



Core Faculty Publications

July 2014 - June 2017

[Fabrisia Ambrosio](#)

[Stephen Badylak](#)

[Timothy Billiar](#)

[Bryan Brown](#)

[Xinyan Tracy Cui](#)

[Albert Donnenberg](#)

[Vera Donnenberg](#)

[Andrew Duncan](#)

[William Federspiel](#)

[Paulo Fontes](#)

[Ira Fox](#)

[Freddie Fu](#)

[Jörg Gerlach](#)

[Marina Kameneva](#)

[Robert Kormos](#)

[Eric Lagasse](#)

[Steven Little](#)

[Kacey Marra](#)

[Paul Monga](#)

[J. Peter Rubin](#)

[Andrew Schwartz](#)

[Charles Sfeir](#)

[Sanjeev Shroff](#)

[Donna Stolz](#)

[Bryan Tillman](#)

[Rocky Tuan](#)

[Elizabeth Tyler-Kabara](#)

[Yoram Vodovotz](#)

[William Wagner](#)

[Yadong Wang](#)

[Alan Wells](#)

Ambrosio

[Moritz CT, Ambrosio F](#). Regenerative Rehabilitation: Combining Stem Cell Therapies and Activity-Dependent Stimulation. *Pediatric Physical Therapy*. 2017 Jul;29 Suppl 3 Supplement, IV Step 2016 Conference Proceedings Supplement:S10-S15.

[Stearns-Reider KM, D'Amore A, Beezhold K, Rothrauff B, Cavalli L, Wagner WR, Vorp DA, Tsamis A, Shinde S, Zhang C, Barchowsky A, Rando TA, Tuan RS, Ambrosio F](#). Aging of the skeletal muscle extracellular matrix drives a stem cell fibrogenic conversion. *Aging Cell*. 2017 Jun;16(3):518-528. Epub 2017 Mar 30.

[Lai S, Panarese A, Lawrence R, Boninger ML, Micera S, Ambrosio F](#). A Murine Model of Robotic Training to Evaluate Skeletal Muscle Recovery after Injury. *Medicine and Science in Sports and Exercise*. 2017 Apr;49(4):840-847.

[Badylak SF, Dziki JL, Sicari BM, Ambrosio F, Boninger ML](#). Mechanisms by which acellular biologic scaffolds promote functional skeletal muscle restoration. *Biomaterials*. 2016 Oct;103:128-36. Epub 2016 Jun 24.

[Ross HH, Ambrosio F, Trumbower RD, Reier PJ, Behrman AL, Wolf SL](#). Neural Stem Cell Therapy and Rehabilitation in the Central Nervous System: Emerging Partnerships. *Physical Therapy*. 2016 May;96(5):734-42. Epub 2016 Feb 4.

[Ambrosio F, Kleim JA](#). Regenerative Rehabilitation and Genomics: Frontiers in Clinical Practice. *Physical Therapy*. 2016 Apr;96(4):430-2.

[Han N, Yabroudi MA, Stearns-Reider K, Helkowski W, Sicari BM, Rubin JP, Badylak SF, Boninger ML, Ambrosio F](#). Electrodiagnostic Evaluation of Individuals Implanted With Extracellular Matrix for the Treatment of Volumetric Muscle Injury: Case Series. *Physical Therapy*. 2016 Apr;96(4):540-9. Epub 2015 Nov 12.

[Zhang C, Ferrari R, Beezhold K, Stearns-Reider K, D'Amore A, Haschak M, Stolz D, Robbins PD, Barchowsky A, Ambrosio F](#). Arsenic Promotes NF-Kb-Mediated Fibroblast Dysfunction and Matrix Remodeling to Impair Muscle Stem Cell Function. *Stem Cells*. 2016 Mar;34(3):732-42. Epub 2016 Jan 8. Erratum in: *Stem Cells*. 2016 Sep;34(9):2448.

[Dalise S, Ambrosio F, Modo M](#). Brain plasticity and recovery in preclinical models of stroke. *Archives Italiennes de Biologie*. 2014 Dec;152(4):190-215.

[Gentile NE, Stearns KM, Brown EH, Rubin JP, Boninger ML, Dearth CL, Ambrosio F, Badylak SF](#). Targeted rehabilitation after extracellular matrix scaffold transplantation for the treatment of volumetric muscle loss. *American Journal of Physical and Medical Rehabilitation*. 2014 Nov;93(11 Suppl 3):S79-87. Review.

[Ambrosio F, Brown E, Stolz D, Ferrari R, Goodpaster B, Deasy B, Distefano G, Roperti A, Cheikhi A, Garciafigueroa Y, Barchowsky A](#). Arsenic induces sustained impairment of skeletal muscle and muscle progenitor cell ultrastructure and bioenergetics. *Free Radical Biology and Medicine*. 2014 Sep;74:64-73. Epub 2014 Jun 21.

Badylak

[Huleihel L, Bartolacci JG, Dziki JL, Vorobyov T, Arnold B, Scarritt ME, Pineda Molina C, LoPresti ST, Brown BN, Badylak SF](#). Matrix-Bound Nanovesicles Recapitulate Extracellular Matrix Effects on Macrophage Phenotype. *Tissue Engineering Part A*. 2017 Jun 30. [Epub ahead of print]

[Dziki JL, Huleihel L, Scarritt ME, Badylak SF](#). Extracellular Matrix Bioscaffolds as Immunomodulatory Biomaterials. *Tissue Engineering Part A*. 2017 May 19. [Epub ahead of print]

[Dziki JL, Giglio RM, Sicari BM, Wang DS, Gandhi RM, Londono R, Dearth CL, Badylak SF](#). The Effect of Mechanical Loading Upon Extracellular Matrix Bioscaffold-Mediated Skeletal Muscle Remodeling. *Tissue Engineering Part A*. 2017 Apr 19. [Epub ahead of print]

[Hwang J, San BH, Turner NJ, White LJ, Faulk DM, Badylak SF, Li Y, Yu SM](#). Molecular assessment of collagen denaturation in decellularized tissues using a collagen hybridizing peptide. *Acta Biomaterialia*. 2017 Apr 15;53:268-278. Epub 2017 Feb 1.

[Fercana GR, Yerneni S, Billaud M, Hill JC, VanRyzin P, Richards TD, Sicari BM, Johnson SA, Badylak SF, Campbell PG, Gleason TG, Phillippi JA](#). Perivascular extracellular matrix hydrogels mimic native matrix microarchitecture and promote angiogenesis via basic fibroblast growth factor. *Biomaterials*. 2017 Apr;123:142-154. Epub 2017 Jan 30.

[Costa A, Naranjo JD, Londono R, Badylak SF](#). Biologic Scaffolds. *Cold Spring Harbor Perspectives in Medicine*. 2017 Mar 20. pii: a025676. [Epub ahead of print]

[White LJ, Taylor AJ, Faulk DM, Keane TJ, Saldin LT, Reing JE, Swinehart IT, Turner NJ, Ratner BD, Badylak SF](#). The impact of detergents on the tissue decellularization process: A ToF-SIMS study. *Acta Biomaterialia*. 2017 Mar 1;50:207-219. Epub 2016 Dec 16.

[Keane TJ, Dziki J, Sobieski E, Smoulder A, Castleton A, Turner N, White LJ, Badylak SF](#). Restoring Mucosal Barrier Function and Modifying Macrophage Phenotype with an Extracellular Matrix Hydrogel: Potential Therapy for Ulcerative Colitis. *Journal of Crohn's and Colitis*. 2017 Mar 1;11(3):360-368.

[Saldin LT, Cramer MC, Velankar SS, White LJ, Badylak SF](#). Extracellular matrix hydrogels from decellularized tissues: Structure and function. *Acta Biomaterialia*. 2017 Feb;49:1-15. Epub 2016 Dec 1. Review.

[Keane TJ, Dziki J, Castleton A, Faulk DM, Messerschmidt V, Londono R, Reing JE, Velankar SS, Badylak SF](#). Preparation and characterization of a biologic scaffold and hydrogel derived from colonic mucosa. *Journal of Biomedical Materials Research. Part B, Applied Biomaterials*. 2017 Feb;105(2):291-306. doi: 10.1002/jbm.b.33556. Epub 2015 Oct 27.

[Jin T, Nicholls FJ, Crum WR, Ghuman H, Badylak SF, Modo M](#). Diamagnetic chemical exchange saturation transfer (diaCEST) affords magnetic resonance imaging of extracellular matrix hydrogel implantation in a rat model of stroke. *Biomaterials*. 2017 Jan;113:176-190. Epub 2016 Oct 29.

[Dziki JL, Wang DS, Pineda C, Sicari BM, Rausch T, **Badylak SF**](#). Solubilized extracellular matrix bioscaffolds derived from diverse source tissues differentially influence macrophage phenotype. *Journal of Biomedical Materials Research, Part A*. 2017 Jan;105(1):138-147. Epub 2016 Sep 21.

[Matsui D, Zaidi AH, Martin SA, Omstead AN, Kosovec JE, Huleihel L, Saldin LT, DiCarlo C, Silverman JF, Hoppo T, Finley GG, **Badylak SF**, Kelly RJ, Jobe BA](#). Primary tumor microRNA signature predicts recurrence and survival in patients with locally advanced esophageal adenocarcinoma. *Oncotarget*. 2016 Dec 6;7(49):81281-81291.

