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CURRICULUM VITAE
SEAN FARRELL MONAGHAN

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Providence, RI
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EDUCATION

Undergraduate Boston College, Chestnut Hill, MA
BS, Biology, 8/1998-5/2002
Medical School UMDNJ-New Jersey Medical School, Newark, NJ
MD, 8/2003-5/2007

POSTGRADUATE TRAINING

Internship: Alpert Medical School of Brown University/Rhode Island Hospital,
Providence, RI, General Surgery, 6/2007-6/2008
Residency: Alpert Medical School of Brown University/Rhode Island Hospital,
Providence, RI, General Surgery, 7/2008-6/2014
Fellowship: Beth Israel Deaconess Medical Center, Boston, MA, Surgical Critical
Care, 7/2014-6/2015

POSTGRADUATE HONORS AND AWARDS

2006 Gold Humanism Honor Society, UMDNJ-New Jersey Medical School
2008 Outstanding Intern, Alpert Medical School of Brown University Department of Surgery
2009 Armand D. Versaci Research Scholar In Surgical Sciences, Alpert Medical School of
Brown University Department of Surgery
2011 Dorman Award for Best Clinical Research Paper, Alpert Medical School of Brown
University Department of Surgery
2011 American Association for the Surgery of Trauma (AAST) Resident Scholarship
2013 Alpha Omega Alpha Honor Society, Alpert Medical School of Brown University
2013 Dorman Award for Best Clinical Research Paper, Alpert Medical School of Brown
University Department of Surgery
2014 Haffenreffer Family House Staff Excellence Award, Rhode Island Hospital
2014 Russell E. White, MD Award of Professionalism and Ethics in Surgery, Alpert Medical
School of Brown University Department of Surgery
2014 Dr. Shoiab Shiekh Surgical Research Award, Alpert Medical School of Brown University
Department of Surgery
2014 American Association for the Surgery of Trauma (AAST) Resident/Fellow Scholarship
2017 Outstanding Teaching Faculty, Alpert Medical School of Brown University Department
of Surgery

PROFESSIONAL LICENSES AND BOARD CERTIFICATION

2005	USMLE Step 1
2006	USMLE Step 2 CK and CS
2011	USMLE Step 3
2007-2014	Rhode Island limited license CLP-01084
2007-present	Advanced Trauma Life Support Instructor
2014-present	Massachusetts License #258427
2014-2025	American Board of Surgery Certificate 059829
2015-present	Rhode Island License #CMD 15027
2015-2026	American Board of Surgery, Surgical Critical Care Certificate 003696

ACADEMIC APPOINTMENTS

2007-2014	House Officer in Surgery Alpert Medical School of Brown University
2015- 2016	Clinical Assistant Professor of Surgery Alpert Medical School of Brown University
2016-present	Assistant Professor of Surgery Alpert Medical School of Brown University

HOSPITAL APPOINTMENTS

2007-2014	Rhode Island Hospital Surgery Housestaff
2014-2015	Beth Israel Deaconess Medical Center Surgical Critical Care Fellow
2014-2015	Beth Israel Deaconess Medical Center Acute Care Surgery Attending
2015-present	Rhode Island Hospital Trauma, Surgical Critical Care Attending

OTHER APPOINTMENTS

Journal ad Hoc Reviewer

Annals of Surgery (2017)
PLOS One (2015, 2016, 2017, 2019)
Biomarkers in Medicine (2016)
Journal of Clinical Investigation (2018)
Journal of Leukocyte Biology (2019)
Scientific Reports (2019)
Critical Care Medicine (2019)

Grants ad Hoc Reviewer

National Science Centre, Poland (2015)
Barts Health NHS Trust, United Kingdom (2016)

HOSPITAL COMMITTEES

2007-2014	Department of Surgery Education Committee
2010-2014	Rhode Island Hospital Institutional Review Board
2013-2014	Rhode Island Hospital Epic Clinical Research Steering Committee
2015-present	Rhode Island Hospital Trauma Committee
2019-present	Lifespan Research IT Council
2019-present	Lifespan Analytics Steering Committee

UNIVERSITY COMMITTEES

2013	Department of Surgery Endocrine Surgeon Search Committee
2017-present	Brown Physicians Inc., Research Committee
2019-present	Advance-CTR Clinical Research Resources and Facilities KCA Steering Committee

MEMBERSHIP IN SOCIETIES

American College of Surgeons (Student Section)	2005- 2007
American College of Surgeons (Resident and Associate Society)	2007- 2017
Association of Academic Surgery (Member)	2010 - present
Shock Society	2015-present
American College of Surgeons – Rhode Island Chapter	2016-present
Surgical Infection Society	2016-present
American College of Surgeons (Fellow)	2017-present
American Association for the Surgery of Trauma	2018-present

PUBLICATIONS IN PEER REVIEWED JOURNALS

1. Deitch, EA, Livingston, DH, Lavery, RF, **Monaghan, SF**, Bongu, A, Macheido, GW. Hormonally Active Females Tolerate Shock Better Than Males: A Prospective Study of Over 4000 Trauma Patients. *Annals of Surgery*, 2007; 246 (3), 447-53. (PMID 17717448)
2. **Monaghan, SF**, Anjaria, D, Mohr, A, Livingston DH. Necrotizing Fasciitis and Sepsis Caused by *Aeromonas hydrophila* after Crush Injury of the Lower Extremity. *Surgical Infections*, 2008; 9(4), 459-67. (PMID 18687029)
3. **Monaghan, SF** and Swan, KE. Tube Thoracostomy: The Struggle to the "standard of care." *Annals of Thoracic Surgery*, 2008; 86(6), 2019-22. (PMID 19022041)
4. Heffernan, DS, Thakkar, RK, **Monaghan, SF**, Ravindran, R, Adams, CA, Kozloff, MS, Gregg, SC, Connolly, MD, Machan, JT, Cioffi, WG. Normal Presenting Vital Signs are Unreliable in Geriatric Blunt Trauma Victims. *Journal of Trauma*, 2010; 69(4):813-820. (PMID 20938267)
5. Thakkar, RK, Chung, CS, Chen, Y, **Monaghan, SF**, Lomas-Neira J, Heffernan, DS, Cioffi, WG, Ayala, A. Local Tissue Expression of the Cell Death Ligand, FasL, Plays a Central Role in the Development of Extra-Pulmonary Acute Lung Injury. *Shock*, 2011; 36(2), 138-143. (PMID 21451443)
6. Heffernan, DS, Vera, RM, **Monaghan, SF**, Thakkar, RK, Kozloff, MS, Connolly, MD, Gregg, SC, Harrington, DT, Adams, CA, Cioffi, WG. The Impact of Socio-Ethnic Factors on Outcomes Following Traumatic Brain Injury. *Journal of Trauma*, 2011; 70(3): 527-534. (PMID 21610339)

