vary by dependent variable type in preschoolers with autism spectrum disorders. *Evid Based Commun Assess Interv*. 2013;7(4):150-174.
35. **Chandrasekhar R**, Wilding GE. A modification of a percentile estimation procedure based on generalized polya urns. *Communications in Statistics – Theory and Methods*; 2014; 2951-2957.
36. **Chandrasekhar R**, Shi Y, Hutson AD, Wilding GE. A Novel Approach to Testing for Average Bioequivalence Based on Modeling the Within-Period Dependence Structure. *J Biopharm Stat*. 2015;25(6):1320-38.
37. Yevchak AM, Han JH, Doherty K, Archambault EG, Kelly B, **Chandrasekhar R**, Ely EW, Rudolph JL. Impaired Arousal in Older Adults Is Associated With Prolonged Hospital Stay and Discharge to Skilled Nursing Facility. *J Am Med Dir Assoc*. 2015 Jul 1;16(7):586-9.
38. **Chandrasekhar R**, Shi Y, Hutson AD, Wilding GE. Likelihood-based inferences about the mean area under a longitudinal curve in the presence of observations subject to limits of detection. *Pharm Stat*. 2015 May-Jun;14(3):252-61.
39. *Sloan C, **Chandrasekhar R**, Mitchel E, Schaffner W, Lindegren ML. Socioeconomic Disparities and Influenza Hospitalizations, Tennessee, USA. *Emerg Infect Dis*. 2015 Sep;21(9):1602-10.
40. Epstein RA, Schlueter DJ, Gracey KA, **Chandrasekhar R**, Cull MJ. Examining placement disruption in child welfare. *Residential Treatment for Children & Youth*; 32(3): 224-232.
41. Brummel N, **Chandrasekhar R**, Ely EW. Willie Sutton and the future of acute respiratory distress syndrome research. *Am J Respir Crit Care Med*. 2015 Jan 1;191(1):10-1.
42. Tomichek JE, Stollings JL, Pandharipande PP, **Chandrasekhar R**, Ely EW, Girard TD. Antipsychotic prescribing patterns during and after critical illness: a prospective cohort study. *Crit Care*. 2016 Nov 24;20(1):378.
43. Patel MB, Jackson JC, Morandi A, Girard TD, Hughes CG, Thompson JL, Kiehl AL, Elstad MR, Wasserstein ML, Goodman RB, Beckham JC, **Chandrasekhar R**, Dittus RS, Ely EW, Pandharipande PP. Incidence and Risk Factors for Intensive Care Unit-related Post-traumatic Stress Disorder in Veterans and Civilians. *Am J Respir Crit Care Med*. 2016 Jun 15;193(12):1373-81.
44. Hughes CG, Pandharipande PP, Thompson JL, **Chandrasekhar R**, Ware LB, Ely EW, Girard TD. Endothelial Activation and Blood-Brain Barrier Injury as Risk Factors for Delirium in Critically Ill Patients. *Crit Care Med*. 2016 Sep;44(9):e809-17.
45. Norman BC, Jackson JC, Graves JA, Girard TD, Pandharipande PP, Brummel NE, Wang L, Thompson JL, **Chandrasekhar R**, Ely EW. Employment Outcomes After Critical Illness: An Analysis of the Bringing to Light the Risk Factors and Incidence of Neuropsychological Dysfunction in ICU Survivors Cohort. *Crit Care Med*. 2016 Nov;44(11):2003-2009.