[Naranjo JD, Scarritt ME, Huleihel L, Ravindra A, Torres CM, **Badylak SF**](#). Regenerative Medicine: lessons from Mother Nature. *Regenerative Medicine*. 2016 Dec;11(8):767-775. Epub 2016 Nov 25.

[Costa A, Naranjo JD, Turner NJ, Swinehart IT, Kolich BD, Shaffiey SA, Londono R, Keane TJ, Reing JE, Johnson SA, **Badylak SF**](#). Mechanical strength vs. degradation of a biologically-derived surgical mesh over time in a rodent full thickness abdominal wall defect. *Biomaterials*. 2016 Nov;108:81-90. Epub 2016 Sep 2.

[D'Amore A, Yoshizumi T, Luketich SK, Wolf MT, Gu X, Cammarata M, Hoff R, **Badylak SF**, Wagner WR](#). Bi-layered polyurethane - Extracellular matrix cardiac patch improves ischemic ventricular wall remodeling in a rat model. *Biomaterials*. 2016 Nov;107:1-14. Epub 2016 Aug 19.

[Badylak SF, Dziki JL, Sicari BM, Ambrosio F, Boninger ML](#). Mechanisms by which acellular biologic scaffolds promote functional skeletal muscle restoration. *Biomaterials*. 2016 Oct;103:128-36. Epub 2016 Jun 24.

[Dziki JL, Sicari BM, Wolf MT, Cramer MC, **Badylak SF**](#). Immunomodulation and Mobilization of Progenitor Cells by Extracellular Matrix Bioscaffolds for Volumetric Muscle Loss Treatment. *Tissue Engineering Part A*. 2016 Oct;22(19-20):1129-1139.

[Takanari K, Hong Y, Hashizume R, Huber A, Amoroso NJ, D'Amore A, **Badylak SF**, Wagner WR](#). Abdominal wall reconstruction by a regionally distinct biocomposite of extracellular matrix digest and a biodegradable elastomer. *Journal of Tissue Engineering and Regenerative Medicine*. 2016 Sep;10(9):748-61. Epub 2013 Dec 27.

[Wu Y, Wang J, Shi Y, Pu H, Leak RK, Liou AK, **Badylak SF**, Liu Z, Zhang J, Chen J, Chen L](#). Implantation of Brain-derived Extracellular Matrix Enhances Neurological Recovery after Traumatic Brain Injury. *Cell Transplantation*. 2016 Aug 5. [Epub ahead of print]

[Loneker AE, Faulk DM, Hussey GS, D'Amore A, **Badylak SF**](#). Solubilized liver extracellular matrix maintains primary rat hepatocyte phenotype in-vitro. *Journal of Biomedical Materials Research, Part A*. 2016 Jul;104(7):1846-7.

[Huleihel L, Hussey GS, Naranjo JD, Zhang L, Dziki JL, Turner NJ, Stolz DB, **Badylak SF**](#). Matrix-bound nanovesicles within ECM bioscaffolds. *Scientific Advances*. 2016 Jun 10;2(6):e1600502. eCollection 2016 Jun.

[Quijano LM, Lynch KM, Allan CH, Badylak SF, Ahsan T](#). Looking Ahead to Engineering Epimorphic Regeneration of a Human Digit or Limb. *Tissue Engineering, Part B. Reviews*. 2016 Jun;22(3):251-62. Epub 2016 Jan 29.

[Ghuman H, Massensini AR, Donnelly J, Kim SM, Medberry CJ, Badylak SF, Mado M](#). ECM hydrogel for the treatment of stroke: Characterization of the host cell infiltrate. *Biomaterials*. 2016 Jun;91:166-81. Epub 2016 Mar 18.

[Zhang J, Hu ZQ, Turner NJ, Teng SF, Cheng WY, Zhou HY, Zhang L, Hu HW, Wang Q, Badylak SF](#). Perfusion-decellularized skeletal muscle as a three-dimensional scaffold with a vascular network template. *Biomaterials*. 2016 May;89:114-26. Epub 2016 Feb 26.

[Zhang J, Cheng WY, Hu ZQ, Turner NJ, Zhang L, Wang Q, Badylak SF](#). A panel data set on harvest and perfusion decellularization of porcine rectus abdominis. *Data in Brief*. 2016 Apr 13;7:1375-82. eCollection 2016 Jun.

[Huleihel L, Hussey GS, Naranjo JD, Zhang L, Dziki JL, Turner NJ, Stolz DB, Badylak SF](#). Matrix-bound nanovesicles within ECM bioscaffolds. *Science Advances*. 2016 Jun 10;2(6):e1600502. eCollection 2016 Jun.

[Quijano LM, Lynch KM, Allan CH, Badylak SF, Ahsan T](#). Looking Ahead to Engineering Epimorphic Regeneration of a Human Digit or Limb. *Tissue Engineering Part B, Reviews*. 2016 Jun;22(3):251-62. Epub 2016 Jan 29.

[Zhang J, Hu ZQ, Turner NJ, Teng SF, Cheng WY, Zhou HY, Zhang L, Hu HW, Wang Q, Badylak SF](#). Perfusion-decellularized skeletal muscle as a three-dimensional scaffold with a vascular network template. *Biomaterials*. 2016 May;89:114-26. Epub 2016 Feb 26.

[Badylak SF](#). Tissue Regeneration. A scaffold immune microenvironment. *Science*. 2016 Apr 15;352(6283):298.

[Loneker AE, Faulk DM, Hussey GS, D'Amore A, Badylak SF](#). Solubilized liver extracellular matrix maintains primary rat hepatocyte phenotype in-vitro. *Journal of Biomedical Materials Research Part A*. 2016 Apr;104(4):957-65. Epub 2016 Jan 13. Erratum in: *Journal of Biomedical Materials Research Part A*. 2016 Jul;104(7):1846-7.

[Han N, Yabroudi MA, Stearns-Reider K, Helkowski W, Sicari BM, Rubin JP, Badylak SF, Boninger ML, Ambrosio F](#). Electrodiagnostic Evaluation of Individuals Implanted With Extracellular Matrix for the Treatment of Volumetric Muscle Injury: Case Series. *Physical Therapy*. 2016 Apr;96(4):540-9. Epub 2015 Nov 12.

[Dearth CL, Keane TJ, Carruthers CA, Reing JE, Huleihel L, Ranallo CA, Kollar EW, Badylak SF](#). The effect of terminal sterilization on the material properties and in vivo remodeling of a porcine dermal biologic scaffold. *Acta Biomaterialia*. 2016 Mar;33:78-87. Epub 2016 Jan 27.

[Swinehart IT, Badylak SF](#). Extracellular matrix bioscaffolds in tissue remodeling and morphogenesis. *Developmental Dynamics*. 2016 Mar;245(3):351-60. Epub 2016 Jan 13. Review.

[Dearth CL, Slivka PF, Stewart SA, Keane TJ, Tay JK, Londono R, Goh Q, Pizza FX, Badylak SF](#). Inhibition of COX1/2 alters the host response and reduces ECM scaffold mediated

constructive tissue remodeling in a rodent model of skeletal muscle injury. *Acta Biomaterialia*. 2016 Feb;31:50-60. Epub 2015 Dec 2.

[Tukmachev D, Forostyak S, Koci Z, Zaviskova K, Vackova I, Vyborny K, Sandvig I, Sandvig A, Medberry CJ, Badylak SF, Sykova E, Kubinova S](#). Injectable Extracellular Matrix Hydrogels as Scaffolds for Spinal Cord Injury Repair. *Tissue Engineering Part A*. 2016 Feb;22(3-4):306-17.

[Londono R, Gorantla VS, Badylak SF](#). Emerging Implications for Extracellular Matrix-Based Technologies in Vascularized Composite Allotransplantation. *Stem Cells International*. 2016;2016:1541823. Epub 2015 Dec 29. Review.

[Massensini AR, Ghuman H, Saldin LT, Medberry CJ, Keane TJ, Nicholls FJ, Velankar SS, Badylak SF, Modo M](#). Concentration-dependent rheological properties of ECM hydrogel for intracerebral delivery to a stroke cavity. *Acta Biomaterialia*. 2015 Nov;27:116-30. Epub 2015 Aug 28.

[Angelozzi M, Miotto M, Penolazzi L, Mazzitelli S, Keane T, Badylak SF, Piva R, Nastruzzi C](#). Composite ECM-alginate microfibers produced by microfluidics as scaffolds with biomineralization potential. *Materials Science and Engineering. C, Materials for Biological Applications*. 2015 Nov 1;56:141-53. Epub 2015 Jun 9.

[Keane TJ, Dziki J, Castelton A, Faulk DM, Messerschmidt V, Londono R, Reing JE, Velankar SS, Badylak SF](#). Preparation and characterization of a biologic scaffold and hydrogel derived from colonic mucosa. *Journal of Biomedical Materials Research Part B, Applied Biomaterials*. 2015 Oct 27. [Epub ahead of print]

[Sicari BM, Dziki JL, Badylak SF](#). Strategies for functional bioscaffold-based skeletal muscle reconstruction. *Annals of Translational Medicine*. 2015 Oct;3(17):256.

[Dearth CL, Keane TJ, Scott JR, Daly KA, Badylak SF](#). A Rodent Model to Evaluate the Tissue Response to a Biological Scaffold When Adjacent to a Synthetic Material. *Tissue Engineering Part A*. 2015 Oct;21(19-20):2526-35. Epub 2015 Aug 24.