7. Shubin, NJ, **Monaghan, SF**, Ayala, A. Anti-inflammatory Mechanisms of Sepsis. *Contributions to Microbiology*, 2011, 17:108-124. (PMID 21659749)
8. **Monaghan, SF**, Heffernan, DS, Thakkar, RK, Machan, JT, Reinert, SE, Connolly, MD, Gregg, SC, Kozloff, MS, Adams, CA, Cioffi, WG. The Development of a Urinary Tract Infection is Associated with Increased Mortality in Trauma Patients. *Journal of Trauma*, 2011; 71(6): 1569-74. (PMID 21768897)
9. **Monaghan, SF**, Thakkar, RK, Heffernan DS, Huang, X, Chung, CS, Lomas-Neira, J, Cioffi, WG, Ayala, A. Mechanisms of Indirect Acute Lung Injury: A Novel Role for the Co-Inhibitory Receptor, Programmed Death-1 (PD-1). *Annals of Surgery*, 2012; 255(1):158-164. (PMID 21997806)
10. Heffernan, DS, **Monaghan, SF**, Thakkar, RK, Machan, JT, Cioffi, WG, Ayala, A. Failure to Normalize Lymphopenia Following Trauma is Associated with Increased Mortality, Independent of the Leukocyte Pattern. *Critical Care*, 2012; 16(1):R12. (PMID 22264310)
11. Shubin, NJ, Chung, CS, Heffernan, DS, Irwin, L, **Monaghan, SF**, Ayala, A. BTLA expression contributes to septic morbidity and mortality by inducing innate inflammatory cell dysfunction. *Journal of Leukocyte Biology*, 2012, 92(3), 593-603. (PMID 22459947)
12. **Monaghan, SF**, Thakkar, RK, Tran, M, Huang, X, Cioffi, WG, Ayala, A, Heffernan, DS. PD-1 expression as a marker for immune and physiological dysfunction in the critically ill surgical patient. *Shock*, 2012; 38(2), 117-22. (PMID 22683728)
13. **Monaghan, S.F.**, Blakely, A.M., Richardson, P.J., Miner, T.J., Cioffi, W.G., Harrington, D.T. The reflective statement: A new tool to assess resident learning. *Journal of Surgical Research*, 2012, 178(2), 1079-85. (PMID: 22883435)
14. **Monaghan, S.F.**, Adams, C.A., Stephen, A.H., Connolly, M.D., Gregg, S.C., Machan, J.T., Cioffi, W.G., Heffernan, D.S., Infections after trauma are associated with subsequent cardiac injury. *Journal of Trauma and Acute Care Surgery*, 2012; 73(5): 1079-85 (PMID 23117374)
15. Duron, V., **Monaghan, S.F.**, Connolly, M.D., Gregg, S.C., Stephen, A.H., Adams, C.A., Cioffi, W.G., Heffernan, D.S. Undiagnosed medical co-morbidities in the uninsured: A significant predictor of mortality following trauma. *Journal of Trauma and Acute Care Surgery*, 2012; 73(5): 1093-99 (PMID 23117376)
16. Thakkar, R.K., **Monaghan, S.F.**, Adams, CA, Stephen, A., Connolly, MD, Gregg, S, Cioffi, W.G., Heffernan, D.S. Empiric antibiotics pending bronchial alveolar lavage data in patients without pneumonia significantly alters the flora, but not the resistance profile, if a subsequent pneumonia develops. *Journal of Surgical Research*, 2013, 181(2), 323-28. (PMID:22906560)
17. Heffernan, D.S., **Monaghan, S.F.**, Thakkar, R.K., Tran, M.L., Chung, C.S., Gregory, S.H., Cioffi, W.G., Ayala, A. Inflammatory Mechanisms in Sepsis: Elevated Invariant

- Natural Killer T-Cell Numbers in Mouse and Their Modulatory Effect on Macrophage Function. *Shock*, 2013; 40(2), 122-128. (PMID 23807244)
18. Shubin, N.J., **Monaghan, S.F.**, Heffernan, D.S., Chung, C.S., Ayala, A. B and T lymphocyte attenuator expression on CD4+ T-cells associates with sepsis and subsequent infections in ICU patients. *Critical Care*, 2013; 17(6). (PMID 24289156)
 19. Heffernan, D.S., **Monaghan, S.F.**, Chung, C.S., Cioffi, W.G., Gravenstein, S., Ayala, A. A divergent response of innate regulatory T-cells to sepsis in humans: Circulating invariant natural killer T-cells are preserved. *Human Immunology*, 2014, 75(3), 277-282. (PMID 24269692)
 20. Huang, X., Chen, Y., Chung, C.S., Yuan, Z., **Monaghan, S.F.**, Wang, F., Ayala, A. Identification of B7-H1 as a Novel Mediator of the Innate Immune/Proinflammatory Response as well as a Possible Myeloid Cell Prognostic Biomarker in Sepsis. *Journal of Immunology*, 2014, 192(3), 1091-99. (PMID 24379123)
 21. Ottinger, M.E., **Monaghan, S.F.**, Gravenstein, S., Cioffi, W.G., Ayala, A., Heffernan, D.S. The Geriatric Cytokine Response to Trauma: Time to Consider a New Threshold. *Surgical Infections*, 2014, 15(6), 800-05. (PMID 25494395)
 22. Young, J.S., **Monaghan, S.F.**, Chung, C.S., Cioffi, W.G., Ayala, A., Heffernan, D.S., Divergent Invariant Natural Killer T-Cell Response to Sepsis of Abdominal vs. Non-Abdominal Origin in Human Beings. *Surgical Infections*, 2015, 16 (1), 29-35. (PMID 25761007)
 23. Lomas-Neir, J.L., Heffernan, D.S., Ayala, A., **Monaghan, S.F.** Blockade of endothelial growth factor, angiopoietin-2, reduces indices of ARDS and mortality in mice resulting from the dual-insult of hemorrhagic shock and sepsis. *Shock*, 2016, 45(2), 157-165. (PMID 26529660)
 24. Zimmerman, A.M., Marwaha, J., Nunez, H., Harrington, D., Heffernan, D., **Monaghan, S.**, Adams, C., Stephen, A. Preoperative Myocardial Injury as a Predictor of Mortality in Emergency General Surgery: An Analysis Using the American College of Surgeons NSQIP Database. *Journal of the American College of Surgeons*, 2016, 223(2), 381-386. (PMID 27163647)
 25. Wu Y., Chung C.S., Chen Y., **Monaghan S.F.**, Patel S., Huang X., Heffernan D.S., Ayala A. A Novel Role for Programmed Cell Death Receptor Ligand-1 (PD-L1) in Sepsis-Induced Intestinal Dysfunction. *Molecular medicine (Cambridge, Mass)*. 2016, 22. Epub 2016/10/27. (PMID: 27782294)
 26. **Monaghan S.F.**, Chung C.S., Chen Y., Lomas-Neira J., Fairbrother W.G., Heffernan D.S., Cioffi W.G., Ayala A. Soluble Programmed Cell Death Receptor-1 (sPD-1): A Potential Biomarker with Anti-inflammatory Properties in Human and Experimental Acute Respiratory Distress Syndrome (ARDS). *Journal of Translational Medicine*. 2016 (PMID 27835962)