46. Boyd SB, Upender R, Walters AS, Goodpaster RL, Stanley JJ, Wang L, **Chandrasekhar R**. Effective Apnea-Hypopnea Index ("Effective AHI"): A New Measure of Effectiveness for Positive Airway Pressure Therapy. *Sleep*. 2016 Nov 1;39(11):1961-1972.
47. Kistka HM, Nayeri A, Wang L, Dow J, **Chandrasekhar R**, Chambless LB. Publication misrepresentation among neurosurgery residency applicants: an increasing problem. *J Neurosurg*. 2016 Jan;124(1):193-8.
48. Smith HA, Gangopadhyay M, Goben CM, Jacobowski NL, Chestnut MH, Savage S, Rutherford MT, Denton D, Thompson JL, **Chandrasekhar R**, Acton M, Newman J, Noori HP, Terrell MK, Williams SR, Griffith K, Cooper TJ, Ely EW, Fuchs DC, Pandharipande PP. The Preschool Confusion Assessment Method for the ICU: Valid and Reliable Delirium Monitoring for Critically Ill Infants and Children. *Crit Care Med*. 2016 Mar;44(3):592-600.
49. Hughes CG, Patel MB, Jackson JC, Girard TD, Geevarghese SK, Norman BC, Thompson JL, **Chandrasekhar R**, Brummel NE, May AK, Elstad MR, Wasserstein ML, Goodman RB, Moons KG, Dittus RS, Ely EW, Pandharipande PP. Surgery and Anesthesia Exposure Is Not a Risk Factor for Cognitive Impairment After Major Noncardiac Surgery and Critical Illness. *Ann Surg*. 2017 Jun;265(6):1126-1133.
50. Han JH, Brummel NE, **Chandrasekhar R**, Wilson JE, Liu X, Vasilevskis EE, Girard TD, Carlo ME, Dittus RS, Schnelle JF, Ely EW. Exploring Delirium's Heterogeneity: Association Between Arousal Subtypes at Initial Presentation and 6-Month Mortality in Older Emergency Department Patients. *Am J Geriatr Psychiatry*. 2017 Mar;25(3):233-242.
51. Brummel NE, Bell SP, Girard TD, Pandharipande PP, Jackson JC, Morandi A, Thompson JL, **Chandrasekhar R**, Bernard GR, Dittus RS, Gill TM, Ely EW. Frailty and Subsequent Disability and Mortality among Patients with Critical Illness. *Am J Respir Crit Care Med*. 2017 Jul 1;196(1):64-72.
52. Han JH, Vasilevskis EE, **Chandrasekhar R**, Liu X, Schnelle JF, Dittus RS, Ely EW. Delirium in the Emergency Department and Its Extension into Hospitalization (DELINEATE) Study: Effect on 6-month Function and Cognition. *J Am Geriatr Soc*. 2017 Jun;65(6):1333-1338.
53. Smith HAB, Gangopadhyay M, Goben CM, Jacobowski NL, Chestnut MH, Thompson JL, **Chandrasekhar R**, Williams SR, Griffith K, Ely EW, Fuchs DC, Pandharipande PP. Delirium and Benzodiazepines Associated With Prolonged ICU Stay in Critically Ill Infants and Young Children. *Crit Care Med*. 2017 Sep;45(9):1427-1435.
54. Wilson JE, Carlson R, Duggan MC, Pandharipande P, Girard TD, Wang L, Thompson JL, **Chandrasekhar R**, Francis A, Nicolson SE, Dittus RS, Heckers S, Ely EW. Delirium and Catatonia in Critically Ill Patients: The Delirium and Catatonia Prospective Cohort Investigation. *Crit Care Med*. 2017 Nov;45(11):1837-1844.
55. Brummel NE, Boehm LM, Girard TD, Pandharipande PP, Jackson JC, Hughes CG, Patel MB, Han JH, Vasilevskis EE, Thompson JL, **Chandrasekhar R**, Bernard GR, Dittus RS, Ely EW. Subsyndromal Delirium and Institutionalization Among Patients With Critical Illness. *Am J Crit Care*. 2017 Nov;26(6):447-455.
56. **Chandrasekhar R**, Sloan C, Mitchel E, Ndi D, Alden N, Thomas A, Bennett NM, Kirley PD, Hill M, Anderson EJ, Lynfield R, Yousey-Hindes K, Bargsten M, Zansky SM, Lung K, Schroeder M, Monroe M, Eckel S, Markus TM, Cummings CN, Garg S, Schaffner W, Lindegren ML. Social determinants of influenza hospitalization in the United States. *Influenza Other Respir Viruses*. 2017 Nov;11(6):479-488.
57. Mirhoseini MF, Hamblin SE, Moore WP, Pouliot J, Jenkins JM, Wang W, **Chandrasekhar R**, Collier BR, Patel MB. Antioxidant supplementation and atrial arrhythmias in critically ill trauma patients. *J Surg Res*. 2018 Feb;222:10-16.
58. Girard TD, Thompson JL, Pandharipande PP, Brummel NE, Jackson JC, Patel MB, Hughes CG, **Chandrasekhar R**, Pun BT, Boehm LM, Elstad MR, Goodman RB, Bernard GR, Dittus RS, Ely EW. Clinical phenotypes of delirium during critical illness and severity of subsequent long-term cognitive impairment: a prospective cohort study. *Lancet Respir Med*. 2018 Mar;6(3):213-222.
59. Hughes CG, Patel MB, Brummel NE, Thompson JL, McNeil JB, Pandharipande PP, Jackson JC, **Chandrasekhar R**, Ware LB, Ely EW, Girard TD. Relationships between markers of neurologic and endothelial injury during critical illness and long-term cognitive impairment and disability. *Intensive Care Med*. 2018 Mar;44(3):345-355.
60. Hayhurst CJ, Jackson JC, Archer KR, Thompson JL, **Chandrasekhar R**, Hughes CG. Pain and Its Long-term Interference of Daily Life After Critical Illness. *Anesth Analg*. 2018 Sep;127(3):690-697.