[Badylak SF, Freytes DO, Gilbert TW](#). Reprint of: Extracellular matrix as a biological scaffold material: Structure and function. *Acta Biomaterialia*. 2015 Sep;23 Suppl:S17-26. Review.

[Keane TJ, DeWard A, Londono R, Saldin LT, Castleton AA, Carey L, Nieponice A, Lagasse E, Badylak SF](#). Tissue-Specific Effects of Esophageal Extracellular Matrix. *Tissue Engineering Part A*. 2015 Sep;21(17-18):2293-300.

[Turner NJ, Badylak SF](#). The Use of Biologic Scaffolds in the Treatment of Chronic Nonhealing Wounds. *Advanced Wound Care (New Rochelle)*. 2015 Aug 1;4(8):490-500. Review.

[Keane TJ, Swinehart IT, Badylak SF](#). Methods of tissue decellularization used for preparation of biologic scaffolds and in vivo relevance. *Methods*. 2015 Aug;84:25-34. Epub 2015 Mar 16. Review.

[Londono R, Badylak SF](#). Regenerative Medicine Strategies for Esophageal Repair. *Tissue Engineering. Part B, Reviews*. 2015 Aug;21(4):393-410. Epub 2015 Apr 30.

[Keane TJ, Badylak SF](#). The host response to allogeneic and xenogeneic biological scaffold materials. *Journal of Tissue Engineering and Regenerative Medicine*. 2015 May;9(5):504-11. Epub 2014 Feb 18.

[Wolf MT, Dearth CL, Sonnenberg SB, Lobo EG, Badylak SF](#). Naturally derived and synthetic scaffolds for skeletal muscle reconstruction. *Advanced Drug Delivery Reviews*. 2015 Apr;84:208-21. Epub 2014 Aug 29. Review.

[Meng FW, Slivka PF, Dearth CL, Badylak SF](#). Solubilized extracellular matrix from brain and urinary bladder elicits distinct functional and phenotypic responses in macrophages. *Biomaterials*. 2015 Apr;46:131-40. Epub 2015 Jan 24.

[Turner NJ, Pezzone D, Badylak SF](#). Regional variations in the histology of porcine skin. *Tissue Engineering. Part C, Methods*. 2015 Apr;21(4):373-84. Epub 2014 Nov 11.

[Londono R, Badylak SF](#). Biologic scaffolds for regenerative medicine: mechanisms of in vivo remodeling. *Annals of Biomedical Engineering*. 2015 Mar;43(3):577-92. Epub 2014 Sep 12.

[Faulk DM, Wildemann JD, Badylak SF](#). Decellularization and cell seeding of whole liver biologic scaffolds composed of extracellular matrix. *Journal of Clinical and Experimental Hepatology*. 2015 Mar;5(1):69-80. Epub 2014 Mar 28. Review.

[Wolf MT, Vodovotz Y, Tottey S, Brown BN, Badylak SF](#). Predicting in vivo responses to biomaterials via combined in vitro and in silico analysis. *Tissue Engineering. Part C, Methods*. 2015 Feb;21(2):148-59. Epub 2014 Aug 4.

[Zaidi AH, Saldin LT, Kelly LA, Bergal L, Londono R, Kosovec JE, Komatsu Y, Kasi PM, Shetty AA, Keane TJ, Thakkar SJ, Huleihel L, Landreneau RJ, Badylak SF, Jobe BA](#). MicroRNA signature characterizes primary tumors that metastasize in an esophageal adenocarcinoma rat model. *PLoS One*. 2015 Mar 31;10(3):e0122375. eCollection 2015.

[Shin SS, Grandhi R, Henchir J, Yan HQ, Badylak SF, Dixon CE](#). Neuroprotective effects of collagen matrix in rats after traumatic brain injury. *Restorative Neurology and Neuroscience*. 2015;33(2):95-104.

[Carruthers CA, Dearth CL, Reing JE, Kramer CR, Gagne DH, Crapo PM, Garcia O Jr, Badhwar A, Scott JR, Badylak SF](#). Histologic characterization of acellular dermal matrices in a porcine model of tissue expander breast reconstruction. *Tissue Engineering Part A*. 2015 Jan;21(1-2):35-44. Epub 2014 Sep 29.

[Gentile NE, Stearns KM, Brown EH, Rubin JP, Boninger ML, Dearth CL, Ambrosio F, Badylak SF](#). Targeted rehabilitation after extracellular matrix scaffold transplantation for the treatment of volumetric muscle loss. *American Journal of Physical and Medical Rehabilitation*. 2014 Nov;93(11 Suppl 3):S79-87. Review.

[Faulk DM, Londono R, Wolf MT, Ranallo CA, Carruthers CA, Wildemann JD, Dearth CL, Badylak SF](#). ECM hydrogel coating mitigates the chronic inflammatory response to polypropylene mesh. *Biomaterials*. 2014 Oct;35(30):8585-95. Epub 2014 Jul 16.

[Sicari BM, Dziki JL, Siu BF, Medberry CJ, Dearth CL, Badylak SF](#). The promotion of a constructive macrophage phenotype by solubilized extracellular matrix. *Biomaterials*. 2014 Oct;35(30):8605-12. 2014.06.060. Epub 2014 Jul 16.

[Carey LE, Dearth CL, Johnson SA, Londono R, Medberry CJ, Daly KA, Badylak SF](#). In vivo degradation of ¹⁴C-labeled porcine dermis biologic scaffold. *Biomaterials*. 2014 Sep;35(29):8297-304. Epub 2014 Jul 3.

[Faulk DM, Johnson SA, Zhang L, Badylak SF](#). Role of the extracellular matrix in whole organ engineering. *Journal of Cellular Physiology*. 2014 Aug;229(8):984-9. Review.

[Sanz AF, Hoppo T, Witteman BP, Brown BN, Gilbert TW, Badylak SF, Jobe BA, Nieponice A](#). In vivo assessment of a biological occluder for NOTES gastrotomy closure. *Surgical Laparoscopy, Endoscopy and Percutaneous Techniques*. 2014 Aug;24(4):322-6.

[Wolf MT, Dearth CL, Ranallo CA, LoPresti ST, Carey LE, Daly KA, Brown BN, Badylak SF](#). Macrophage polarization in response to ECM coated polypropylene mesh. *Biomaterials*. 2014 Aug;35(25):6838-49. Epub 2014 May 21.

[Keane TJ, Badylak SF](#). Biomaterials for tissue engineering applications. *Seminars in Pediatric Surgery*. 2014 Jun;23(3):112-8. Epub 2014 Jun 5.

[Badylak SF](#). Decellularized Allogeneic and Xenogeneic Tissue as a Bioscaffold for Regenerative Medicine: Factors that Influence the Host Response. *Annals of Biomedical Engineering*. 2014 Jul;42(7):1517-27. Epub 2014 Jan 9. Review.

Billiar

[Brown JB, Gestring ML, Leeper CM, Sperry JL, Peitzman AB, Billiar TR, Gaines BA](#). The value of the injury severity score in pediatric trauma: Time for a new definition of severe injury? *Journal of Trauma and Acute Care Surgery*. 2017 Jun;82(6):995-1001.

[Moore FA, Moore EE, Billiar TR, Vodovotz Y, Banerjee A, Moldawer LL](#). The Role of NIGMS P50 Sponsored Team Science in Our Understanding of Multiple Organ Failure. *Journal of Trauma and Acute Care Surgery*. 2017 May 22. [Epub ahead of print]

[Li Z, Fan EK, Liu J, Scott MJ, Li Y, Li S, Xie W, Billiar TR, Wilson MA, Jiang Y, Wang P, Fan J](#). Cold-inducible RNA-binding protein through TLR4 signaling induces mitochondrial DNA fragmentation and regulates macrophage cell death after trauma. *Cell Death and Disease*. 2017 May 11;8(5):e2775.

[Zhou Q, Rosengart MR, Billiar TR, Peitzman AB, Sperry JL, Brown JB](#). Factors Associated With Nontransfer in Trauma Patients Meeting American College of Surgeons' Criteria for Transfer at Nontertiary Centers. *JAMA Surgery*. 2017 Apr 1;152(4):369-376.

[Wang D, Taylor GM, Gilbert JR, Losee JE, Sodhi CP, Hackam DJ, Billiar TR, Cooper GM](#). Enhanced Calvarial Bone Healing in CD11c-TLR4^{-/-} and MyD88^{-/-} Mice. *Plastic and Reconstructive Surgery*. 2017 Apr;139(4):933e-940e.

[Ding X, Jin S, Tong Y, Jiang X, Chen Z, Mei S, Zhang L, Billiar TR, Li Q.](#) TLR4 signaling induces TLR3 up-regulation in alveolar macrophages during acute lung injury. *Scientific Reports*. 2017 Feb 15;7:34278.

[Xu H, Turnquist HR, Hoffman R, Billiar TR.](#) Role of the IL-33-ST2 axis in sepsis. *Military Medical Research*. 2017 Feb 2;4:3. eCollection 2017. Review.

[Harris RA, Bajo M, Bell RL, Blednov YA, Varodayan FP, Truitt JM, de Guglielmo G, Lasek AW, Logrip ML, Vendruscolo LF, Roberts AJ, Roberts E, George O, Mayfield J, Billiar TR, Hackam DJ, Mayfield RD, Koob GF, Roberto M, Homanics GE.](#) Genetic and Pharmacologic Manipulation of TLR4 Has Minimal Impact on Ethanol Consumption in Rodents. *Journal of Neuroscience*. 2017 Feb 1;37(5):1139-1155. Epub 2016 Dec 16.