27. Kao, M.J., Nunez, H., **Monaghan, S.F.**, Heffernan, D.S., Adams, C.A., Lueckel, S.N., Stephen, A.H. Trauma Patients Who Present in a Delayed Fashion: A Unique and Challenging Population. *Journal of Surgical Research*. 2017, Feb 208:204-210. (PMID 27993211)
28. Ottinger M.E., **Monaghan S.F.**, Gregg S.C., Stephen A.H., Connolly M.D., Harrington D.T., Adams C.A. Jr, Cioffi W.G., Heffernan D.S. Trauma morning report is the ideal environment to teach and evaluate resident communication and sign-outs in the 80 hour work week. *Injury*. 2017 May 1(PubMed PMID: 28506455.)
29. Dickinson C.M., Karlin D.R., Nunez H.R., Cao S.A., Heffernan D.S., **Monaghan S.F.**, Kheirbek T., Adams C.A., Stephen A.H. Do Patients with Pre-Existing Psychiatric Illness Have an Increased Risk of Infection after Injury? *Surg Infect (Larchmt)*. 2017 Jul;18(5):545-549 (PMID: 28353417.)
30. Heffernan D.S., **Monaghan S.F.**, Ayala A. Lymphocyte integrin expression differences between SIRS and sepsis patients. *Irish journal of medical science*. 2017. Nov 186(4) 981-987. (PMID: 27796667)
31. Fallon E.A., Biron-Girard B.M., Chung C.S., Lomas-Neira J., Heffernan D.S., **Monaghan S.F.**, Ayala A. A novel role for coinhibitory receptors/checkpoint proteins in the immunopathology of sepsis. *J Leukoc Biol*. 2018 Feb 2. (PMID: 29393983.)
32. Rhine C.L., Cygan K.J., Soemedi R., Maguire S., Murray M.F., **Monaghan S.F.**, Fairbrother W.G. Hereditary cancer genes are highly susceptible to splicing mutations. *PLoS Genet*. 2018 Mar 5;14 (PMID: 29505604.)
33. Lueckel, S.N., Kosar, C.M., Teno, J.M., **Monaghan, S.F.**, Heffernan, D.S., Cioffi, W.G., Thomas, K.S. Outcomes in nursing home patients with traumatic brain injury. *Surgery*. 2018 May 9 (PMID: 29751966)
34. Banerjee, D., **Monaghan, S.**, Zhai, R., Walsh, R., Palmisciano, A., Phillips, G.S., Opal, S., Levy, M.M. Soluble programmed cell death protein-1 and programmed cell death ligand-1 in sepsis. *Crit Care*. 2018 June 7; 22(1): 146 (PMID 29875013)
35. **Monaghan, S.F.**, Banerjee, D., Chung, C.S., Lomas-Neira, J., Cygan, K.J., Rhine, C.L., Fairbrother, W.G., Heffernan, D.S., Levy, M.M., Cioffi, W.G., Ayala, A. Changes in the process of alternative RNA splicing results in soluble B and T lymphocyte attenuator with biological and clinical implications in critical illness. *Molecular Medicine*. 2018, 24:32 (PMID 30134817)
36. Stephen, AH, Shah, M, Sim, JT, Soipe, A, Lueckel, SN, Kheirbek, T, Heffernan, DS, **Monaghan, SF**, Adams, CA, Jr. Dismal outcomes following damage control laparotomy in injured older adults: a cohort study. *Am J Surg*. 2019, Jul 218(1) 82-86 (PMID 30502874)
37. Lomas-Neira, J.L., **Monaghan, S.F.**, Huang, X., Fallon, E.A., Chung, C.S., Ayala, A. Novel role for PD-1: PD-L 1 as mediator of neutrophil:endothelial interactions in

- pathogenesis of indirect ARDS in mice. *Front. Immunol.* 2018 Dec 20;9 (PMID 30619639)
38. Wakeley, M.E., Shubin, N.J., **Monaghan, S.F.**, Gray, C.C., Ayala, A., Heffernan, D.S. Herpes Virus Entry Mediator (HVEM): A Novel Potential Mediator of Trauma-Induced Immunosuppression. *J Surg Res* 2019, Sept 12, 245:610-618 (PMID 31522034)
 39. Benoit E., Stephen A.H., **Monaghan S.F.**, Lueckel S.N., Adams C.A., Jr. Geriatric Trauma. *Rhode Island medical journal* (2013). 2019;102(8):19-22. (PMID 31575094)
 40. Connolly M.D., **Monaghan S.F.**, Heffernan D., Lueckel S.N., Adams C.A., Jr. Practice Makes Perfect: The Evolution of Blunt Chest Trauma. *Rhode Island medical journal* (2013). 2019;102(8):27-9. (PMID 31575096)
 41. Kheirbek T., **Monaghan S.F.**, Benoit E., Lueckel S.N., Adams C.A., Jr. Advances in the Management of Bleeding Trauma Patients. *Rhode Island medical journal* (2013). 2019;102(8):30-3. (PMID 31575097)
 42. Lueckel S.N., Stephen A.H., **Monaghan S.F.**, Binder W., Adams C.A., Jr. Predicting Outcomes in Acute Traumatic Brain Injury (TBI). *Rhode Island medical journal* (2013). 2019;102(8):34-6. (PMID 31575098)
 43. Stephen A.H., **Monaghan S.F.**, Lueckel S.N., Adams C.A., Jr. Anticoagulation and Trauma. *Rhode Island medical journal* (2013). 2019;102(8):23-6. (PMID 31575095)
 44. Hall BM, Geraci TC, Machan JT, Milman S, Adams CA, Cioffi W, Ng T, **Monaghan S.** Lack of Lymphocyte Recovery After Esophagectomy Predicts Overall and Recurrence-Free Survival. *J Surg Res.* 2019 Oct 29 [Epub ahead of print] (PMID: 31676146)
 45. Wakeley ME, Gray CC, **Monaghan SF**, Heffernan DS, Ayala A. Check Point Inhibitors and Their Role in Immunosuppression in Sepsis. *Crit Care Clin.* 2020 Jan;36(1):69-88. Epub 2019 Oct 21 (PMID: 31733683)
 46. Fredericks, AM, Wang, LJ, Fairbrother, WG, Ayala, A, **Monaghan, SF.** Alternative RNA Splicing and Alternative Transcription Start/End in Acute Respiratory Distress Syndrome. *Intensive Care Medicine.* 2020. (PMID: 32077999).

ABSTRACTS

1. Monaghan, S., Lavery, R.F., Walling, P., Yonclas, P., Livingston, D.H.: Early Introduction of Traumatic Brain Injury Rehabilitation Shortens Time to Arousal. Poster presented at the 64th Annual Meeting of the American Association for the Surgery of Trauma, Atlanta, GA, September 22-24, 2005.
2. Monaghan, S.F., Mohr, A.M., Anjaria, D., Livingston, D.H. Necrotizing Fasciitis and Sepsis due to *Aeromonas Hydrophila* after Crush Injury to Lower Extremity. Oral presentation as part of the 2007 Western Trauma Association Meeting, Steamboat Springs, CO, February 25-March 2, 2007.