61. Shinall MC, Ely EW, Karlekar M, Robbins SG, **Chandrasekhar R**, Martin SF. Psychometric Properties of the FACIT-Pal 14 Administered in an Outpatient Palliative Care Clinic. *Am J Hosp Palliat Care*. 2018 Oct;35(10):1292-1294.
62. Marra A, Pandharipande PP, Shotwell MS, **Chandrasekhar R**, Girard TD, Shintani AK, Peelen LM, Moons KGM, Dittus RS, Ely EW, Vasilevskis EE. Acute Brain Dysfunction: Development and Validation of a Daily Prediction Model. *Chest*. 2018 Aug;154(2):293-301.
63. Marra A, Pandharipande PP, Girard TD, Patel MB, Hughes CG, Jackson JC, Thompson JL, **Chandrasekhar R**, Ely EW, Brummel NE. Co-Occurrence of Post-Intensive Care Syndrome Problems Among 406 Survivors of Critical Illness. *Crit Care Med*. 2018 Sep;46(9):1393-1401
64. ** Girard TD, Exline MC, Carson SS, Hough CL, Rock P, Gong MN, Douglas IS, Malhotra A, Owens RL, Feinstein DJ, Khan B, Pisani MA, Hyzy RC, Schmidt GA, Schweickert WD, Hite RD, Bowton DL, Masica AL, Thompson JL, **Chandrasekhar R**, Pun BT, Strength C, Boehm LM, Jackson JC, Pandharipande PP, Brummel NE, Hughes CG, Patel MB, Stollings JL, Bernard GR, Dittus RS, Ely EW. Haloperidol and Ziprasidone for Treatment of Delirium in Critical Illness. *N Engl J Med*. 2018 Dec 27;379(26):2506-2516.
65. Vasilevskis EE, **Chandrasekhar R**, Holtze CH, Graves J, Speroff T, Girard TD, Patel MB, Hughes CG, Cao A, Pandharipande PP, Ely EW. The Cost of ICU Delirium and Coma in the Intensive Care Unit Patient. *Med Care*. 2018 Oct;56(10):890-897.
66. Han JH, Hayhurst CJ, **Chandrasekhar R**, Hughes CG, Vasilevskis EE, Wilson JE, Schnelle JF, Dittus RS, Ely EW. Delirium's Arousal Subtypes and Their Relationship with 6-Month Functional Status and Cognition. *Psychosomatics*. 2019 Jan - Feb;60(1):27-36.
67. Cirbus J, MacLulich AMJ, Noel C, Ely EW, **Chandrasekhar R**, Han JH. Delirium etiology subtypes and their effect on six-month function and cognition in older emergency department patients. *Int Psychogeriatr*. 2019 Feb;31(2):267-276. doi: 10.1017/S1041610218000777.
68. Evans CS, Self W, Ginde AA, **Chandrasekhar R**, Ely EW, Han JH. Vitamin D Deficiency and Long-Term Cognitive Impairment Among Older Adult Emergency Department Patients. *West J Emerg Med*. 2019 Oct 16;20(6):926-930.
69. Shinall MC Jr, Hoskins A, Hawkins AT, Bailey C, Brown A, Agarwal R, Duggan MC, Beskow LM, Periyakoil VS, Penson DF, Jarrett RT, **Chandrasekhar R**, Ely EW. A randomized trial of a specialist palliative care intervention for patients undergoing surgery for cancer: rationale and design of the Surgery for Cancer with Option of Palliative Care Expert (SCOPE) Trial. *Trials*. 2019 Dec 11;20(1):713.
70. Wilson JE, Duggan MC, **Chandrasekhar R**, Brummel NE, Dittus RS, Ely EW, Patel MB, Jackson JC. Deficits in Self-Reported Initiation Are Associated With Subsequent Disability in ICU Survivors. *Psychosomatics*. 2019 Jul - Aug;60(4):376-384.
71. Samuels DC, Hulgán T, Fessel JP, Billings FT 4th, Thompson JL, **Chandrasekhar R**, Girard TD. Mitochondrial DNA Haplogroups and Delirium During Sepsis. *Crit Care Med*. 2019 Aug;47(8):1065-1071.
72. Han JH, Chen A, Vasilevskis EE, Schnelle JF, Ely EW, **Chandrasekhar R**, Morrison RD, Ryan TP, Daniels JS, Sutherland JJ, Simmons SF. Supratherapeutic Psychotropic Drug Levels in the Emergency Department and Their Association with Delirium Duration: A Preliminary Study. *J Am Geriatr Soc*. 2019 Nov;67(11):2387-2392.
73. McNeil JB, Hughes CG, Girard T, Ware LB, Ely EW, **Chandrasekhar R**, Han JH. Plasma biomarkers of inflammation, coagulation, and brain injury as predictors of delirium duration in older hospitalized patients. *PLoS One*. 2019;14(12):e0226412.
74. Duggan MC, Morrell ME, **Chandrasekhar R**, Marra A, Frimpong K, Nair DR, Girard TD, Pandharipande PP, Ely EW, Jackson JC. A Brief Informant Screening Instrument for Dementia in the ICU: The Diagnostic Accuracy of the AD8 in Critically Ill Adults Suspected of Having Pre-Existing Dementia. *Dement Geriatr Cogn Disord*. 2019;48(5-6):241-249.
75. Hayhurst CJ, Patel MB, McNeil JB, Girard TD, Brummel NE, Thompson JL, **Chandrasekhar R**, Ware LB, Pandharipande PP, Ely EW, Hughes CG. Association of neuronal repair biomarkers with delirium among survivors of critical illness. *J Crit Care*. 2020 Apr;56:94-99.
76. **Chandrasekhar R**, Hughes CG, Pun BT, Orun OM, Ely EW, Pandharipande PP. Statistical analysis plan for the Maximizing the Efficacy of Sedation and Reducing Neurological Dysfunction and Mortality in Septic Patients with Acute Respiratory Failure trial. *Crit Care Resusc*. 2020 Mar;22(1):63-71.