[Brown JB, Gestring ML, Guyette FX, Rosengart MR, Stassen NA, Forsythe RM, Billiar TR, Peitzman AB, Sperry JL.](#) External validation of the Air Medical Prehospital Triage score for identifying trauma patients likely to benefit from scene helicopter transport. *Journal of Trauma and Acute Care Surgery*. 2017 Feb;82(2):270-279.

[Kutcher ME, Sperry JL, Rosengart MR, Mohan D, Hoffman MK, Neal MD, Alarcon LH, Watson GA, Puyana JC, Bauzá GM, Schuchert VD, Fombona A, Zhou T, Zolin SJ, Becher RD, Billiar TR, Forsythe RM, Zuckerbraun BS, Peitzman AB.](#) Surgical rescue: The next pillar of acute care surgery. *Journal of Trauma and Acute Care Surgery*. 2017 Feb;82(2):280-286.

[Zettel KR, Dyer M, Raval JS, Wu X, Klune JR, Gutierrez A, Triulzi DJ, Billiar TR, Neal MD.](#) Aged Human Stored Red Blood Cell Supernatant Inhibits Macrophage Phagocytosis in an HMGB1 Dependent Manner After Trauma in a Murine Model. *Shock*. 2017 Feb;47(2):217-224.

[Sun Q, Loughran P, Shapiro R, Shrivastava IH, Antoine DJ, Li T, Yan Z, Fan J, Billiar TR, Scott MJ.](#) Redox-dependent regulation of hepatocyte absent in melanoma 2 inflammasome activation in sterile liver injury in mice. *Hepatology*. 2017 Jan;65(1):253-268. Epub 2016 Nov 29.

[Scott MJ, Billiar TR, Stoyanovsky DA.](#) N-tert-butylmethanimine N-oxide is an efficient spin-trapping probe for EPR analysis of glutathione thyl radical. *Scientific Reports*. 2016 Dec 12;6:38773.

[Kang R, Zeng L, Xie Y, Yan Z, Zhou B, Cao L, Klionsky DJ, Tracey KJ, Li J, Wang H, Billiar TR, Jiang J, Tang D.](#) A novel PINK1- and PARK2-dependent protective neuroimmune pathway in lethal sepsis. *Autophagy*. 2016 Dec;12(12):2374-2385. Epub 2016 Oct 18.

[Namas RA, Almahmoud K, Mi Q, Ghuma A, Namas R, Zaaqoq A, Zhu X, Abdul-Malak O, Sperry J, Zamora R, Billiar TR, Vodovotz Y.](#) Individual-specific principal component analysis of circulating inflammatory mediators predicts early organ dysfunction in trauma patients. *Journal of Critical Care*. 2016 Dec;36:146-153. Epub 2016 Jul 11.

[Korff S, Loughran P, Cai C, Fan J, Elson G, Shang L, Pires SS, Lee YS, Guardado J, Scott M, Billiar TR.](#) Tlr2 on Bone Marrow and Non-Bone Marrow Derived Cells Regulates Inflammation and Organ Injury in Cooperation with Tlr4 During Resuscitated Hemorrhagic Shock. *Shock*. 2016 Nov;46(5):519-526.

[Xie M, Yu Y, Kang R, Zhu S, Yang L, Zeng L, Sun X, Yang M, Billiar TR, Wang H, Cao L, Jiang J, Tang D.](#) PKM2-dependent glycolysis promotes NLRP3 and AIM2 inflammasome activation. *Nature Communications*. 2016 Oct 25;7:13280.

[Zhang T, Xue L, Li L, Tang C, Wan Z, Wang R, Tan J, Tan Y, Han H, Tian R, Billiar TR, Tao WA, Zhang Z.](#) BNIP3 Protein Suppresses PINK1 Kinase Proteolytic Cleavage to Promote Mitophagy. *Journal of Biological Chemistry*. 2016 Oct 7;291(41):21616-21629. Epub 2016 Aug 15.

[Chen R, Xie Y, Zhong X, Fu Y, Huang Y, Zhen Y, Pan P, Wang H, Bartlett DL, Billiar TR, Lotze MT, Zeh HJ 3rd, Fan XG, Tang D, Kang R.](#) Novel chemokine-like activities of histones in tumor metastasis. *Oncotarget*. 2016 Sep 20;7(38):61728-61740.

[Vogel S, Rath D, Borst O, Mack A, Loughran P, Lotze MT, Neal MD, Billiar TR, Gawaz M.](#) Platelet-derived high-mobility group box 1 promotes recruitment and suppresses apoptosis of monocytes. *Biochemical and Biophysical Research Communications*. 2016 Sep 9;478(1):143-8. Epub 2016 Jul 20.

[Li Z, Scott MJ, Fan EK, Li Y, Liu J, Xiao G, Li S, Billiar TR, Wilson MA, Jiang Y, Fan J.](#) Tissue damage negatively regulates LPS-induced macrophage necroptosis. *Cell Death and Differentiation*. 2016 Sep 1;23(9):1428-47. Epub 2016 Mar 4.

[Buchman TG, Billiar TR, Elster E, Kirk AD, Rimawi RH, Vodovotz Y, Zehnbauser BA.](#) Precision Medicine for Critical Illness and Injury. *Critical Care Medicine*. 2016 Sep;44(9):1635-8.

[Brown JB, Lerner EB, Sperry JL, Billiar TR, Peitzman AB, Guyette FX.](#) Prehospital lactate improves accuracy of prehospital criteria for designating trauma activation level. *Journal of Trauma and Acute Care Surgery*. 2016 Sep;81(3):445-52.

[He X, Qian Y, Li Z, Fan EK, Li Y, Wu L, Billiar TR, Wilson MA, Shi X, Fan J.](#) TLR4-Upregulated IL-1 β and IL-1RI Promote Alveolar Macrophage Pyroptosis and Lung Inflammation through an Autocrine Mechanism. *Scientific Reports*. 2016 Aug 16;6:31663.

[Brown JB, Gestring ML, Guyette FX, Rosengart MR, Stassen NA, Forsythe RM, Billiar TR, Peitzman AB, Sperry JL.](#) Development and Validation of the Air Medical Prehospital Triage Score for Helicopter Transport of Trauma Patients. *Annals of Surgery*. 2016 Aug;264(2):378-85.

[Zhang L, Xiang W, Wang G, Yan Z, Zhu Z, Guo Z, Sengupta R, Chen AF, Loughran PA, Lu B, Wang O, Billiar TR.](#) Interferon β (IFN- β) Production during the Double-stranded RNA (dsRNA) Response in Hepatocytes Involves Coordinated and Feedforward Signaling through Toll-like Receptor 3 (TLR3), RNA-dependent Protein Kinase (PKR), Inducible Nitric Oxide Synthase (iNOS), and Src Protein. *Journal of Biological Chemistry*. 2016 Jul 15;291(29):15093-107. Epub 2016 May 17.

[Brown JB, Rosengart MR, Forsythe RM, Reynolds BR, Gestring ML, Hallinan WM, Peitzman AB, Billiar TR, Sperry JL.](#) Not all prehospital time is equal: Influence of scene time on mortality. *Journal of Trauma and Acute Care Surgery*. 2016 Jul;81(1):93-100.

[Sun Q, Wang Q, Scott MJ, Billiar TR](#). Immune Activation in the Liver by Nucleic Acids. *Journal of Clinical and Translational Hepatology*. 2016 Jun 28;4(2):151-7. Epub 2016 Jun 15. Review.

[Lewis AJ, Billiar TR, Rosengart MR](#). Biology and Metabolism of Sepsis: Innate Immunity, Bioenergetics, and Autophagy. *Surgical Infections (Larchmt)*. 2016 Jun;17(3):286-93. Epub 2016 Apr 19.

[Zhang J, Xu P, Song P, Wang H, Zhang Y, Hu Q, Wang G, Zhang S, Yu Q, Billiar TR, Wang C, Zhang J](#). CCL2-CCR2 signaling promotes hepatic ischemia/reperfusion injury. *Journal of Surgical Research*. 2016 May 15;202(2):352-62. Epub 2016 Mar 3.

[Brown JB, Leeper CM, Sperry JL, Peitzman AB, Billiar TR, Gaines BA, Gestring ML](#). Helicopters and injured kids: Improved survival with scene air medical transport in the pediatric trauma population. *Journal of Trauma and Acute Care Surgery*. 2016 May;80(5):702-10.

[Tang Y, Zhao X, Antoine D, Xiao X, Wang H, Andersson U, Billiar TR, Tracey KJ, Lu B](#). Regulation of Posttranslational Modifications of HMGB1 During Immune Responses. *Antioxidants and Redox Signaling*. 2016 Apr 20;24(12):620-34. Epub 2016 Feb 5.

[Deng M, Ma T, Yan Z, Zettel KR, Scott MJ, Liao H, Frank A, Morelli AE, Sodhi CP, Hackam DJ, Billiar TR](#). Toll-like Receptor 4 Signaling on Dendritic Cells Suppresses Polymorphonuclear Leukocyte CXCR2 Expression and Trafficking via Interleukin 10 During Intra-abdominal Sepsis. *Journal of Infectious Diseases*. 2016 Apr 15;213(8):1280-8. Epub 2015 Nov 24.