3. Deitch, E.A., Livingston, D.H., Lavery, R.F., Monaghan, S.F., Bongu, A., Macheido, G.W. Hormonally Active Females Tolerate Shock Better Than Males: A Prospective Study of Over 4000 Trauma Patients. Oral presentation as part of the 127th Annual Meeting of the American Surgical Association, Colorado Springs, CO, April 26-28, 2007.
4. Monaghan, S.F., Heffernan, D.S., Adams, CA, Cioffi, W.G. Tracheostomy in the geriatric trauma patient – age alone should not be a deterrent. Oral presentation as part of the 5th Annual Academic Surgical Congress, San Antonio, TX, February 3-5, 2010.
5. Worth, P.J., Heffernan, D.S., Monaghan, S.F., Adams, CA, Cioffi, W.G. Leukopenia (WCC < 4) Rather than Leukocytosis (WCC > 14) Within 48 Hours of Admission Has a Greater Impact on Mortality Following Trauma; An Analysis of 2,467 Patients. Oral presentation as part of the 5th Annual Academic Surgical Congress, San Antonio, TX, February 3-5, 2010.
6. Stephen, A.H., Heffernan, D.S., Monaghan, S.F., Adams, CA, Cioffi, W.G. The Presence, but Not the Degree of Systemic Inflammatory Response Syndrome (SIRS) in Elderly Trauma Patients Is Predictive of Mortality. Oral presentation as part of the 5th Annual Academic Surgical Congress, San Antonio, TX, February 3-5, 2010.
7. Monaghan, S.F., Thakkar, R., Huang, X., Cioffi, W.G., Ayala, A., Heffernan, D.S. The development of secondary pneumonia induces differential pulmonary expression of ‘soluble isoforms’ of the novel inhibitory receptor PD-1 and its ligand, PD-L1. Oral & Poster presentations as a part of the 8th annual congress on Trauma, Shock, Inflammation & Sepsis (TSIS 2010) in Munich, Germany, March 11th, 2010.
8. Monaghan, S.F., Heffernan, D.S., Thakkar, R.K., Reinert, SE, Machan, JT, Gregg, S, Kozloff, MS, Connolly, MD, Adams, CA, Cioffi, W.G. Urinary tract infections significantly worsen outcomes in trauma patients: an analysis of 8,842 patients. Oral presentation as a part of the 30th annual meeting of the Surgical Infection Society, Las Vegas, NV, April 18th, 2010.
9. Thakkar, R.K., Monaghan, S.F., Heffernan, D.S., Adams, CA, Connolly, MD, Gregg, S, Kozloff, MS, Cioffi, W.G. Empiric Antibiotics pending BAL results in patients without pneumonia significantly alters the flora but not the resistance profile if a subsequent pneumonia develops. Oral presentation as a part of the 30th annual meeting of the Surgical Infection Society, Las Vegas, NV, April 19th, 2010.
10. Heffernan, D.S., Monaghan, S.F., Thakkar, R., Machan, J.T., Ayala, A., Cioffi, W.G. Failure to normalize lymphocyte reduction following trauma is associated with increased mortality, independent of leukocyte pattern. Oral presentation as a part of the 30th annual meeting of the Surgical Infection Society, Las Vegas, NV, April 19th, 2010.
11. Monaghan, S.F., Thakkar, R., Tran, M., Huang, X., Cioffi, W.G., Ayala, A., Heffernan, D.S. Can we find better markers for immune and physiological dysfunction in the critically ill? The case for PD-1. Poster presentation as a part of the 30th annual meeting of the Surgical Infection Society, Las Vegas, NV, April 19th, 2010.

12. Lomas-Neira, J., Thakkar, R., Monaghan, S.F., Carter, N., Ayala, A., Heffernan, D.S. Is angiopoietin-2 elevated in trauma patients with extra-pulmonary ALI/ARDS? Poster presentation as a part of the 30th annual meeting of the Surgical Infection Society, Las Vegas, NV, April 19th, 2010.
13. Kochar, A., Heffernan, D.S., Thakkar, R.K., Monaghan, S.F., Connolly, M.D., Kozloff, M.S., Gregg, S.C., Adams, C.A., Cioffi, W.G. Cumulative 1 year radiation exposure in geriatric trauma population. Poster presentation as part of the 69th Annual Meeting of the American Association for the Surgery of Trauma, Boston, MA, September 22-25, 2010.
14. Carter, N.H., Monaghan, S.F., Heffernan, D.S., Kozloff, M.S., Gregg, S.C., Connolly, M.D., Adams, C.A., Cioffi, W.G. Adrenal Insufficiency in the Elderly Trauma Patient. Poster presentation as part of the 69th Annual Meeting of the American Association for the Surgery of Trauma, Boston, MA, September 22-25, 2010.
15. Thakkar, R., Chen, Y., Chung, C.S., Monaghan, S.F., Cioffi, W.G., Ayala, A. Local Tissue Expression of the Cell Death Ligand, FasL, Plays a Central Role in the Development of Acute Lung Injury. Oral presentation in 'Forum Session: Critical Care II', as a part of the Forum on Fundamental Surgical Problems of the American College of Surgeons (ACS) at the 96th Annual Clinical Congress in Washington, DC, October 6, 2010.
16. Monaghan, S.F., Thakkar, R., Chung, C.S., Chen, Y., Huang, X, Heffernan, D.S., Cioffi, W.G., Ayala, A. Lack of Programmed Cell Death Receptor (PD)-1 leads to improved survival in a murine model of indirect acute lung injury. Oral presentation in 'Forum Session: Critical Care III', as a part of the Forum on Fundamental Surgical Problems of the American College of Surgeons (ACS) at the 96th Annual Clinical Congress in Washington, DC, October 7, 2010.
17. Monaghan, S.F., Thakkar, R.K, Tran, M.L., Ayala, A., Cioffi, W.G., Heffernan, D.S. Norepinephrine Administration In Patients For Septic Shock Induces Th2 Cytokine Expression In Blood. Oral presentation as part of the 6th Annual Academic Surgical Congress, Huntington Beach, CA, February 1-3, 2011.
18. Heffernan, D.S, Monaghan, S.F. Thakkar, R.K, Tran, M.L., Cioffi, W.G., Ayala, A. Hemorrhage Primes Invariant Natural Killer T-cells In Both Mice And Humans. Oral presentation as part of the 6th Annual Academic Surgical Congress, Huntington Beach, CA, February 1-3, 2011.
19. Worth, P.J., Monaghan, S.F., Thakkar, R.K, Tran, M.L., Ayala, A., Cioffi, W.G., Heffernan, D.S. Compartmentalized Lymphocyte Response To Abdominal Versus Non-abdominal Sources Of Sepsis In Humans. Oral presentation as part of the 6th Annual Academic Surgical Congress, Huntington Beach, CA, February 1-3, 2011.
20. Thomay, A.A., Monaghan, S.F., Heffernan, D.S., Cioffi, W.G., Adams, C.A. Very Tight Glucose Control In The ICU Leads To Increased Adverse Cardiac Events. Oral presentation as part of the 6th Annual Academic Surgical Congress, Huntington Beach, CA, February 1-3, 2011.