77. Hayhurst CJ, Marra A, Han JH, Patel MB, Brummel NE, Thompson JL, Jackson JC, **Chandrasekhar R**, Ely EW, Pandharipande PP, Hughes CG. Association of Hypoactive and Hyperactive Delirium With Cognitive Function After Critical Illness. *Crit Care Med*. 2020 Jun;48(6):e480-e488.
78. Kaplan LJ, Kleinpell R, Maves RC, Doersam JK, **Raman R**, Ferraro DM. Critical Care Clinician Reports on Coronavirus Disease 2019: Results From a National Survey of 4,875 ICU Providers. *Crit Care Explor*. 2020 May;2(5):e0125.
79. Kleinpell R, Ferraro DM, Maves RC, Kane Gill SL, Branson R, Greenberg S, Doersam JK, **Raman R**, Kaplan LJ. Coronavirus Disease 2019 Pandemic Measures: Reports From a National Survey of 9,120 ICU Clinicians. *Crit Care Med*. 2020 Oct;48(10):e846-e855.
80. Brummel NE, Girard TD, Pandharipande PP, Thompson JL, Jarrett RT, **Raman R**, Hughes CG, Patel MB, Morandi A, Gill TM, Ely EW. Prevalence and Course of Frailty in Survivors of Critical Illness. *Crit Care Med*. 2020 Oct;48(10):1419-1426.
81. Haddad DN, Mart MF, Wang L, Lindsell CJ, **Raman R**, Nordness MF, Sharp KW, Pandharipande PP, Girard TD, Ely EW, Patel MB. Socioeconomic Factors and Intensive Care Unit-Related Cognitive Impairment. *Ann Surg*. 2020 Oct;272(4):596-602.
82. Sloan C, **Chandrasekhar R**, Mitchel E, Ndi D, Miller L, Thomas A, Bennett NM, Chai S, Spencer M, Eckel S, Spina N, Monroe M, Anderson EJ, Lynfield R, Yousey-Hindes K, Bargsten M, Zansky S, Lung K, Schroeder M, N Cummings C, Garg S, Schaffner W, Lindegren ML. Spatial and temporal clustering of patients hospitalized with laboratory-confirmed influenza in the United States. *Epidemics*. 2020 Jun;31:100387.
83. Lotspeich SC, Jarrett RT, Epstein RA, Shaffer AM, Gracey K, Cull MJ, **Raman R**. Incidence and neighborhood-level determinants of child welfare involvement. *Child Abuse Negl*. 2020 Nov;109:104767.
84. Nordness MF, Bipin Patel M, Erickson CR, Kiehl A, Jackson JC, **Raman R**, Pandharipande PP, Ely EW, Wilson JE. Depression predicts long-term cognitive impairment in survivors of critical illness. *J Trauma Acute Care Surg*. 2021 Jan 1;90(1):79-86.
85. Brummel NE, Hughes CG, Thompson JL, Jackson JC, Pandharipande P, McNeil JB, **Raman R**, Orun OM, Ware LB, Bernard GR, Ely EW, Girard TD. Inflammation and Coagulation during Critical Illness and Long-Term Cognitive Impairment and Disability. *Am J Respir Crit Care Med*. 2021 Mar 15;203(6):699-706.
86. (**Raman R**, Jarrett RT) *co-first authors*, Cull MJ, Gracey K, Shaffer AM, Epstein RA. Psychopharmaceutical Prescription Monitoring for Children in the Child Welfare System. *Psychiatr Serv*. 2021 Mar 1;72(3):295-301.
87. Pun BT, Badenes R, Heras La Calle G, Orun OM, Chen W, **Raman R**, Simpson BK, Wilson-Linville S, Hinojal Olmedillo B, Vallejo de la Cueva A, van der Jagt M, Navarro Casado R, Leal Sanz P, Orhun G, Ferrer Gómez C, Núñez Vázquez K, Piñeiro Otero P, Taccone FS, Gallego Curto E, Caricato A, Woien H, Lacave G, O'Neal HR Jr, Peterson SJ, Brummel NE, Girard TD, Ely EW, Pandharipande PP. Prevalence and risk factors for delirium in critically ill patients with COVID-19 (COVID-D): a multicentre cohort study. *Lancet Respir Med*. 2021 Mar;9(3):239-250.
88. Ketel C, Hedges JP, Smith JP, Hopkins LW, Pfieffer ML, Kyle E, **Raman R**, Pilon B. Suicide detection and treatment in a nurse-led, interprofessional primary care practice: A 2-year report of quality data. *Nurse Pract*. 2021 Apr 1;46(4):33-40.
89. Jackson HJ, Walters J, **Raman R**. Auricular Acupuncture to Facilitate Outpatient Opioid Weaning: A Randomized Pilot Study. *Med Acupunct*. 2021 Apr 1;33(2):153-158.
90. Hughes CG, Mailloux PT, Devlin JW, Swan JT, Sanders RD, Anzueto A, Jackson JC, Hoskins AS, Pun BT, Orun OM, **Raman R**, Stollings JL, Kiehl AL, Duprey MS, Bui LN, O'Neal HR Jr, Snyder A, Gropper MA, Guntupalli KK, Stashenko GJ, Patel MB, Brummel NE, Girard TD, Dittus RS, Bernard GR, Ely EW, Pandharipande PP. Dexmedetomidine or Propofol for Sedation in Mechanically Ventilated Adults with Sepsis. *N Engl J Med*. 2021 Apr 15;384(15):1424-1436.
91. Han JH, Ginde AA, Brown SM, Baughman A, Collar EM, Ely EW, Gong MN, Hope AA, Hou PC, Hough CL, Iwashyna TJ, Jackson JC, Khan A, Orun OM, Patel MB, **Raman R**, Rice TW, Ringwood N, Semler MW, Shapiro NI, Talmor DS, Self WH. Effect of Early High-Dose Vitamin D3 Repletion on Cognitive Outcomes in Critically Ill Adults. *Chest*. 2021 Sep;160(3):909-918.