[Brown JB, Gestring ML, Guyette FX, Rosengart MR, Stassen NA, Forsythe RM, Billiar TR, Peitzman AB, Sperry JL](#). Helicopter transport improves survival following injury in the absence of a time-saving advantage. *Surgery*. 2016 Mar;159(3):947-59. Epub 2015 Oct 23.

[Brown JB, Gestring ML, Stassen NA, Forsythe RM, Billiar TR, Peitzman AB, Sperry JL](#). Geographic Variation in Outcome Benefits of Helicopter Transport for Trauma in the United States: A Retrospective Cohort Study. *Annals of Surgery*. 2016 Feb;263(2):406-12.

[Fritz M, Klawonn AM, Nilsson A, Singh AK, Zajdel J, Wilhelms DB, Lazarus M, Löfberg A, Jaarola M, Kugelberg UÖ, Billiar TR, Hackam DJ, Sodhi CP, Breyer MD, Jakobsson J, Schwaninger M, Schütz G, Parkitna JR, Saper CB, Blomqvist A, Engblom D](#). Prostaglandin-dependent modulation of dopaminergic neurotransmission elicits inflammation-induced aversion in mice. *Journal of Clinical Investigation*. 2016 Feb;126(2):695-705.

[Wang H, Wang G, Zhang L, Zhang J, Zhang J, Wang Q, Billiar TR](#). ADAR1 Suppresses the Activation of Cytosolic RNA-Sensing Signaling Pathways to Protect the Liver from Ischemia/Reperfusion Injury. *Scientific Reports*. 2016 Feb 1;6:20248.

[Jin S, Chen Z, Ding X, Zhao X, Jiang X, Tong Y, Billiar TR, Li Q](#). Mechanical Ventilation Augments Poly(i:c)Induced Lung Injury via a Wisp1-Integrin β 3 Dependent Pathway in Mice. *Molecular Medicine*. 2016 Jan 6. [Epub ahead of print]

[Namas RA, Vodovotz Y, Almahmoud K, Abdul-Malak O, Zaaqoq A, Namas R, Mi Q, Barclay D, Zuckerbraun B, Peitzman AB, Sperry J, Billiar TR](#). Temporal Patterns of Circulating

Inflammation Biomarker Networks Differentiate Susceptibility to Nosocomial Infection Following Blunt Trauma in Humans. *Annals of Surgery*. 2016 Jan;263(1):191-8.

[Guo Y, Hu B, Xie Y, Billiar TR, Sperry JL, Huang M, Xie W](#). Regulation of drug-metabolizing enzymes by local and systemic liver injuries. *Expert Opinion on Drug Metabolism and Toxicology*. 2016;12(3):245-51. Epub 2016 Jan 28.

[Brown JB, Rosengart MR, Billiar TR, Peitzman AB, Sperry JL](#). Geographic distribution of trauma centers and injury-related mortality in the United States. *Journal of Trauma and Acute Care Surgery*. 2016 Jan;80(1):42-9; discussion 49-50.

[Namas RA, Mi Q, Namas R, Almahmoud K, Zaaqoq AM, Abdul-Malak O, Azhar N, Day J, Abboud A, Zamora R, Billiar TR, Vodovotz Y](#). Insights into the Role of Chemokines, Damage-Associated Molecular Patterns, and Lymphocyte-Derived Mediators from Computational Models of Trauma-Induced Inflammation. *Antioxidants and Redox Signaling*. 2015 Dec 10;23(17):1370-87. Review.

[Cai J, Yuan H, Wang Q, Yang H, Al-Abed Y, Hua Z, Wang J, Chen D, Wu J, Lu B, Pribis JP, Jiang W, Yang K, Hackam DJ, Tracey KJ, Billiar TR, Chen AF](#). HMGB1-Driven Inflammation and Intimal Hyperplasia After Arterial Injury Involves Cell-Specific Actions Mediated by TLR4. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2015 Dec;35(12):2579-93. Epub 2015 Oct 29.

[Vogel S, Bodenstein R, Chen Q, Feil S, Feil R, Rheinlaender J, Schäffer TE, Bohn E, Frick JS, Borst O, Münzer P, Walker B, Markel J, Csanyi G, Pagano PJ, Loughran P, Jessup ME, Watkins SC, Bullock GC, Sperry JL, Zuckerbraun BS, Billiar TR, Lotze MT, Gawaz M, Neal MD](#). Platelet-derived HMGB1 is a critical mediator of thrombosis. *Journal of Clinical Investigation*. 2015 Dec;125(12):4638-54. Epub 2015 Nov 9.

[Hu B, Guo Y, Garbacz WG, Jiang M, Xu M, Huang H, Tsung A, Billiar TR, Ramakrishnan SK, Shah YM, Lam KS, Huang M, Xie W](#). Fatty acid binding protein-4 (FABP4) is a hypoxia inducible gene that sensitizes mice to liver ischemia/reperfusion injury. *Journal of Hepatology*. 2015 Oct;63(4):855-62. Epub 2015 Jun 10. pii: S0168-8278(15)00388-8.

[Pribis JP, Al-Abed Y, Yang H, Gero D, Xu H, Montenegro MF, Bauer EM, Kim S, Chavan SS, Cai C, Li T, Szoleczky P, Szabo C, Tracey KJ, Billiar TR](#). The HIV protease inhibitor saquinavir inhibits HMGB1 driven inflammation by targeting the interaction of cathepsin V with TLR4/MyD88. *Molecular Medicine*. 2015 Sep 2. [Epub ahead of print]

[Li Y, Li XH, Yu ZX, Cai JJ, Billiar TR, Chen AF, Lv B, Chen ZY, Huang ZJ, Yang GP, Song J, Liu B, Yuan H](#). HIV protease inhibitors in pulmonary hypertension: rationale and design of a pilot trial in idiopathic pulmonary arterial hypertension. *Pulmonary Circulation*. 2015 Sep;5(3):538-46.

[Chai X, Guo Y, Jiang M, Hu B, Li Z, Fan J, Deng M, Billiar TR, Kucera HR, Gaikwad NW, Xu M, Lu P, Yan J, Fu H, Liu Y, Yu L, Huang M, Zeng S, Xie W](#). Oestrogen sulfotransferase ablation sensitizes mice to sepsis. *Nature Communications*. 2015 Aug 10;6:7979.

[Peitzman AB, Sperry JL, Kutcher ME, Zuckerbraun BS, Forsythe RM, **Billiar TR**, Alarcon L, Rosengart MR, Mohan D, Watson G, Puyana JC, Bauza G, Schuchert VD, Neal MD.](#) Redefining acute care surgery: Surgical rescue. *Journal of Trauma and Acute Care Surgery*. 2015 Aug;79(2):327.

[Almahmoud K, Namas RA, Abdul-Malak O, Zaaqoq AM, Zamora R, Zuckerbraun BS, Sperry J, Peitzman AB, **Billiar TR**, Vodovotz Y.](#) Impact of Injury Severity on Dynamic Inflammation Networks Following Blunt Trauma. *Shock*. 2015 Aug;44(2):101-9.

[Kohama K, Yamashita H, Aoyama-Ishikawa M, Takahashi T, **Billiar TR**, Nishimura T, Kotani J, Nakao A.](#) Hydrogen inhalation protects against acute lung injury induced by hemorrhagic shock and resuscitation. *Surgery*. 2015 Aug;158(2):399-407. Epub 2015 May 14.

[Almahmoud K, Namas RA, Zaaqoq AM, Abdul-Malak O, Namas R, Zamora R, Sperry J, **Billiar TR**, Vodovotz Y.](#) Prehospital Hypotension Is Associated With Altered Inflammation Dynamics and Worse Outcomes Following Blunt Trauma in Humans. *Critical Care Medicine*. 2015 Jul;43(7):1395-404.

[Brown JB, Guyette FX, Neal MD, Claridge JA, Daley BJ, Harbrecht BG, Miller RS, Phelan HA, Adams PW, Early BJ, Peitzman AB, **Billiar TR**, Sperry JL.](#) Taking the Blood Bank to the Field: The Design and Rationale of the Prehospital Air Medical Plasma (PAMPer) Trial. *Prehospital Emergency Care*. 2015 Jul-Sep;19(3):343-50. Epub 2015 Feb 6.

[Guo Y, Hu B, Huang H, Tsung A, Gaikwad NW, Xu M, Jiang M, Ren S, Fan J, **Billiar TR**, Huang M, Xie W.](#) Estrogen Sulfotransferase Is an Oxidative Stress-responsive Gene That Gender-specifically Affects Liver Ischemia/Reperfusion Injury. *Journal of Biological Chemistry*. 2015 Jun 5;290(23):14754-64. Epub 2015 Apr 28.

[Buchholz BM, Shapiro RA, Vodovotz Y, **Billiar TR**, Sodhi CP, Hackam DJ, Bauer AJ.](#) Myocyte TLR4 enhances enteric and systemic inflammation driving late murine endotoxic ileus. *American Journal of Physiology. Gastrointestinal and Liver Physiology*. 2015 May 15;308(10):G852-62. Epub 2015 Mar 6.

[Sodhi CP, Jia H, Yamaguchi Y, Lu P, Good M, Egan C, Ozolek J, Zhu X, **Billiar TR**, Hackam DJ.](#) Intestinal Epithelial TLR-4 Activation Is Required for the Development of Acute Lung Injury after Trauma/Hemorrhagic Shock via the Release of HMGB1 from the Gut. *Journal of Immunology*. 2015 May 15;194(10):4931-9. Epub 2015 Apr 10.

