

ARTICLES AND ABSTRACTS ABOUT

THE HUMAN WORN SURGICAL SIMULATOR (CUT SUIT), HYPER-REALISM®, STRESS INOCULATION, AND TEAM EFFECTIVENESS IN MEDICAL EDUCATION PUBLISHED

1. Mueller, G; Moloff, A; Wedmore, I; Schoeff, J; LaPorta, A.J: **“High Intensity Scenario Training of Military Medical Students to Increase Learning Capacity and Management of Stress Response”** *Journal of Special Operations Medicine*, Vol. 12, Ed 2, Summer 2012, Pages 71-76. <https://pubmed.ncbi.nlm.nih.gov/22707028/>
2. Mueller G.; Hunt B.; Wall, V.; Rush, R.; Moloff, A.; Schoeff J.; Wedmore, I.; Schmid, J.; LaPorta, A.J: **“Intensive Skills Week for Military Medical Students Increases Technical Proficiency, Confidence, and Skills to Minimize Negative Stress”** *Journal of Special Operations Medicine*, Vol 12 Ed 4. Winter 2012 Pages 45 – 53. <https://pubmed.ncbi.nlm.nih.gov/23536457/>
3. Tuan N. Hoang, MD, FACS, CDR, MC, USN; Jeff Kang, MD, LCDR, MC, USN; Anthony J. LaPorta, MD, FACS, COL (Ret), USA; Vyacheslav I. Makler, MS3, ENS, MC, USNR; Carissa Chalut, MS3, 2LT, USAR: **“Filling in the Gaps of Pre-Deployment Fleet Surgical Team Training Using a Team-Centered Approach”** *Journal of Special Operations Medicine*; Winter 2013. <https://pubmed.ncbi.nlm.nih.gov/24227558/>
4. Lipshy, Kenneth; LaPorta, AJ: **“Leadership Skills in the OR, Part III: Operating Room Crisis Management Leadership Training: Guidance for surgical team education”** *Bulletin American College of Surgeons*, Vol 98, No. 9. October 1, 2013.
5. C.J. Calvano M.D; R. Enzenauer M.D; D. L. Eisnor; A. J. LaPorta, M.D: **“Tactical Lighting in Special Operations Medicine: Survey of Current Preferences”** *Journal of Special Operations Medicine*. Vol. 13, Edition 4/Winter 2013. <https://pubmed.ncbi.nlm.nih.gov/24227557/>
6. LaPorta, A.J.; Hoang, T.; Moloff, A.; Tieman, M.; Schwartz, B.D.; Slack, S; Chalut, C.; Kang, J.; Unangst A: **“How Blended Hyper-Realism in the Real and Virtual Worlds Can Better Prepare Surgeons”** *Medicine Meets Virtual Reality 21*. Ed. James Westwood, (Stud Health Technol Inform 2014, 196: 233-7) IOS-Press 2014, 233. <https://pubmed.ncbi.nlm.nih.gov/24732513/>