92. **Raman R**, Brennan J, Ndi D, Sloan C, Markus TM, Schaffner W, Talbot HK. Marked Reduction of Socioeconomic and Racial Disparities in Invasive Pneumococcal Disease Associated With Conjugate Pneumococcal Vaccines. *J Infect Dis*. 2021 Apr 8;223(7):1250-1259.
93. **Raman R**, Chen W, Harhay MO, Thompson JL, Ely EW, Pandharipande PP, Patel MB. Dealing with missing delirium assessments in prospective clinical studies of the critically ill: a simulation study and reanalysis of two delirium studies. *BMC Med Res Methodol*. 2021 May 6;21(1):97.
94. Orun OM, Shinall MC Jr, Hoskins A, Morgan E, Karlekar M, Martin SF, Ely EW, **Raman R**. Statistical analysis plan for the Surgery for Cancer with Option of Palliative Care Expert (SCOPE) trial: a randomized controlled trial of a specialist palliative care intervention for patients undergoing surgery for cancer. *Trials*. 2021 Apr 29;22(1):314.
95. Mart MF, Girard TD, Thompson JL, Whitten-Vile H, **Raman R**, Pandharipande PP, Heyland DK, Ely EW, Brummel NE. Nutritional Risk at intensive care unit admission and outcomes in survivors of critical illness. *Clin Nutr*. 2021 Jun;40(6):3868-3874.
96. Canter MO, Tanguturi YC, Ellen Wilson J, Williams SR, Exum SA, Umrana HM, Betters KA, **Raman R**, Ely EW, Pandharipande PP, Fuchs DC, Smith HAB. Prospective Validation of the Preschool Confusion Assessment Method for the ICU to Screen for Delirium in Infants Less Than 6 Months Old. *Crit Care Med*. 2021 Oct 1;49(10): e902-e909.
97. TW Butler, K Hande, M Ryan, **R Raman**, MR McDowell, B Cones, HJ Jackson, M Cortez, BA Murphy. Cannabidiol: Knowledge, Beliefs, and Experiences of Patients With Cancer. 2021. *Clin J Oncol Nursing*; 25(4):405-412.
98. Morris MH, Barton M, Zane M, Hutson SP, **Raman R**, Heidel RE. A Nurse-Navigated, Postpartum Support Text Messaging Intervention: Satisfaction Among Primiparous Women. *J Perinat Neonatal Nurs*. 2021; 35(4):330-339.
99. Andrews PS, Thompson J, **Raman R**, Rick C, Kiehl A, Pandharipande P, Jackson JC, Taylor WD, Ely EW, Wilson JE. Delirium, depression, and long-term cognition. *Int Psychogeriatr*. 2021 Nov 12:1-6.
Moore G, Lutenbacher M, Waynick-Rogers P, Wilbeck J, Raman R, Schorn MN. Bridging Didactic Learning and the Complexity of Practice Through Clinical Immersion: Evaluating the Sexual Assault Nurse Examiner Trainee Experience. *J Forensic Nurs*. 2022 Jan-Mar 01;18(1):46-53.
100. Moore G, Lutenbacher M, Waynick-Rogers P, Wilbeck J, **Raman R**, Schorn MN. Bridging Didactic Learning and the Complexity of Practice Through Clinical Immersion: Evaluating the Sexual Assault Nurse Examiner Trainee Experience. *J Forensic Nurs*. 2022 Jan-Mar 01;18(1):46-53.
101. Grome HN, **Raman R**, Katz BD, Fill MM, Jones TF, Schaffner W, Dunn J. Disparities in COVID-19 Mortality Rates: Implications for Rural Health Policy and Preparedness. *Journal of Public Health Management and Practice: JPHMP*. 2022 Sep-Oct 01;28(5):478-485.
102. Mart MF, Thompson JL, Ely EW, Pandharipande PP, Patel MB, Wilson JE, Williams Roberson S, Birdrow CI, **Raman R**, Brummel NE. In-Hospital Depressed Level of Consciousness and Long-Term Functional Outcomes in ICU Survivors. *Crit Care Med*. 2022
103. Chor KH, Luo Z, Dworsky A, **Raman R**, Courtney ME, Epstein RA. Development and Validation of a Predictive Risk Model for Runaway among Youth in Child Welfare. *Children and Youth Services Review*. 2022 Oct 14:106689.
104. Wilson LD, Maiga AW, Lombardo S, Nordness MF, Haddad DN, Rakhit S, Smith LF, Rivera EL, Cook MR, Thompson JL, **Raman R**, Patel MB. Dynamic predictors of in-hospital and 3-year mortality after traumatic brain injury: A retrospective cohort study. *Am J Surg*. 2022 Oct 28:S0002-9610(22)00632-8.
105. Hughes CG, Boncyk CS, Fedele B, Pandharipande PP, Chen W, Patel MB, Brummel NE, Jackson JC, **Raman R**, Ely EW, Girard TD. Association between cholinesterase activity and critical illness brain dysfunction. *Crit Care*. 2022 Dec 6;26(1):377
106. **Raman R**, DesAutels SJ, Lauck AM, Scher AM, Walden RL, Kiehl AL, Collar EM, Ely EW, Pandharipande PP, Jackson JC. Instruments Assessing Cognitive Impairment in Survivors of Critical Illness and Reporting of Race Norms: A Systematic Review. *Crit Care Explor*. 2022 Dec 22;4(12):e0830
107. **Raman R**, Utts J, Cohen AI, Hayat MJ. Integrating Ethics into the Guidelines for Assessment and Instruction in Statistics Education (GAISE). 2023. *The American Statistician*, 77 (3);323-330.
108. Wilson LD, Maiga AW, Lombardo S, Nordness MF, Haddad DN, Rakhit S, Smith LF, Rivera EL, Cook MR, Thompson JL, **Raman R**, Patel MB. Prevalence and Risk Factors for Intensive Care Unit Delirium After Traumatic Brain Injury: A Retrospective Cohort Study. *Neurocrit Care*. 2023 Jan 31.