[Brown JB, Cohen MJ, Minei JP, Maier RV, West MA, **Billiar TR**, Peitzman AB, Moore EE, Cuschieri J, Sperry JL; Inflammation and the Host Response to Injury Investigators.](#) Pretrauma center red blood cell transfusion is associated with reduced mortality and coagulopathy in severely injured patients with blunt trauma. *Annals of Surgery*. 2015 May;261(5):997-1005.

[Brown JB, Sperry JL, Fombona A, **Billiar TR**, Peitzman AB, Guyette FX.](#) Pre-trauma center red blood cell transfusion is associated with improved early outcomes in air medical trauma patients. *Journal of the American College of Surgeons*. 2015 May;220(5):797-808. Epub 2015 Jan 24.

[Brown D, Namas RA, Almahmoud K, Zaaqoq A, Sarkar J, Barclay DA, Yin J, Ghuma A, Abboud A, Constantine G, Nieman G, Zamora R, Chang SC, Billiar TR, Vodovotz Y.](#) Trauma in silico: Individual-specific mathematical models and virtual clinical populations. *Science Translational Medicine*. 2015 Apr 29;7(285):285ra61.

[Wang D, Gilbert JR, Shaw MA, Shakir S, Losee JE, Billiar TR, Cooper GM.](#) Toll-like receptor 4 mediates the regenerative effects of bone grafts for calvarial bone repair. *Tissue Engineering Part A*. 2015 Apr;21(7-8):1299-308.

[Mcdonald KA, Huang H, Tohme S, Loughran P, Ferrero K, Billiar T, Tsung A.](#) Toll-like receptor 4 (TLR4) antagonist eritoran tetrasodium attenuates liver ischemia and reperfusion injury through inhibition of high-mobility group box protein B1 (HMGB1) signaling. *Molecular Medicine*. 2015 Mar 13;20:639-48.

[Walko TD 3rd, Di Caro V, Piganelli J, Billiar TR, Clark RS, Aneja RK.](#) Poly(ADP-ribose) polymerase 1-sirtuin 1 functional interplay regulates LPS-mediated high mobility group box 1 secretion. *Molecular Medicine*. 2015 Mar 12;20:612-24.

[Zhu X, Messer JS, Wang Y, Lin F, Cham CM, Chang J, Billiar TR, Lotze MT, Boone DL, Chang EB.](#) Cytosolic HMGB1 controls the cellular autophagy/apoptosis checkpoint during inflammation. *Journal of Clinical Investigation*. 2015 Mar 2;125(3):1098-110. Epub 2015 Feb 2.

[Zolin SJ, Vodovotz Y, Forsythe RM, Rosengart MR, Namas R, Brown JB, Peitzman AP, Billiar TR, Sperry JL.](#) The early evolving sex hormone environment is associated with significant outcome and inflammatory response differences after injury. *Journal of Trauma and Acute Care Surgery*. 2015 Mar;78(3):451-7; discussion 457-8.

[Kesinger MR, Kumar RG, Wagner AK, Puyana JC, Peitzman AP, Billiar TR, Sperry JL.](#) Hospital-acquired pneumonia is an independent predictor of poor global outcome in severe traumatic brain injury up to 5 years after discharge. *Journal of Trauma and Acute Care Surgery*. 2015 Feb;78(2):396-402.

[Brown JB, Gestring ML, Forsythe RM, Stassen NA, Billiar TR, Peitzman AB, Sperry JL.](#) Systolic blood pressure criteria in the National Trauma Triage Protocol for geriatric trauma: 110 is the new 90. *Journal of Trauma and Acute Care Surgery*. 2015 Feb;78(2):352-9.

[Deng M, Loughran PA, Zhang L, Scott MJ, Billiar TR.](#) Shedding of the tumor necrosis factor (TNF) receptor from the surface of hepatocytes during sepsis limits inflammation through cGMP signaling. *Science Signaling*. 2015 Jan 27;8(361):ra11.

[Yang H, Wang H, Ju Z, Ragab AA, Lundbäck P, Long W, Valdes-Ferrer SI, He M, Pribis JP, Li J, Lu B, Gero D, Szabo C, Antoine DJ, Harris HE, Golenbock DT, Meng J, Roth J, Chavan SS, Andersson U, Billiar TR, Tracey KJ, Al-Abed Y.](#) MD-2 is required for disulfide HMGB1-dependent TLR4 signaling. *Journal of Experimental Medicine*. 2015 Jan 12;212(1):5-14. Epub 2015 Jan 5.

[Wang J, Vodovotz Y, Fan L, Li Y, Liu Z, Namas R, Barclay D, Zamora R, Billiar TR, Wilson MA, Fan J, Jiang Y.](#) Injury-induced MRP8/MRP14 stimulates IP-10/CXCL10 in monocytes/macrophages. *FASEB Journal*. 2015 Jan;29(1):250-62. Epub 2014 Oct 23.

[Ruan X, Darwiche SS, Cai C, Scott MJ, Pape HC, Billiar TR](#). Anti-HMGB1 monoclonal antibody ameliorates immunosuppression after peripheral tissue trauma: attenuated T-lymphocyte response and increased splenic CD11b (+) Gr-1 (+) myeloid-derived suppressor cells require HMGB1. *Mediators of Inflammation*. 2015;2015:458626. Epub 2015 Jan 29.

[Brown JB, Neal MD, Guyette FX, Peitzman AB, Billiar TR, Zuckerbraun BS, Sperry JL](#). Design of the Study of Tranexamic Acid during Air Medical Prehospital Transport (STAAMP) Trial: Addressing the Knowledge Gaps. *Prehospital Emergency Care*. 2015 January-March;19(1):79-86. Epub 2014 Jul 30.

[Kang R, Chen R, Zhang Q, Hou W, Wu S, Cao L, Huang J, Yu Y, Fan XG, Yan Z, Sun X, Wang H, Wang Q, Tsung A, Billiar TR, Zeh HJ 3rd, Lotze MT, Tang D](#). HMGB1 in health and disease. *Molecular Aspects of Medicine*. 2014 Dec;40:1-116. Epub 2014 Jul 8. Review.

[Namas RA, Vodovotz Y, Almahmoud K, Abdul-Malak O, Zaaqoq A, Namas R, Mi Q, Barclay D, Zuckerbraun B, Peitzman AB, Sperry J, Billiar TR](#). Temporal Patterns of Circulating Inflammation Biomarker Networks Differentiate Susceptibility to Nosocomial Infection Following Blunt Trauma in Humans. *Annals of Surgery*. 2016 Jan;263(1):191-8.

[Summers JL, Ziembicki JA, Corcos AC, Peitzman AB, Billiar TR, Sperry JL](#). Characterization of sex dimorphism following severe thermal injury. *Journal of Burn Care and Research*. 2014 Nov-Dec;35(6):484-90.

[Wen Z, Fan L, Li Y, Zou Z, Scott MJ, Xiao G, Li S, Billiar TR, Wilson MA, Shi X, Fan J](#). Neutrophils counteract autophagy-mediated anti-inflammatory mechanisms in alveolar macrophage: role in posthemorrhagic shock acute lung inflammation. *Journal of Immunology*. 2014 Nov 1;193(9):4623-33. Epub 2014 Sep 29.

[Tsung A, Tohme S, Billiar TR](#). High-mobility group box-1 in sterile inflammation. *Internal Medicine*. 2014 Nov;276(5):425-43. Review.

[Kang R, Lotze MT, Zeh HJ, Billiar TR, Tang D](#). Cell death and DAMPs in acute pancreatitis. *Molecular Medicine*. 2014 Oct 29;20:466-77.

[Sperry JL, Zolin S, Zuckerbraun BS, Vodovotz Y, Namas R, Neal MD, Ferrell RE, Rosengart MR, Peitzman AB, Billiar TR](#). X chromosome-linked IRAK-1 polymorphism is a strong predictor of multiple organ failure and mortality postinjury. *Annals of Surgery*. 2014 Oct;260(4):698-703; discussion 703-5.

[Ding N, Chen G, Hoffman R, Loughran PA, Sodhi CP, Hackam DJ, Billiar TR, Neal MD](#). Toll-like receptor 4 regulates platelet function and contributes to coagulation abnormality and organ injury in hemorrhagic shock and resuscitation. *Circulation. Cardiovascular Genetics*. 2014 Oct;7(5):615-24. Epub 2014 Jul 21.

[Yang S, Deng P, Zhu Z, Zhu J, Wang G, Zhang L, Chen AF, Wang T, Sarkar SN, Billiar TR, Wang Q](#). Adenosine deaminase acting on RNA 1 limits RIG-I RNA detection and suppresses IFN production responding to viral and endogenous RNAs. *Journal of Immunology*. 2014 Oct 1;193(7):3436-45. Epub 2014 Aug 29.

[Weis JJ, Cunningham KE, Forsythe RM, Billiar TR, Peitzman AB, Sperry JL](#). The importance of empiric abdominal computed tomography after urgent laparotomy for trauma: do they reveal unexpected injuries? *Surgery*. 2014 Oct;156(4):979-85.

[Cai C, Huang H, Whelan S, Liu L, Kautza B, Luciano J, Wang G, Chen G, Stratimirovic S, Tsung A, Billiar TR, Zuckerbraun BS](#). Benzyl alcohol attenuates acetaminophen-induced acute liver injury in a Toll-like receptor-4-dependent pattern in mice. *Hepatology*. 2014 Sep;60(3):990-1002. Epub 2014 Jul 14.