7. LaPorta, A.J.; Franciose, R; Robinson D: **“Operating Room Crisis – The Video Opportunity”** MEDtube.net; July 2014.
8. LaPorta, A.J.; Franciose, R.: **“Operating Room Teaching”** MEDtube.net; August 2014.

9. Mark S. Lea MD, FACS; Ryan Slattery OMS-III, Anthony J. LaPorta MD, FACS; Michael Tieman MD, FACS; Rebecca Bowden PhD; Joseph Stasio DO; Alan Moloff DO, MPH; Reginald Franciose MD, FACS; Tuan Hoang MD, FACS: **“Rocky Vista University, College of Osteopathic Medicine Hyper-Realistic Simulation Center, The First ACS-AEI Surgery Center in an Osteopathic Medical School,”** *Journal of Surgical Education*, Volume 72, Issue 2, Pages A1-A8, 179-366 (March-April 2015). (14) 00312-2/abstract
10. Kirkpatrick, A; Brien, S; LaPorta, A.J; **“The Need for a Robust 24/7 Sub-Specialty ‘Clearing House’ Response for Tele-Mentored Trauma Care.”** *Can J Surg*, Vol. 58 (Issue 3 Suppl 3) June 2015. <https://pmc.ncbi.nlm.nih.gov/articles/PMC4467508/>
11. Anthony J LaPorta, MD, FACS, Charles Hutchinson, MS, Douglas Granger, PhD, Mark Lea, MD, FACS, Roy Alson, MD, FACEP, Michael Czekajlo, MD, PhD, Alan Moloff, DO, MPH, Tuan Hoang, MD, FACS Reginald Franciose, MD, FACS and Joseph LaPorta, MS: **“The Correlation of Salivary Cortisol and Alpha Amylase in the Execution of Realistic Surgical Trauma Simulation and Medical Student Training: Abstract.”** *The Proceedings of the American College of Surgeons, Accredited Education Institution*. March 13-14, 2015, Chicago IL <https://pubmed.ncbi.nlm.nih.gov/25887044/>
12. Andrew W. Kirkpatrick, MHS MD Deon Louw, MD^[1]Anthony LaPorta, MD^[1]Susan Brien, MD, Tim Leslie, Elon Glassberg, MD, MHA Jessica McKee, MSc^[1]Chad G. Ball, MSc^[1]Heather E. Wright-Beatty, PhD Jocelyn Keillor, PhD^[1]Derek J. Roberts, MD, MSc Homer Tien, MD: **“Technical innovations that may facilitate real-time tele-mentoring of damage control surgery in austere environments: a proof concept comparative evaluation of the importance of surgical experience, telepresence, gravity and mentoring in the conduct of damage control laparotomies.”** *Can. J. Surg.* 2015 Jun; 58(3 Suppl. 3): S88–S90. <https://pubmed.ncbi.nlm.nih.gov/26100783/>
13. McKee J, Tien H, Wright-Beatty H, Keillor J, LaPorta A., Brien S, Roberts D, Ball C, Louw D, Kirkpatrick A: **“Expediting operational damage control laparotomy closure: iTClamp v. suturing during damage control surgical simulation training.”** *Can J Surg* 2015;58(2): S30.
14. Kirkpatrick A, Tien, LaPorta, Lavell K, Keillor J, Wright Beatty, McKee J, Brien S, Roberts D, Wong J, Ball C, Beckett A.: **“The marriage of surgical simulation and tele-mentoring for Damage Control Surgical training of operational first-responders.”** *Can J Surg* 2015; 58 (2) S10 [Abstr] <https://pubmed.ncbi.nlm.nih.gov/26422331/>
15. LaPorta, A.J., MD, FACS; Hoang, T., MD, FACS; Hutchinson, DO; Edwards, S., MS4; Granger, D PhD; Czekajlo, M., MD, PhD; Taut, L; Fields, R, Lea, M.; Tieman, M. MD, FACS: **“The Jump Past Textbooks to Life and Death Situations.”** Proceedings of 6th International Clinical Skills Conference. Prato, Tuscany, Italy. May 17-20, 2015.

16. LaPorta, A.J., FACS; Hutchinson, C; Pitcher, J.; Heck, A., PhD; Granger, D; Lea, M: **“Full Training Immersion from Point of Injury to Recovery Room: Measuring Salivary Cortisol and Amylase While Correlating Effective Training.”** Proceedings of 6th International Clinical Skills Conference. Prato, Tuscany, Italy. May 17-20, 2015.
17. Warner, L MS2; Saffer, E MS2; LaPorta, A.J, MD, FACS; Hoang, T., MD, FACS; Lea, M, MD, FACS; Siriratsivawong, K M.D; Kang, J, MD: **“The Operating Room Crisis - Hollywood and Immersion Training Teaches How to Handle the Catastrophic or Unexpected Event.”** Proceedings of 6th International Clinical Skills Conference. Prato, Tuscany, Italy. May 17-20, 2015.