109. Joseph J, DesAutels SJ, Gracey K, Kronenberg M, Kuhn T, **Raman R**. Child and family outcomes of the Safe Babies Court Team—A scoping review. *Children and Youth Services Review*. 2023 Apr 5:106956.
110. Shinall MC Jr, Martin SF, Karlekar M, Hoskins A, Morgan E, Kiehl A, Bryant P, Orun OM, **Raman R**, Tillman BF, Hawkins AT, Brown AJ, Bailey CE, Idrees K, Chang SS, Smith JA Jr, Tan MCB, Magge D, Penson D, Ely EW. Effects of Specialist Palliative Care for Patients Undergoing Major Abdominal Surgery for Cancer: A Randomized Clinical Trial. *JAMA Surg*. 2023 May 10:e231396.
111. Wilson JE, Sealock J, Straub P, **Raman R**, Kipp AM, Dittus RS, Heckers S, Ely W, Davis LK. Exploring genetic risk for catatonia in a genome wide association study and polygenic risk score analysis. *Schizophr Res*. 2023 Jul 28:S0920-9964(23)00241-4. doi: 10.1016/j.schres.2023.07.015.
112. Han JH, Jackson JC, Orun OM, Brown SM, Casey JD, Clark L, Collins SP, Cordero K, Ginde AA, Gong MN, Hough CL, Iwashyna TJ, Kiehl AL, Lauck A, Leither LM, Lindsell CJ, Patel MB, **Raman R**, Rice TW, Ringwood NJ, Sheppard KL, Semler MW, Thompson BT, Ely EW, Self WH; National Heart, Lung, and Blood Institute PETAL Clinical Trials Network. Modifiable in-hospital factors for 12-month global cognition, post-traumatic stress disorder symptoms, and depression symptoms in adults hospitalized with COVID-19. *Influenza Other Respir Viruses*. 2023 Sep;17(9):e13197.
113. Stollings JL, Boncyk CS, Birdrow CI, Chen W, **Raman R**, Gupta DK, Roden DM, Rivera EL, Maiga AW, Rakhit S, Pandharipande PP, Ely EW, Girard TD, Patel MB. Antipsychotics and the QTc Interval During Delirium in the Intensive Care Unit: A Secondary Analysis of a Randomized Clinical Trial. *JAMA Network Open*. 2024 Jan 2;7(1):e2352034.
114. Thome J, Gracey K, Epstein RA, Cull MJ, **Raman R**. Child Maltreatment Reporting during COVID-19 in a Southern State in the United States. Accepted to Public Health Reports.
115. Thomas CM, **Raman R**, Schaffner W, Markus TM, Ndi D, Fill MA, Dunn JR, Talbot HK, Respiratory Syncytial Virus Hospitalizations Associated with Social Vulnerability by Census Tract: An Opportunity for Intervention? *Open Forum Infectious Diseases*, 2024; ofae184
116. Brummel NE, Hughes CG, McNeil JB, Pandharipande PP, Thompson JL, Orun OM, **Raman R**, Ware LB, Bernard GR, Harrison FE, Ely EW, Girard TD. Systemic inflammation and delirium during critical illness. *Intensive Care Med*. 2024 Apr 22.
117. Mart MF, Boehm LM, Kiehl AL, Gong MN, Malhotra A, Owens RL, Khan BA, Pisani MA, Schmidt GA, Hite RD, Exline MC, Carson SS, Hough CL, Rock P, Douglas IS, Feinstein DJ, Hyzy RC, Schweickert WD, Bowton DL, Masica A, Orun OM, **Raman R**, Pun BT, Strength C, Rolfsen ML, Pandharipande PP, Brummel NE, Hughes CG, Patel MB, Stollings JL, Ely EW, Jackson JC, Girard TD. Long-term outcomes after treatment of delirium during critical illness with antipsychotics (MIND-USA): a randomised, placebo-controlled, phase 3 trial. *Lancet Respir Med*. 2024 Apr 30:S2213-2600(24)00077-8.