21. Gregg, Z.A., Monaghan, S.F., Thakkar, R.K., Chung, C., Machan, J.T., Ayala, A. Cioffi, W.G., Heffernan, D.S. Neutrophil Percentage Can Predict ARDS in the Critically Ill. Oral presentation as part of the 6th Annual Academic Surgical Congress, Huntington Beach, CA, February 1-3, 2011.
22. Monaghan, S.F., Blakely, A.M., Richardson, P.J., Miner, T.J., Cioffi, W.G., Harrington, D.T. The Reflective Statement: A New Tool to Assess Resident Learning. Oral presentation as part of Surgical Education Week 2011, Boston, MA, March 24-26, 2011.
23. Heffernan, D.S., Monaghan, S.F., Gregg, Z.A., Connolly, M.D., Gregg, S.C., Adams, C.A., Cioffi, W.G. The Chasm Between CDC Diagnosis and Bronchioalveolar Lavage Diagnosis of VAP May Affect Payments for Critically Ill Trauma Patients. Oral presentation as part of the 31st annual meeting of the Surgical Infection Society, Palm Beach, FL, May 11-14, 2011.
24. Gregg, Z.A., Heffernan, D.S., Monaghan, S.F., Connolly, M.D., Gregg, S.C., Kozloff, M.S., Adams, C.A., Cioffi, W.G. Nasal MRSA Predicts Ventilator Associated Pneumonia and Microbiology. Oral presentation as part of the 31st annual meeting of the Surgical Infection Society, Palm Beach, FL, May 11-14, 2011.
25. Monaghan, S.F., Heffernan, D.S., Machan, J.T., Harrington, D.T., Adams, C.A., Cioffi, W.G. Low Phosphorus is Predictive of the Development of Infections after Surgery: A Study of Humans to Prove Murine Data. Oral presentation as part of the 31st annual meeting of the Surgical Infection Society, Palm Beach, FL, May 11-14, 2011.
26. Shubin, N.J., Monaghan, S.F., Irwin, L.R., Heffernan, D.S., Chung, C.S., Ayala, A. BTLA Expression contributes to Sepsis Progression by Globally Suppressing Leukocyte Activation and Growth. Poster presentation as part of the 34th Annual Conference on Shock, Norfolk, VA, June 12, 2011.
27. Lomas-Neira, J., Monaghan, S.F., Chen, Y., Ayala, A. Angiopoietin-2, An Endothelial Growth Factor, Plays a Central Role in Mediating the Mortality from Shock/Sepsis in Mice. Poster presentation as part of the 34th Annual Conference on Shock, Norfolk, VA, June 13, 2011.
28. Heffernan, D.S., Monaghan, S.F., Connolly, M.D., Gregg, S., Machan, J.T., Adams, C.A., Cioffi, W.G. Infections after trauma are associated with subsequent cardiac injury. Oral presentation at the 70th Annual Meeting of the American Association for the Surgery of Trauma, Chicago, IL, September 14-17, 2011.
29. Duron, V., Heffernan, D.S., Monaghan, S.F., Connolly, M.D., Gregg, S., Machan, J.T., Adams, C.A., Cioffi, W.G. Undiagnosed medical co-morbidities in the uninsured: A significant predictor of mortality following trauma. Oral presentation at the 70th Annual Meeting of the American Association for the Surgery of Trauma, Chicago, IL, September 14-17, 2011.
30. Heffernan, D.S., Monaghan, S.F., Connolly, M.D., Gregg, S., Machan, J.T., Adams, C.A., Cioffi, W.G. Racial discrepancies in leukocyte response to trauma. Poster

- presentation at the 70th Annual Meeting of the American Association for the Surgery of Trauma, Chicago, IL, September 14-17, 2011.
31. Ottinger, M.E., Heffernan, D.S., Monaghan, S.F., Steven, A., Gregg, S.C, Connolly, M.D., Harrington, D.T., Adams, C.A., Cioffi, W.G. Trauma Morning Report is the Ideal Environment to Teach and Evaluate Resident Communication and Hand-Offs in the 80-Hour Work Week. Oral presentation at the 92nd Annual Meeting of the New England Surgical Society, Bretton Woods, NH, September 23-25, 2011.
 32. Heffernan, D.S., Steubing, E., Monaghan, S.F., Connolly, M.D., Gregg, S.C, Steven, A., Adams, C.A., Cioffi, W.G. Repair of Facial Fractures – An Age or Socioeconomic Bias? Poster presentation at the 92nd Annual Meeting of the New England Surgical Society, Bretton Woods, NH, September 23-25, 2011.
 33. Herron, T., Heffernan, D.S., Monaghan, S.F., Connolly, M.D., Gregg, S.C, Steven, A., Adams, C.A., Cioffi, W.G. Timing of Presentation and the Impact of Timing Upon Mortality of Critically Injured Geriatric Trauma Patients. Poster presentation at the 92nd Annual Meeting of the New England Surgical Society, Bretton Woods, NH, September 23-25, 2011.
 34. Monaghan, S.F., Thakkar, R., Chung, C.S., Chen, Y., Heffernan, D.S., Cioffi, W.G., Ayala, A. Novel Anti-inflammatory Mechanism in Critically Ill: Soluble Programmed Cell Death Receptor-1 (sPD-1). Oral presentation in 'Forum Session: Critical Care II', as a part of the Forum on Fundamental Surgical Problems of the American College of Surgeons (ACS) at the 97th Annual Clinical Congress in San Francisco, CA, October 26, 2011.
 35. Heffernan, D. S., Monaghan, S. F., Tran, M. L., Cioffi, W. G., and Ayala, A. PD-1 deficiency affects invariant natural killer T-cell exodus, not apoptosis, in response to peritonitis. Oral presentation as part of the 7th Annual Academic Surgical Congress, Las Vegas, NV, February 14-16, 2012.
 36. Heffernan, D. S., Monaghan, S. F., Shubin, N., Irwin, L.R., Cioffi, W. G., and Ayala, A. BTLA expression is increased on circulating CD4⁺ T-cells in trauma patients: A potential mechanism for trauma induced immune suppression. Oral presentation as part of the 7th Annual Academic Surgical Congress, Las Vegas, NV, February 14-16, 2012.
 37. DeBusk, G., Stephen, A., Monaghan, S., Connolly, M., Gregg, S., Adams, C., Cioffi, W., Heffernan, D. Re-defining the clinical pulmonary infection score (CPIS) for trauma patients. Oral presentation as part of the 32nd annual meeting of the Surgical Infection Society, Dallas, TX, April 18-21, 2012.
 38. Ottinger, M., Monaghan, S., Gravenstein, S., Cioffi, W., Ayala, A., Heffernan, D. A dampened inflammatory response in critically ill geriatric patients is essential to survival. Oral presentation as part of the 32nd annual meeting of the Surgical Infection Society, Dallas, TX, April 18-21, 2012.
 39. Stephen, A., Connolly, M., Adams, C., Monaghan, S., Cioffi, W., Gregg, S., Heffernan, D. The differing microbiologic profile of ventilator associated pneumonia (VAP) in