18. Andrew W. Kirkpatrick, MD, FRCSC, Homer Tien, MD, FRCSC, Anthony T. LaPorta, MD, FACS, Kit Lavell, Jocelyn Keillor, PhD, Heather E. Wright Beatty, PhD, Jessica Lynn McKee, MSc, Susan Brien, MD, FRCSC, Derek J. Roberts, MD, PhD, Jonathan Wong, BSc, Chad G. Ball, MD, FRCSC, and Andrew Beckett, MD, FRCSC, Calgary, Alberta, Canada: **“The Marriage of Surgical Simulation and Tele-Mentoring for Damage Control Surgical Training of Operational First-Responders: A Pilot Study”** *J Trauma Acute Care Surg* 29 October 2015 November; 79(5): 741-7. <https://pubmed.ncbi.nlm.nih.gov/26422331/>
19. A.J., LaPorta; C. Hutchinson; D. Robinson; M. Lea; R. Franciose; L. Gaul; R. Alson; M. Czekajlo; D. Granger; A. Moloff: **The Use of Hyper-Realistic Surgical Simulation.** I/ITSEC Proceedings Interservice/Industry Training, Simulation, and Education Conference) Orlando Florida Dec1-5, 2015
20. A.J. LaPorta; A. Man; G. Adams; C. McKinney; J. Snider and D. Robinson; **“The Cost Effectiveness of Research: Are These Objective Measurements the Tools of the Future?”** (Abstract) Proceedings of the 22nd Medicine Meets Virtual Reality Conference (MMVR22), Los Angeles, California, April 7-9, 2016.
21. A.J. LaPorta; A.W. Kirkpatrick; T. Hoang; E. Pierce; H. Tien; J. McKee; S. Brien; D. Louw; A. Skinner; R. Dee and L. Bezjian; **Usage, Development and Refinement of a High-Fidelity Surgical Phantom for Examining Torso Exsanguination in Weightlessness and Multiple Sea States** [Abstract]; Proceedings of the 22nd Medicine Meets Virtual Reality Conference (MMVR22) Los Angeles California April 7-9, 2016.

22. Antony J LaPorta, MD, Anna J Austin, Conner McKinney, Amber Heck, PhD, Lawrence Gaul, MD, Tuan Hoang, MD, Reginald Franciose, MD, Rocky Vista University School of Medicine, Parker, CO: **Sleep Recovery in Total Immersion Surgical Training: Training as if Real.** Scientific Forum Abstract, Journal of American College Surgeons Vol 233, No.4S1 October 2016 S132. Tuan N. Hoang, MD, FACS; Jeff Kang, MD, FACS; Kris Siriratsivawong, MD; Anthony LaPorta, MD, FACS (Ret.); Amber Heck, PhD; Jessica Ferraro, BSN; Douglas Robinson, MS4; Jonathan Walsh, MS3. **Hyper-realistic, team-centered fleet surgical team training provides sustained improvements in performance** *Journal Surgical Education*, Volume 73, issue 4, p.668-674. <https://pmc.ncbi.nlm.nih.gov/articles/PMC7066601/>
23. Michelle Pedler, BSc, Frank Ruiz, BA, Micaela Lamari, Charles Hutchinson, DO, Brandon Noyes, DO, J. Mark Petrash, PhD, Chris Calvano, MD, Anthony LaPorta, MD, Robert W. Enzenauer, MD: **Red-Green Versus Blue Tactical Light- A Direct, Objective Comparison.** *Journal of Special Operations Medicine*, Volume 16, Edition 4/Winter 2016. Pages 54-58.
24. A.J., LaPorta; C. Hutchinson; D. Robinson; M. Lea; R. Franciose; L. Gaul; R. Alson; M. Czekajlo; D. Granger; A. Moloff: **The Use of Hyper-Realistic Surgical Simulation. I/ITSEC** Proceedings Interservice/Industry Training, Simulation, and Education Conference Orlando Florida Dec1-5, 2015.