***Won the 2016 Patrick G. Arbogast Award, given annually to recognize one paper published by department members.**

****Won the 2019 Patrick G. Arbogast Award, given annually to recognize one paper published by department members.**

Underline denotes co-author is a student/supervisee

Published Commentary

118. MH Hayn, A Hussain, AM Mansour, PE Andrews, P Carpentier, E Castle, P Dasgupta, P Rington, R Thomas, S Khan, A Kibel, H Kim, M Manoharan, M Menon, A Mottrie, D Ornstein, J Peabody, R Pruthi, JP Redorta, L Richstone, F Schanne, H Stricker, P Wiklund, **R Chandrasekhar**, GE Wilding, KA Guru. Reply from Authors re: Urs E. Studer, Laurence Collette. Robot-Assisted Cystectomy: Does It Meet Expectations? (2010). *European Urology*, 58(2).
119. JE Wilson, BC Norman, **R Chandrasekhar**. The attributable mortality of delirium in critically ill patients: prospective cohort study. (2014). *BMJ*; 349: g6652.
120. **R Chandrasekhar**. Socioeconomic Disparities and Health Outcomes. (2019). *AJRCCM*; 199(6):807-808.

121. **R Chandrasekhar**, EW Ely, MB Patel. (2019). Challenges With Postoperative Cognitive Impairment Research. JAMA Surgery. (*Invited Commentary*)
122. MJ Hayat, VS Staggs, TA Schwartz, M Higgins, A Azuero, C Budhathoki, **R Chandrasekhar**, P Cook, E Cramer, MS Dietrich, M Garnier-Villareal, A Hanlon, J He, J Hu, M Kim, M Mueller, JR Nolan, Y Perkhounkova, J Rothers, G Schluck, X Su, TN Templin, MT Weaver, Q Yang, S Ye. (2019). Moving Nursing beyond $p < .05$. International Journal of Nursing Studies.