[Zhang Y, Zhang J, Korff S, Ayoob F, Vodovotz Y, Billiar TR](#). Delayed neutralization of interleukin 6 reduces organ injury, selectively suppresses inflammatory mediator, and partially normalizes immune dysfunction following trauma and hemorrhagic shock. *Shock*. 2014 Sep;42(3):218-27.

[Tang D, Kang R, Van Houten B, Zeh HJ, Billiar TR, Lotze MT](#). High mobility group box 1 (HMGB1) phenotypic role revealed with stress. *Molecular Medicine*. 2014 Aug 19;20:359-62.

[Neal MD, Brown JB, Moore EE, Cuschieri J, Maier RV, Minei JP, Billiar TR, Peitzman AB, Cohen MJ, Sperry JL; Inflammation and Host Response to Injury Investigators](#). Prehospital use of nonsteroidal anti-inflammatory drugs (NSAIDs) is associated with a reduced incidence of trauma-induced coagulopathy. *Annals of Surgery*. 2014 Aug;260(2):378-82.

[Xu J, Jiang Y, Wang J, Shi X, Liu Q, Liu Z, Li Y, Scott MJ, Xiao G, Li S, Fan L, Billiar TR, Wilson MA, Fan J](#). Macrophage endocytosis of high-mobility group box 1 triggers pyroptosis. *Cell Death and Differentiation*. 2014 Aug;21(8):1229-39. Epub 2014 Apr 25.

[Yang L, Xie M, Yang M, Yu Y, Zhu S, Hou W, Kang R, Lotze MT, Billiar TR, Wang H, Cao L, Tang D](#). PKM2 regulates the Warburg effect and promotes HMGB1 release in sepsis. *Nature Communication*. 2014 Jul 14;5:4436.

[Brown JB, Forsythe RM, Stassen NA, Peitzman AB, Billiar TR, Sperry JL, Gestring ML](#). Evidence-based improvement of the National Trauma Triage Protocol: The Glasgow Coma Scale versus Glasgow Coma Scale motor subscale. *Journal of Trauma and Acute Care Surgery*. 2014 Jul;77(1):95-102; discussion 101-2.

[Yang KC, Zhou MJ, Sperry JL, Rong L, Zhu XG, Geng L, Wu W, Zhao G, Billiar TR, Feng QM](#). Significant sex-based outcome differences in severely injured Chinese trauma patients. *Shock*. 2014 Jul;42(1):11-5.

Brown

[Huleihel L, Bartolacci JG, Dziki JL, Vorobyov T, Arnold B, Scarritt ME, Pineda Molina C, LoPresti ST, Brown BN, Badylak SE](#). Matrix-Bound Nanovesicles Recapitulate Extracellular Matrix Effects on Macrophage Phenotype. *Tissue Engineering Part A*. 2017 Jun 30. [Epub ahead of print]

[Brown BN, Haschak MJ, Lopresti ST, Stahl EC](#). Effects of age-related shifts in cellular function and local microenvironment upon the innate immune response to implants. *Seminars in Immunology*. 2017 May 20. pii: S1044-5323(17)30001-5. [Epub ahead of print] Review.

[Hachim D, Wang N, Lopresti ST, Stahl EC, Umeda YU, Rege RD, Carey ST, Mani D, Brown BN](#). Effects of aging upon the host response to implants. *Journal of Biomedical Materials Research, Part A*. 2017 May;105(5):1281-1292. Epub 2017 Feb 14.

[Hachim D, LoPresti ST, Yates CC, Brown BN](#). Shifts in macrophage phenotype at the biomaterial interface via IL-4 eluting coatings are associated with improved implant integration. *Biomaterials*. 2017 Jan;112:95-107. Epub 2016 Oct 11.

[Brown BN, Buckenmeyer MJ, Prest TA](#). Preparation of Decellularized Biological Scaffolds for 3D Cell Culture. *Methods in Molecular Biology*. 2017;1612:15-27.

[Hoffman B, Martin M, Brown BN, Bonassar LJ, Cheetham J](#). Biomechanical and biochemical characterization of porcine tracheal cartilage. *Laryngoscope*. 2016 Oct;126(10):E325-31. Epub 2016 Jan 30.

[Nolfi AL, Brown BN, Liang R, Palcsey SL, Bonidie MJ, Abramowitch SD, Moalli PA](#). Host response to synthetic mesh in women with mesh complications. *American Journal of Obstetrics and Gynecology*. 2016 Aug;215(2):206.e1-8. Epub 2016 Apr 16.

[Brown BN, Mani D, Nolfi AL, Liang R, Abramowitch SD, Moalli PA](#). Characterization of the host inflammatory response following implantation of prolapse mesh in rhesus macaque. *American Journal of Obstetrics and Gynecology*. 2015 Nov;213(5):668.e1-10. Epub 2015 Aug 7.

[Rao J, Brown BN, Weinbaum JS, Ofstun EL, Makaroun MS, Humphrey JD, Vorp DA](#). Distinct macrophage phenotype and collagen organization within the intraluminal thrombus of abdominal aortic aneurysm. *Journal of Vascular Surgery*. 2015 Sep;62(3):585-93. Epub 2015 Jul 20.

[Hartman RA, Yurube T, Ngo K, Merzlak NE, Debski RE, Brown BN, Kang JD, Sowa GA](#). Biological responses to flexion/extension in spinal segments ex-vivo. *Journal of Orthopaedic Research*. 2015 Aug;33(8):1255-64. Epub 2015 Apr 27.

[Wolf MT, Vodovotz Y, Tottey S, Brown BN, Badylak SF](#). Predicting in vivo responses to biomaterials via combined in vitro and in silico analysis. *Tissue Engineering Part C. Methods*. 2015 Feb;21(2):148-59. Epub 2014 Aug 4.

[Wolf MT, Dearth CL, Ranallo CA, LoPresti ST, Carey LE, Daly KA, Brown BN, Badylak SF](#). Macrophage polarization in response to ECM coated polypropylene mesh. *Biomaterials*. 2014 Aug;35(25):6838-49. Epub 2014 May 21.

[Sanz AF, Hoppo T, Witteman BP, Brown BN, Gilbert TW, Badylak SF, Jobe BA, Nieponice A](#). In vivo assessment of a biological occluder for NOTES gastrotomy closure. *Surgical Laparoscopy, Endoscopy and Percutaneous Techniques*. 2014 Aug;24(4):322-6.

Cui

[Catt K, Li H, Hoang V, Beard R, Cui XT](#). Self-powered therapeutic release from conducting polymer/graphene oxide films on magnesium. *Nanomedicine*. 2017 May 29. pii: S1549-9634(17)30084-9. [Epub ahead of print]

[Du ZJ, Kolarcik CL, Kozai TDY, Luebben SD, Sapp SA, Zheng XS, Nability JA, Cui XT.](#) Ultrasoft microwire neural electrodes improve chronic tissue integration. *Acta Biomaterialia*. 2017 Apr 15;53:46-58. Epub 2017 Feb 6.

[Taylor IM, Du Z, Bigelow ET, Eles JR, Horner AR, Catt KA, Weber SG, Jamieson BG, Cui XT.](#) Aptamer-functionalized neural recording electrodes for the direct measurement of cocaine in vivo. *Journal of Materials Chemistry, B, Materials for Biology and Medicine*. 2017 Apr 7;5(13):2445-2458. Epub 2017 Mar 6.

[Taylor IM, Robbins EM, Catt KA, Cody PA, Happe CL, Cui XT.](#) Enhanced dopamine detection sensitivity by PEDOT/graphene oxide coating on in vivo carbon fiber electrodes. *Biosensors and Bioelectronics*. 2017 Mar 15;89(Pt 1):400-410. Epub 2016 May 27.

[Catt K, Li H, Cui XT.](#) Poly (3,4-ethylenedioxythiophene) graphene oxide composite coatings for controlling magnesium implant corrosion. *Acta Biomaterialia*. 2017 Jan 15;48:530-540. Epub 2016 Nov 17.

[Eles JR, Vazquez AL, Snyder NR, Lagenaur C, Murphy MC, Kozai TD, Cui XT.](#) Neuroadhesive L1 coating attenuates acute microglial attachment to neural electrodes as revealed by live two-photon microscopy. *Biomaterials*. 2017 Jan;113:279-292. Epub 2016 Nov 1.

[Khilwani R, Gilgunn PJ, Kozai TD, Ong XC, Korkmaz E, Gunalan PK, Cui XT, Fedder GK, Ozdoganlar OB.](#) Ultra-miniature ultra-compliant neural probes with dissolvable delivery needles: design, fabrication and characterization. *Biomedical Microdevices*. 2016 Dec;18(6):97.

[Degenhart AD, Eles J, Dum R, Mischel JL, Smalianchuk I, Endler B, Ashmore RC, Tyler-Kabara EC, Hatsopoulos NG, Wang W, Batista AP, Cui XT.](#) Histological evaluation of a chronically-implanted electrocorticographic electrode grid in a non-human primate. *Journal of Neural Engineering*. 2016 Aug;13(4):046019. Epub 2016 Jun 28.