25. Kirkpatrick, A, McKee J., Tien H., LaPorta A., Lavell K. Leslie T., Ball, C.G., McBeth P., Roberts, D.J., (2017). **Abbreviated Closure for Remote Damage Control Laparotomy in Extreme Environments: a Randomized Trial of Sutures Versus Wound Clamps Comparing Terrestrial and Weightless Conditions.** *American Journal of Surgery*, 213(5):862-869.
26. A. Kirkpatrick; J. McKee; H. Tien; A. LaPorta; K. Lavell; T. Leslie; D. King; P. McBeth; S. Brien; D. Roberts; R. Franciose; J. Wong; V. McAlister; D. Bouchard; C. Ball: **Damage Control Surgery in Weightlessness: A comparative Study of Simulated Torso Hemorrhage Control Comparing Terrestrial and Weightless Conditions.** *Journal of Trauma and Acute Care Surgery* February, 2017, Volume 82, issue 2, p 392-399
<https://pubmed.ncbi.nlm.nih.gov/27787439/>
27. LaPorta, A.J Kirkpatrick, A; Pierce, E; Hoang, T; Gaul, L; Franciose, R; McKee, J; Moloff, A; Skinner, A; McBeth, P. **The Usefulness of Heart Rate Variability on Trauma Team Members in Weightlessness, Difficult Oceanic Conditions, and Mass Casualty Training.** Proceedings of the 7th International Clinical Skills Conference. Page 56, 2017 Prato IT

28. LaPorta, A.J.; Kirkpatrick, A; Hoang, T; Pierce, E; Bork, M; Liu, M; Herder, P: **Training for Trauma in the Ultimate Austere Environments-High Sea States and Weightlessness.** Proceedings of the 7th International Clinical Skills Conference. Page 80. Prato IT.
29. LaPorta AJ, Ross, D. **Operating Room Crisis-Training Realistically for the Rare but Inevitable.** Proceedings of the 7th International Clinical Skills Conference. Page 96, 2017 Prato IT.
30. Hoang, T; LaPorta, AJ; Wrenn, K; Lucero, A; Mullinax, R; Ross, D; **Methods of Team Training When All Members of The Interdisciplinary Team Are Experts.** Proceedings of the 7th International Clinical Skills Conference. Page 97, 2017 Prato IT
31. LaPorta, AJ; Alson, R; Moloff, A; Ross, D Hoang, T; Franciose, R; Almazan, M; Marlin, J; Fergusson, B; Sureshi, P; Berber, G; Czekajlo, M. **Biologic Objective Measurements of the Future.** Proceedings of 7th International Clinical Skills Conference. Page 97, 2017 Prato IT
32. LaPorta AJ,; McKee, J; Hoang, T; McBeth, P.; Gillman, L; Kirkpatrick, A: **Stress Inoculation: Preparing Outside the Box in Surgical Resuscitation and Education.** *Current Trauma, Current Trauma Rep* (2017) 3: 135. doi:10.1007/s40719-017-0090-2
33. Eric Pierce, Nita Shattuck, Cameron Bass, Tuan Hoang, Anthony LaPorta, Reginald Franciose, Matthew, Michael Juliano: **Effect of High Deck Accelerations on Surgical Tasks Phase III,** Naval Surface Warfare Center -Panama City Division PANAMA CITY, FLORIDA 32407-7001 PID 1290/BUMED Number NSWCPD.2016.0001 13 November 2017 Test Engineering Branch (E41), Human Systems Integration Team Technical Report
34. Kirkpatrick, Andrew W CD, MHSc, MD, FRCSC, FACS; McKee, Jessica BA, MSc; McBeth, Paul B. MD, FRCSC; Ball, Chad G MSc FRCSC, FACS; LaPorta, Anthony MD, FACS; Broderick, Timothy MD, FACS; Leslie, Tim BSc, MSc; King, David MD, FACS; Wright-Beatty, Heather PhD; Keillor, Jocelyn PhD; Tien, Homer CD, MD, FRCSC: **The Damage Control Surgery in Austere Environments Research Group (DCSAERG): A dynamic program to facilitate real-time tele-mentoring/tele-diagnosis to address exsanguination in extreme and austere environments.** *Journal of Trauma and Acute Care Surgery*, April, 5, 2017. doi: 10.1097/TA.0000000000001483(Abstract only) <https://pubmed.ncbi.nlm.nih.gov/28628601/>
35. Lateef, Fatima MD: **Training for Emergency Department Thoracotomy.** *Global Journal of Emergency Medicine*, Vol 1 Issue 2 16 May 2018.