External Invited Lectures/Seminars/Workshops

- | | |
|------------------|--|
| Feb 2011 | Cincinnati Children's Hospital Medical Center - <i>A new linear model-based approach for modeling the area under the outcome-time curve.</i> |
| Feb 2011 | Memorial Sloan-Kettering Cancer Center - <i>A new linear model-based approach for modeling the area under the outcome-time curve.</i> |
| Mar 2011 | University of Wisconsin-Milwaukee - <i>A new linear model-based approach for modeling the area under the outcome-time curve.</i> |
| May 2016 | Centers for Disease Control and Prevention (CDC) Influenza Hospitalization Surveillance Network (FluSurv-NET) - <i>Multi-level Regression Modeling in Influenza.</i> |
| May 2017 | Johns Hopkins Delirium Consortium - <i>Relating delirium or other longitudinal exposure variables to scalar long-term health outcomes: the role of functional data analysis.</i> |
| June 2017 | Statistical Workshop at American Delirium Society Meeting - <i>Relating delirium or other longitudinal exposure variables to scalar long-term health outcomes.</i> |
| Feb 2018 | Meharry Medical College, Nashville TN - <i>Misleading Statistics.</i> Lecture given as part of the Capstone Course. |
| June 2018 | Statistical Workshop at American Delirium Society Meeting - <i>Survivor and attrition bias- What can we do about it?</i> |
| July 2018 | Amritha University, India - <i>Statistical aspects of evaluating the performance of medical tests.</i> |
| Feb 2019 | Meharry Medical College, Nashville TN - <i>Ethics, Critical Thinking and Statistics.</i> Lecture given as part of the Capstone Course. |
| May 2019 | Centers for Disease Control and Prevention (CDC) - <i>Leveraging data sources to enhance and drive health disparities research.</i> |
| June 2019 | Statistical Workshop at American Delirium Society Meeting - <i>Pragmatic Trials in Delirium.</i> |
| Oct 2019 | Network for Investigation of Delirium: Unifying Scientists (NIDUS) Clinical Trials Webinar - <i>Statistical Issues in Trial Design.</i> |
| June 2020 | Federal Committee on Statistical Methodology Geospatial Interest Group (GIG) - <i>Geocoding and linkage of multiple sources of data to inform policy and programs in the child welfare system.</i> |
| Oct 2020 | American Statistical Association Government and Social Statistics Sections Practicum on Blended Data - <i>Prescription monitoring in the child welfare system by linking administrative, census and prescription data.</i> |
| June 2021 | Statistical Workshop at American Delirium Society Meeting - <i>Addressing missing daily assessments when computing a summary measure like delirium duration: Implications of various practical approaches.</i> |
| Oct 2021 | University of Alabama at Tuscaloosa - <i>Leveraging multiple sources of data to inform policy and programs in the child welfare system.</i> |
| Sept 2022 | Institute for Social Neuroscience, Melbourne, Australia - <i>Use of integrated administrative data to inform policy and programs.</i> |
| Feb 2023 | University of Sussex, England – <i>Informing policy development and implementation in the child welfare system using integrated administrative data: An example from the United States.</i> |
| Apr 2023 | University of Louisville, Kentucky - <i>Prescription monitoring in the child welfare system and its challenges.</i> |
| Oct 2023 | Bioethics Interest Group at The George Washington University - <i>Ethics and Public Health Webinar Series - Ethics and Statistics Education.</i> |

Internal Invited Lectures/Seminars

- Mar 2011** A new linear model-based approach for modeling the area under the outcome-time curve. Department of Biostatistics, Vanderbilt University School of Medicine.
- Feb 2012** Guest lecture - *BME 260 - Analysis of biomedical data*: Estimation of sample size and power. Department of Biomedical Engineering, Vanderbilt University School of Engineering.
- Feb 2012** Guest lecture - *BME 260 - Analysis of biomedical data*: Two sample testing. Department of Biomedical Engineering, Vanderbilt University School of Engineering.
- Aug 2013** A linear model-based approach for inferences about the area under the curve with repeated measures and values below the limit of detection. Vanderbilt Department of Biostatistics, Continuing Education Informal Workshop.
- Oct 2013** Guest lecture - *PUBH 5514 – Social and Behavioral Science for Public Health*: An 80 min lecture on data management. Vanderbilt University School of Medicine.
- Oct 2015** Socioeconomic disparities and influenza hospitalizations in TN. Health Policy Faculty Meeting, Vanderbilt University School of Medicine.
- Dec 2017** Prescriber profiling in the child welfare system and its challenges. Department of Biostatistics Seminar, Vanderbilt University School of Medicine.
- Mar 2019** Statistical methods to address psychotropic medication use in the child welfare system. Vanderbilt Kennedy Centre.
- Apr 2023** Instruments Assessing Cognitive Impairment in Survivors of Critical Illness and Reporting of Race Norms: A Systematic Review. Vanderbilt Center for Health Services Research.

Contributed Presentations

- Oct 2007** Xerogel Package. (Poster). UB Warren Perry Lecture, SUNY at Buffalo.
- Mar 2009** Estimating percentiles in dose-response curves for delayed responses using an adaptive compound urn design. (Poster). International Biometrics Society Eastern North American Region (ENAR) Annual Meeting.
- June 2010** A new linear model-based approach for modeling the area under the curve. (Poster). Southern Regional Council on Statistics (SRCOS) Summer Research Conference.
- Aug 2012** A linear model-based approach for inferences about the area under the curve with repeated measures and values below the limit of detection. Joint Statistical Meeting (JSM).
- Oct 2016** Social Determinants of Influenza Hospitalization in the United States. IDWeek Annual Meeting.

Tech Reports

123. C-X Ma, R Chandrasekhar, R Wu. Linkage Analysis for Misclassified Markers. <https://sphhp.buffalo.edu/content/dam/sphhp/biostatistics/Documents/techreports/UB-Biostatistics-TR1003.pdf>

Computational Packages

1. R Chandrasekhar, JC Miecznikowski, DP Gaile, V Govindaraju, FV Bright, KF Sellers. <https://sphhp.buffalo.edu/biostatistics/research-and-facilities/software/xerogel.html>

Outreach

1. CWS Webinar: Implicit Bias in Image Searches, M Johnston, D LaLonde, R Chandrasekhar, 2018. <https://cwstat.org/implicit-bias-in-image-searches/>
2. Mentor: Camp Talaria, Remote mentorship program. 2020