- geriatric versus young trauma patients. Oral presentation as part of the 32nd annual meeting of the Surgical Infection Society, Dallas, TX, April 18-21, 2012.
40. Heffernan, D., Monaghan, S., Chung, C.S., Cioffi, W., Gravenstein, S., Ayala, A. The invariant natural killer T-cell (iNKT) response is enhanced in critically ill septic geriatric patients. Oral presentation as part of the 32nd annual meeting of the Surgical Infection Society, Dallas, TX, April 18-21, 2012.
 41. Herron, T., Monaghan, S., Gravenstein, S., Cioffi, W., Ayala, A., Heffernan, D. The association between inflammatory and hemodynamic response in geriatric trauma patients. Poster presentation as part of the 32nd annual meeting of the Surgical Infection Society, Dallas, TX, April 18-21, 2012.
 42. Fox, E.D., Monaghan, S.F., Chamberlain, C.J., Machan, J.T., Cioffi, W.G., Gravenstein, S., Ayala, A., Heffernan, D.S. Early neutrophilia is predictive of higher mortality in moderate to severely injured geriatric trauma patients. Poster presentation at the 35th Annual Conference of Shock, Miami, FL, June 9-13, 2012.
 43. Heffernan, D.S., Monaghan, S.F., Fox, E.D., Kettenmann M., Machan, J.T., Gravenstein, S., Cioffi, W.G., Ayala, A., Geriatric patients are extremely vulnerable to trauma induced lymphopenia. Poster presentation at the 35th Annual Conference of Shock, Miami, FL, June 9-13, 2012.
 44. Shubin, N., Monaghan, S.F., Irwin, L., Chung, C., Ayala, A., Heffernan, D.S., BTLA expression is altered on myeloid and granulocyte but not lymphoid blood populations of SIRS and septic ICU patients with age. Poster presentation at the 35th Annual Conference of Shock, Miami, FL, June 9-13, 2012.
 45. Heffernan, D.S., Monaghan, S.F., Chung, C., Tran, M., Gravenstein, S., Cioffi, W.G., Ayala, A., Gamma-Delta T-Cells Are Differentially Activated in Geriatric Septic Patients. Poster presentation at the 93rd Annual Meeting of the New England Surgical Society, Rockport, ME, September 21-23, 2012.
 46. Kettenmann, M.L., Shubin, N.J., Monaghan, S.F., Irwin, L.R., Cioffi, W.G., Ayala, A., Heffernan, D.S., Elevated Circulating HVEM+ Lymphocytes as a Potential Marker of Septic Immune Dysfunction in Trauma and Critically Ill Patients. Poster presentation at the 98th Annual Clinical Congress of the American College of Surgeons, Chicago, IL, October 1, 2012.
 47. Heffernan, D.S., Monaghan, S.F., Gravenstein, S., Stephen, A.H., Gregg, S.C., Connolly, M.D., Adams, C.A., Cioffi, W.G. The Effect of Alcohol and Drug Use on the Outcome of Geriatric Trauma Patients. Poster presentation at the 98th Annual Clinical Congress of the American College of Surgeons, Chicago, IL, October 1, 2012.
 48. Stephen, A.H., Monaghan, S.F., Lueckel, S., Gregg, S., Connolly, M., Adams, C., Cioffi, W.G., Heffernan, D.S. The Limited Correlation Between Chest X-ray Findings, Location of Infiltrates and Results of Bilateral Bronchoalveolar Lavage. Oral presentation as part of the 33rd Annual meeting of the Surgical Infection Society, Las Vegas, NV, April 12-15, 2013.

49. Young, J.S., Monaghan, S.F., Chung, C., Cioffi, W.G., Ayala, A., Heffernan, D.S., Divergent Invariant Natural Killer T-cell (iNKT-cell) Response to Abdominal Versus Non-abdominal Sepsis in Humans. Oral presentation as part of the 33nd Annual meeting of the Surgical Infection Society, Las Vegas, NV, April 12-15, 2013.
50. Huang, X., Chen, Y., Chung, C., Monaghan, S.F., Ayala, A. Upregulation of B7-H1 on Neutrophils, Along with Elevated Cytokines, May Be Biomarkers of Septic Progression/Morbidity. Poster presentation as part of the 36th Annual Conference of Shock, San Diego, CA, June 1-4, 2013.
51. Lomas-Neira, J., Monaghan, S.F., Huang, X., Chen, Y., Ayala, A. Programmed Cell Death Receptor Ligand-1 (PD-L1): A Role in Angiopoietin-Mediated Endothelial Cell Activation in the Development of Acute Lung Injury. Poster presentation as part of the 36th Annual Conference of Shock, San Diego, CA, June 1-4, 2013.
52. Monaghan, S.F., Adams, C.A., Stephen, A.H., Connolly, M.D., Gregg, S.C., Lueckel, S.N., Machan, J., Cioffi, W.G., Heffernan, D.S. Blood Transfusions in Young Women Result in Excess Mortality Following Trauma. Oral presentation as part of the 72nd Annual Meeting of the American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery, San Francisco, CA, September 18-21, 2013.
53. Kettenmann, M.L., Heffernan, D.S., Monaghan, S.F., Shubin, N.J., Ayala, A., Cioffi, W.G., Irwin, L.R. HVEM Expression in Critically Ill Trauma Patients. Oral presentation as part of the 99th Annual Clinical Congress of the American College of Surgeons, Washington, DC, October 9, 2013.
54. Young, W.A., Young, J.S., Monaghan, S.F., Chung, C.S., Cioffi, W.G., Ayala, A., Heffernan, D.S. SIRS following trauma induces loss of both CD3+ and gamma-delta T lymphocytes, but clinical resolution is associated with differential recovery of lymphocyte populations. Presentation as part of the 9th Annual Academic Surgical Congress, San Diego, CA, February 4-6, 2014.
55. Lomas-Neira, J., Huang, X., Chen, Y., Monaghan, S.F., Ayala, A. Neutrophil expression of Programmed Death Ligand (PD-L1) is potentiated following migration into lung tissue. Presentation as part of the Shock Society Meeting, Charlotte, NC, June 2014.
56. Monaghan, S.F., Adams, C.A., Connolly, M.D., Stephen, A.H., Lueckel, S.N., Harrington, D.T., Cioffi, W.G., Heffernan, D.S. A geriatric specific rib fracture protocol significantly improves mortality. Oral presentation as part of the 73rd Annual Meeting of the American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery, Philadelphia, PA, September 10-13, 2014.
57. Heffernan, D.S., Monaghan, S.F., Stephen, A.S., Connolly, M.D., Lueckel, S.N., Harrington, D.T., Adams, C.A., Reinhert, S., Cioffi, W.G. The impact of insurance status, diabetes and undiagnosed diabetes on outcomes among trauma patients. Poster presentation as part of the 73rd Annual Meeting of the American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery, Philadelphia, PA, September 10-13, 2014.