36. LaPorta, J. MS III, BS, McClure, T. MS III, BA and Tieman, T. MD, FACS. **Results of a Surgical Simulation Course Designed to Improve Surgery Clerkship Performance.** *Journal of Surgical Education*. 2018 May - Jun;75(3):656-663. doi: 10.1016/j.jsurg.2017.09.026. Epub 2017 Oct 25 LaPorta, Joseph III, BS, McClure, Tanner III, BA and Michael E. Tieman, Michael E. MD, FACS, **Results of a Surgical Simulation Course Designed to Improve Surgery Clerkship Performance,** *Journal of Surgical Education*, <https://pubmed.ncbi.nlm.nih.gov/29079109/>
37. Malone, J.D. CAPT USN (Ret.) MD, Dukovich M. CAPT USN (Ret.) PhD., Hoang T. CAPT USN, MD, Lavell, K. **Realistic Trauma Training Hones Surgical Teams.** *U.S. Naval Institute Proceedings*. December 2018 54-57.
<https://www.usni.org/magazines/proceedings/2018/december/realistic-trauma-training-hones-surgical-teams>
38. Ferrin, N., BS, Zarbock, T. BS, and Tieman, M. MD, FACS, **Effect of Grading and Class Rank on Performance in a Surgical Simulation,** *Journal of Surgical Education*. 2020 Jan- Feb;77(1):166-177. doi: 10.1016/j.jsurg.2019.07.001. Epub 2019 Jul 18.
<https://pubmed.ncbi.nlm.nih.gov/31326412/>
39. Hoang, T. MD, LaPorta, A.J. MD, Malone, J.D. MD, MPH, Champagne, R. RN, MPH, Lavell K., BA, De La Rosa, G. PhD, Gaul, L. MD, Dukovich, M. PhD. **Hyper-realistic and Immersive Surgical Simulation Training Environment Will Improve Team Performance.** *Trauma Surg Acute Care Open* 2020;5:e000393. doi:10.1136/tsaco-2019-000393
<https://pmc.ncbi.nlm.nih.gov/articles/PMC7066601/>
40. 2LT Holly V. Spitzer, MC, USA; CAPT Tuan Hoang, MC, USN; Eric Pierce, MS, Reginald J. Franciose, MD, FACS; Matthew Pena, MD, FASA; Nita L. Shattuck, PhD; Cameron R. Bass, PhD; Jeffrey Blankenship, MS; Michael Juliano, MD, FACEP; ENS Cameron B. Lindemann, MC, USNR; 2Lt Hayden A. Springer, USAF, MC; COL Anthony J. LaPorta, MC, USA, (Ret.), **Assessing Surgical Task Load and Performance: A Comparison of Simulation and Maritime Operation, Military Medicine**, 185, S1:599, 202
<https://doi.org/10.1093/milmed/usz297>
41. King D. **Self-expanding foam versus preperitoneal packing for exsanguinating pelvic hemorrhage: Surgical Simulation during Parabolic Flight.** *Journal of Trauma and Acute Care Surgery* (IN PRESS). <https://pubmed.ncbi.nlm.nih.gov/37700445/>

42. Erin West OMS3, Gail Singer-Chang PsyD, Rebecca Ryznar PhD, David Ross DO FACEP, Michael Czekajlo MD, Tuan Hoang MD, FACS, Roy Alson MD PhD, German Berbel DO, Alan Moloff DO MPH, Marian Safaoui MD, Natalie Nevins DO, Anthony J. LaPorta MD, FACS, **The Effect of Hyper-Realistic Trauma Training on Emotional Intelligence in Second Year Military Medical Students**, *Journal of Surgical Education*. 2020 Nov-Dec. Volume 77, Issue 6, pp 1422-1428. <https://pubmed.ncbi.nlm.nih.gov/32624450/>
43. Alissa Lenz, BS, Ryan Shelton, MPS, NREMT-P, Rebecca Ryznar, PhD, Kit Lavell, BA, David Ross, DO, FACEP, Susan Carter, MD, FACOG, FACS, Andrew W. Kirkpatrick, CD, MD, MHSc, FRCSC, FACS, Jessica L. McKee, BA, MSc, Anthony J. LaPorta, MD, FACS, Chris Wells, BS, **The next nine minutes: Lessons learned from the large-scale active shooter training prior to the STEM school shooting**. *American Journal of Disaster Medicine*. Vol 15, No. 4 (2020). <https://pubmed.ncbi.nlm.nih.gov/33428195/>
44. Lindemann ENSC, Hoang T, Pierce E, Franciose R, Pena M, Wilson T, Bass C, Shattuck NL, LaPorta AJ. **Efficacy of Medical Operations and Layout Planning Onboard Nontraditional US Navy Vessels at High Seas**. *Mil Med*. 2020 Jan 7;185(Suppl 1):590-598. doi: 10.1093/milmed/usz227. PMID: 31498411. <https://pubmed.ncbi.nlm.nih.gov/31498411/>
45. Chao, Edward, et al. **“Hyper-Realistic Advanced Surgical Skills Package with Cut Suit Simulator Improves Trainee Surgeon Confidence in Operative Trauma.”** *The American Surgeon*, 2022, pp. 313482211425–31348221142585 <https://doi.org/10.1177/00031348221142585>
46. Fitzgerald, C.A., Dumas, R.P. **“Trauma Quality Improvement and Team Education: How Can We Better Optimize Our Training?”**. *Curr Surg Rep* 11, 117–125 (2023). <https://doi.org/10.1007/s40137-023-00351-2>
47. Fuentes, Gidget. **“Cut Suits’ Provide Realistic Hospital Trauma Training.”** *Navy Times*, 2010, p. 19–.
48. Nevins, Natalie A., et al. **“A Mixed Methods Investigation on the Relationship Between Perceived Self-Regard, Self-Efficacy, and Commitment to Serve Among Military Medical Students.”** *Military Medicine*, vol. 188, no. 7-8, 2023, pp. e2266–e2274 <https://doi.org/10.1093/milmed/usac430>
49. White, Allana, et al. **“Medical Students Immersed in a Hyper-Realistic Surgical Training Environment Leads to Improved Measures of Emotional Resiliency by Both Hardiness and Emotional Intelligence Evaluation.”** *Frontiers in Psychology*, vol. 11, 2020, pp. 569035–569035 <https://doi.org/10.3389/fpsyg.2020.569035>

50. Zapata, Isain, et al. **“Emotional Intelligence, Cortisol and α -Amylase Response to Highly Stressful Hyper-Realistic Surgical Simulation of a Mass Casualty Event Scenario.”** *Comprehensive Psychoneuroendocrinology* (Online), vol. 5, 2021, pp. 100031–100031
<https://doi.org/10.1016/j.cpniec.2021.100031>
51. Swain, C., Stathakarou, N., Alzuguren, P. *et al.* **“Trauma surgical simulation: discussing the replacement of live animals used as human patient simulators.”** *Adv Simul* 9, 7 (2024).
<https://doi.org/10.1186/s41077-024-00279-2>
52. Shahrezaei, A., Sohani, M., Taherkhani, S. *et al.* **“The impact of surgical simulation and training technologies on general surgery education.”** *BMC Med Educ* 24, 1297 (2024).
<https://doi.org/10.1186/s12909-024-06299-w>