58. Mittel, A., Hale, A., Nizamuddin, J., Monaghan, S., Shaefi, S. A Novel Case of Fatal Toxic Shock Syndrome and Capillary Leak Syndrome from Clostridium Endometritis. Poster presentation as part of the Anesthesiology 2015 Annual Meeting, San Diego, CA, October 24-28, 2015.
59. Kao, M. J., Nunez, H., Stephen, A. H., Monaghan, S.F., Lueckel, S.N., Heffernan, D.S., Adams, C.A., Cioffi, W.G. Trauma Patients Who Present in a Delayed Fashion: a Unique and Challenging Population. Presented at the 11th Annual Academic Surgical Congress, Jacksonville, FL, February 2-4, 2016
60. Benoit, E., Nunez, H., Sim, J., Heffernan, D.S., Monaghan, S.F., Adams Jr., C.A., Kheirbek, T.K., Stephen, A.S. Dismal outcomes: infection and death after laparotomy in elderly trauma patients. Presentation as part of the 36nd Annual meeting of the Surgical Infection Society, Palm Beach FL, May 18-21, 2016
61. Dickinson, C., Nunez, H., Heffernan, D.S., Monaghan, S.F., Kheirbek, T., Adams Jr. C.A., Stephen, A.S. Patients with preexisting psychiatric illness have an increased risk of infectious complications following injury. Presentation as part of the 36nd Annual meeting of the Surgical Infection Society, Palm Beach FL, May 18-21, 2016
62. Monaghan, S.F., Cygan, K.J., Lomas-Neira, J., Chun, C.S., Chen, Y., Cioffi, W.G., Fairbrother, W.G., Ayala, A. Alternative RNA Splicing in Critical Illness: Gene Expression Evidence. Presented at the 12th Annual Academic Surgical Congress, Las Vegas, NV, February 7-9, 2017
63. Lueckel, S.N., Heffernan, D.S., Kheirbek, T., Connolly, M.D., Monaghan, S.F., Adams, C.A., Cioffi, W.G., Thomas, K. Outcomes of Patients with Traumatic Brain Injury in Skilled Nursing Facilities. Presented at the 12th Annual Academic Surgical Congress, Las Vegas, NV, February 7-9, 2017
64. Monaghan, S.F., Cygan, K.J., Lomas-Neira, J., Chun, C.S., Chen, Y., Cioffi, W.G., Fairbrother, W.G., Ayala, A. Modes of Alternative RNA Splicing: Divergent Changes in Response to Critical Illness, but Similarity Across Two Tissues. Presentation as part of the Shock Society Meeting, Ft. Lauderdale, FL, June 2017.
65. Miller, S.M., Lueckel, S.N., Heffernan, D.S., Stephen, A.H., Connolly, M.D, Kheirbek, T., Cioffi, W.G., Adams, C.A., Monaghan, S.F. The Positive Impact of Methadone Treatment on Trauma Patient Outcomes. Presented at the 13th Annual Academic Surgical Congress, Jacksonville, FL, January 30-February 1, 2018.
66. Picone, D.J., Sodha, N.R., Geraci, T.C., Machan, J.T., Sellke, F.W., Cioffi, W.G., Monaghan, S.F. Immune Cell Alterations after Cardiac Surgery Associated with Increased Risk of Complications and Mortality. Presented at the 13th Annual Academic Surgical Congress, Jacksonville, FL, January 30-February 1, 2018.
67. Monaghan, S.F., Cygan, K.J., Lomas-Neira, J., Chun, C.S., Heffernan, D.S., Cioffi, W.G., Harrington, E.O., Fairbrother, W.G., Ayala, A. The RNA spliceosome in critical illness: U1-70K as a potential therapeutic target. Presented at the Shock Society Meeting, Scottsdale, AZ, June 2018.

68. Dressler, J., Benoit, E., Merchant, N., Machan, J., Lueckel, S., Monaghan, S., Kheirbek, T., Stephen, A., Heffernan, D., Connolly, M.D., Adams, C.A. Effect of Diastolic Blood Pressure on Morbidity and Mortality in Blunt Trauma Patients. Poster presentation as part of the 77rd Annual Meeting of the American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery, San Diego, CA, September 26-29, 2018
69. Lueckel, S.N., Miller, S., Tindal, E., Kheirbek, T., Monaghan, S.F., Stephen, A., Benoit, E., Connolly, M.D., Adams, C.A., Cioffi, W.G. Are We More Willing to Make Dad Comfortable after Trauma? Poster presentation as part of the 77rd Annual Meeting of the American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery, San Diego, CA, September 26-29, 2018
70. Fowler, R.L., Stephen, A.H., Lueckel, S.N., Benoit, E., Adams, C.A., Monaghan, S.F., Cioffi, W.G., Heffernan, D.S. Always at the Ready: Out of Hours Presentation Does Not Affect Mortality among Critically Ill Trauma Patients. presentation at the 104th Annual Clinical Congress of the American College of Surgeons, Boston, MA, October 23, 2018.
71. Cortez, R., Ma, B., Akosman, B., Kamle, S., Lee, C.M., Monaghan, S.F., Harrington, D.T., Miner, T.J., Cioffi, W.G., Lee, C.G., Elias, J.A. Intraperitoneal CPX Attenuates Murine Melanoma Metastasis via Inhibition of Chitinase 3-Like-1 Signaling. Presented at the 14th Annual Academic Surgical Congress, Houston, TX, February 5-7, 2019.
72. Wakeley, M.E., Monaghan, S.F., Cioffi, W.G., Ayala, A., Heffernan, D.S. Herpes Virus Entry Mediator (HVEM): A Novel Potential Mediator of Trauma Induced Immunosuppression. Presented at the 14th Annual Academic Surgical Congress, Houston, TX, February 5-7, 2019.
73. Kheirbek, T., Jikaria, N., Murray, B., Lueckel, S.N., Monaghan, S.F., Stephen, A.H., Harrington, D.T., Adams, C.A. Incidence of Non-Therapeutic Administration of Tranexamic Acid in Trauma Patients. Presented at the 14th Annual Academic Surgical Congress, Houston, TX, February 5-7, 2019.
74. Tindal, E.W., Adams, C.A., Monaghan, S.F., Heffernan, D.S., Stephen, A.H., Cioffi, W.G., Lueckel, S.N. Even in Death, Women are Better at Planning Ahead. Presented at the 14th Annual Academic Surgical Congress, Houston, TX, February 5-7, 2019.
75. Hall, B.M., Geraci, T., Machan, J., Milman, S., Cioffi, W., Ng, T., Monaghan, S. Lack of Lymphocyte Recovery after Esophagectomy Predicts Mortality and Recurrence. Presented at the 14th Annual Academic Surgical Congress, Houston, TX, February 5-7, 2019.
76. Wang, EJ, Fredericks, AM, Chung, CS, Heffernan, DS, Cioffi, WG, Harrington, EO, Fairbrother, WG, Ayala, A, Monaghan, SF. Unmapped Viral RNA Sequencing Reads in Critical Illness: A Potential Biomarker. Presented at the 42nd Annual Conference on Shock, Coronado, CA, June 8-11, 2019
77. Fredericks, AM, Wang, EJ, Chung, CS, Heffernan, DS, Cioffi, WG, Harrington, EO, Fairbrother, WG, Ayala, A, Monaghan, SF. Novel B and T Cell Recombination

Identification in a Model of Critical Illness. Presented at the 42nd Annual Conference on Shock, Coronado, CA, June 8-11, 2019

78. Hall, B.M., Heffernan, D.S., Lueckel, S.N., Stephen, A. H., Kheirbek, T., Connolly, M.D., Benoit, E., Adams, C.A., Cioffi, W.G., Monaghan, S.F. Loss of Lymphocytes Can Predict Complications. Poster presentation as part of the 78th Annual Meeting of the American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery, Dallas, TX, September 18-21, 2019
79. Martin, T.J., Kheirbek, T., Benoit, E., Monaghan, S.F., Stephen, A.H., Lueckel, S.N., Adams, C.A. Prehospital Tranexamic Acid Administration: A Cross-sectional Analysis of Statewide EMS Protocols. Presented at the 15th Annual Academic Surgical Congress, Orlando, FL, February 4-6, 2020.
80. Benoit, E., Monaghan, S.F., Kheirbek, T., Stephen, A.H., Lueckel, S.N., Connolly, M.D., Adams, C.A., Cioffi, W.G. Destined to Fail? Overestimation of Mortality and Treatment Effect in Clinical Trials in Trauma. Presented at the 15th Annual Academic Surgical Congress, Orlando, FL, February 4-6, 2020.
81. Jentsch, M.S., Fredericks, A.M., Wang, E.J., Heffernan, D.S., Ayala, A., Monaghan, S.F. RNA Splicing Entropy and Acute Respiratory Distress Syndrome in a Mouse Model. Presented at the 15th Annual Academic Surgical Congress, Orlando, FL, February 4-6, 2020.

INVITED PRESENTATIONS

Regional

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| March 11, 2014 | Surgical Grand Rounds, Rhode Island Hospital, Providence RI, <i>Acute Respiratory Distress Syndrome (ARDS): From ARDSNet to the Immune System</i> |
| November 10, 2015 | Surgical Grand Rounds, Rhode Island Hospital, Providence RI, <i>Pain Control and Sedation in the Intensive Care Unit</i> |
| October 13, 2016 | 8 th Annual Trauma Care Conference, Warwick RI, <i>Injury Patterns in Trauma Patients: Why Mechanism Matters</i> |
| May 1, 2017 | BIRDS Conference, Brown University, Providence RI, <i>Immune Modulating Proteins and Alternative Splicing in Acute Respiratory Distress Syndrome (ARDS).</i> |
| March 23, 2018 | CPVB COBRE Biweekly Meeting, VA Medical Center, Providence RI, <i>The RNA Spliceosome in Critical Illness</i> |
| October 19, 2018 | CPVB COBRE Biweekly Meeting, VA Medical Center, Providence RI, <i>The RNA Spliceosome in Critical Illness: U1-70K a Potential Therapeutic Target</i> |

- November 8, 2018 CPVB COBRE External Advisory Committee Meeting, Brown University, Providence RI, *The Role of Alternative RNA Splicing in Endothelial Cell Barrier Dysfunction in Acute Respiratory Distress Syndrome*
- October 24, 2019 CPVB COBRE External Advisory Committee Meeting, Brown University, Providence RI, *The Role of Alternative RNA Splicing in Endothelial Cell Barrier Dysfunction in Acute Respiratory Distress Syndrome*
- January 10, 2020 CPVB COBRE Biweekly Meeting, VA Medical Center, Providence RI, *The Transcriptomic Phenotype*
- January 29, 2020 Brown MCB Lecture Series, Brown University, Providence RI, *RNA Splicing and Critical Illness*

GRANTS

- 2015-2016 Brown University DEANS Award “Immune Dysfunction in Critical Illness/Injury: Role of Alternative Splicing”
Principal Investigators: Sean Monaghan, MD & Will Fairbrother, PhD
Total Support: \$80,000
- 2016-2018 American College of Surgeons, C. James Carrico, MD, FACS, Faculty Research Fellowship for the Study of Trauma and Critical Care “Immune Dysfunction in Critical Illness/Injury: Role of Alternative Splicing”
Principal Investigator: Sean Monaghan, MD
Total Support: \$80,000
- 2016-2020 National Institutes of Health (NIH) Loan Repayment Program
Principal Investigator: Sean Monaghan, MD
Total Support: \$194,600
- 2018 NIH-NIGMS Pilot Project from the CardioPulmonary Vascular Biology (CPVB) Centers of Biomedical Excellence (COBRE): “Alternative RNA Splicing of Endothelial Cell Adhesion Proteins (PECAM-1 and VE-Cadherin) in ARDS”
Grant No. P20 GM103652
Principal Investigator: Sean Monaghan, MD
Total Support: \$25,000
- 2018-2023 NIH-NIGMS Junior Faculty CardioPulmonary Vascular Biology (CPVB) Centers of Biomedical Excellence (COBRE): “The Role of Alternative RNA Splicing in Endothelial Cell Barrier Dysfunction in Acute Respiratory Distress Syndrome”
Grant No. P20 GM103652
Principal Investigator: Sean Monaghan, MD
Total Support: \$1,610,000.01 over 5 years, pending renewal each year

2019-2020 Brown Physicians Inc (BPI) Research Award “The Role of Alternative RNA Splicing in Endothelial Cell Barrier Dysfunction in Acute Respiratory Distress Syndrome”
Principal Investigator: Sean Monaghan, MD
Total Support: \$50,000

UNIVERSITY TEACHING ROLES

2008-present Advanced Trauma Life Support – taught 1-2 courses each year to new house staff
2009 Alpert Medical School of Brown University – Surgical Clerkship: Suture workshop and Surgical Complications Lecture during orientation; six sessions throughout the year
2009, 2010 Alpert Medical School of Brown University – Intern Boot Camp: Suture Workshop
2011-2012 Alpert Medical School of Brown University – Surgical Clerkship: Resident teaching conference, two lectures during academic year

Educational Activities

Graduate Students

Marilyn Le: Project for PhD in Graduate Program, Thesis Committee Member
Alejandro Scaffa: Project for PhD in Graduate Program, Thesis Committee Member
Kamil Cygan Project for PhD in Graduate Program, Thesis Advisor
Emily Chen: Project for PhD in Graduate Program, Thesis Committee Member
Brandon Armstead: Project for PhD in Graduate Program, Thesis Committee Member

Post-doctoral Fellow

2019- Alger Fredericks

Resident Research Mentees

2016-2019 Desiree Picone
2016-2020 Benjamin Hall

Medical Student Research Mentees

2015- David Glidden
2016-2018 Daniel Eisenson
2016-2018 Samuel Miller
2016-2018 William Zahn
2018- Elaine Wang
2018- Maximilian Jentsch

Undergraduate Student Research Mentees

2016 Kenyon Alexander
2017- 2019 Luke Buerer
2018-2019 Anqi Zhou
2018 Laura Rubino
2018- Marie Baker
2019 Karen T. Romer Undergraduate Teaching and Research Award (UTRA)
2019- Daniel Alber