[Kozai TD, Jaquins-Gerstl AS, Vazquez AL, Michael AC, Cui XT.](#) Dexamethasone retrodialysis attenuates microglial response to implanted probes in vivo. *Biomaterials*. 2016 May;87:157-69. Epub 2016 Feb 10.

[Kozai TD, Eles JR, Vazquez AL, Cui XT.](#) Two-photon imaging of chronically implanted neural electrodes: Sealing methods and new insights. *Journal of Neuroscience Methods*. 2016 Jan 30;258:46-55.

[Kozai TD, Catt K, Du Z, Na K, Srivannavit O, Haque RU, Seymour J, Wise KD, Yoon E, Cui XT.](#) Chronic In Vivo Evaluation of PEDOT/CNT for Stable Neural Recordings. *IEEE Transactions on Biomedical Engineering*. 2016 Jan;63(1):111-9. Epub 2015 Jun 15.

[Alba NA, Du ZJ, Catt KA, Kozai TD, Cui XT.](#) In Vivo Electrochemical Analysis of a PEDOT/MWCNT Neural Electrode Coating. *Biosensors (Basel)*. 2015 Oct 13;5(4):618-46.

[Du ZJ, Luo X, Weaver C, Cui XT.](#) Poly (3, 4-ethylenedioxythiophene)-ionic liquid coating improves neural recording and stimulation functionality of MEAs. *Journal of Materials Chemistry, C, Materials for Optical and Electronic Devices*. 2015 Jul 7;3(25):6515-6524. Epub 2015 Apr 27.

[Kolarcik CL, Luebben SD, Sapp SA, Hanner J, Snyder N, Kozai TD, Chang E, Nability JA, Nability ST, Lagenaur CF, Cui XT](#). Elastomeric and soft conducting microwires for implantable neural interfaces. *Soft Matter*. 2015 Jun 28;11(24):4847-61. Epub 2015 May 20.

[Weaver CL, Cui XT](#). Directed Neural Stem Cell Differentiation with a Functionalized Graphene Oxide Nanocomposite. *Advanced Healthcare Materials*. 2015 Jun 24;4(9):1408-16. Epub 2015 May 5.

[Kozai TD, Du Z, Gugel ZV, Smith MA, Chase SM, Bodily LM, Caparosa EM, Friedlander RM, Cui XT](#). Comprehensive chronic laminar single-unit, multi-unit, and local field potential recording performance with planar single shank electrode arrays. *Journal of Neuroscience Methods*. 2015 Mar 15;242:15-40. Epub 2014 Dec 24.

[Kolarcik CL, Catt K, Rost E, Albrecht IN, Bourbeau D, Du Z, Kozai TD, Luo X, Weber DJ, Cui XT](#). Evaluation of poly(3,4-ethylenedioxythiophene)/carbon nanotube neural electrode coatings for stimulation in the dorsal root ganglion. *Journal of Neural Engineering*. 2015 Feb;12(1):016008. Epub 2014 Dec 8.

[Kozai TD, Jaquins-Gerstl AS, Vazquez AL, Michael AC, Cui XT](#). Brain tissue responses to neural implants impact signal sensitivity and intervention strategies. *ACS Chemical Neuroscience*. 2015 Jan 21;6(1):48-67. Epub 2015 Jan 12. Review.

[Kozai TD, Catt K, Li X, Gugel ZV, Olafsson VT, Vazquez AL, Cui XT](#). Mechanical failure modes of chronically implanted planar silicon-based neural probes for laminar recording. *Biomaterials*. 2015 Jan;37:25-39. Epub 2014 Oct 27.

[Kozai TD, Li X, Bodily LM, Caparosa EM, Zenonos GA, Carlisle DL, Friedlander RM, Cui XT](#). Effects of caspase-1 knockout on chronic neural recording quality and longevity: insight into cellular and molecular mechanisms of the reactive tissue response. *Biomaterials*. 2014 Dec;35(36):9620-34. Epub 2014 Aug 28.

[Kozai TD, Gugel Z, Li X, Gilgunn PJ, Khilwani R, Ozdoganlar OB, Fedder GK, Weber DJ, Cui XT](#). Chronic tissue response to carboxymethyl cellulose based dissolvable insertion needle for ultra-small neural probes. *Biomaterials*. 2014 Nov;35(34):9255-68. Epub 2014 Aug 13.

[Wang W, Xu G, Cui XT, Sheng G, Luo X](#). Enhanced catalytic and dopamine sensing properties of electrochemically reduced conducting polymer nanocomposite doped with pure graphene oxide. *Biosensors and Bioelectronics*. 2014 Aug 15;58:153-6. Epub 2014 Mar 1.

A Donnenberg

[Tillman BW, Kelly J, Richards TD, Chen AF, Donnenberg AD, Donnenberg VS, Tzeng E](#). A depleting antibody toward sca-1 mitigates a surge of CD34(+)/c-kit(+) progenitors and reduces vascular restenosis in a murine vascular injury model. *Journal of Vascular Surgery*. 2016 Oct;64(4):1084-92.

[Donnenberg VS, Huber A, Basse P, Rubin JP, Donnenberg AD](#). Neither epithelial nor mesenchymal circulating tumor cells isolated from breast cancer patients are tumorigenic in NOD-scid Il2rnull mice. *NPJ Breast Cancer*. 2016 Mar 9;2:16004. eCollection 2016.

[Kim D, Donnenberg VS, Wilson JW, Donnenberg AD](#). The use of simultaneous confidence bands for comparison of single parameter fluorescent intensity data. *Cytometry, Part A*. 2016 Jan;89(1):89-97. Epub 2015 Sep 25.

[Donnenberg AD, Meyer EM, Rubin JP, Donnenberg VS](#). The cell-surface proteome of cultured adipose stromal cells. *Cytometry, Part A*. 2015 Jul;87(7):665-74. Epub 2015 Apr 30.

[Donnenberg VS, Donnenberg AD](#). Coping with artifact in the analysis of flow cytometric data. *Methods*. 2015 Jul 1;82:3-11. Epub 2015 Mar 28.

[Donnenberg VS, Donnenberg AD](#). Stem cell state and the epithelial-to-mesenchymal transition: Implications for cancer therapy. *Journal of Clinical Pharmacology*. 2015 Jun;55(6):603-19. Epub 2015 Apr 7.

V Donnenberg

[Donnenberg VS, Burris JF, Wiernik PH, Cohen LJ, Korth-Bradley JM](#). How to Fix the Dangerous Lack of Clinical Pharmacology Education in the Medical Profession: The Generation of Core Entrustable Professional Activities in Clinical Pharmacology for Entering Residency. *Journal of Clinical Pharmacology*. 2016 Oct;56(10):1177-9. Epub 2016 Jun 7.

[Tillman BW, Kelly J, Richards TD, Chen AF, Donnenberg AD, Donnenberg VS, Tzeng E](#). A depleting antibody toward sca-1 mitigates a surge of CD34(+)/c-kit(+) progenitors and reduces vascular restenosis in a murine vascular injury model. *Journal of Vascular Surgery*. 2016 Oct;64(4):1084-92.

[Donnenberg VS, Huber A, Basse P, Rubin JP, Donnenberg AD](#). Neither epithelial nor mesenchymal circulating tumor cells isolated from breast cancer patients are tumorigenic in NOD-scid Il2rnull mice. *NPJ Breast Cancer*. 2016 Mar 9;2:16004. eCollection 2016.

[Kim D, Donnenberg VS, Wilson JW, Donnenberg AD](#). The use of simultaneous confidence bands for comparison of single parameter fluorescent intensity data. *Cytometry, Part A*. 2016 Jan;89(1):89-97. Epub 2015 Sep 25.

[Lu H, Clauser KR, Tam WL, Fröse J, Ye X, Eaton EN, Reinhardt F, Donnenberg VS, Bhargava R, Carr SA, Weinberg RA](#). Addendum: A breast cancer stem cell niche supported by juxtacrine signalling from monocytes and macrophages. *Nature Cell Biology*. 2015 Dec;17(12):1607.

[Donnenberg AD, Meyer EM, Rubin JP, Donnenberg VS](#). The cell-surface proteome of cultured adipose stromal cells. *Cytometry, Part A*. 2015 Jul;87(7):665-74. Epub 2015 Apr 30.

[Donnenberg VS, Donnenberg AD](#). Coping with artifact in the analysis of flow cytometric data. *Methods*. 2015 Jul 1;82:3-11. Epub 2015 Mar 28.

[Donnenberg VS, Donnenberg AD](#). Stem cell state and the epithelial-to-mesenchymal transition: Implications for cancer therapy. *Journal of Clinical Pharmacology*. 2015 Jun;55(6):603-19. Epub 2015 Apr 7.

[Lu H, Clauser KR, Tam WL, Fröse J, Ye X, Eaton EN, Reinhardt F, **Donnenberg VS**, Bhargava R, Carr SA, Weinberg RA.](#) A breast cancer stem cell niche supported by juxtacrine signalling from monocytes and macrophages. *Nature Cell Biology*. 2014 Nov;16(11):1105-17. Epub 2014 Sep 28.

Duncan

[Hsu SH, Delgado ER, Otero PA, Teng KY, Kutay H, Meehan KM, Moroney JB, Monga JK, Hand NJ, Friedman JR, Ghoshal K, **Duncan AW**.](#) MicroRNA-122 regulates polyploidization in the murine liver. *Hepatology*. 2016 Aug;64(2):599-615. Epub 2016 May 12.

[Edmunds LR, Otero PA, Sharma L, D'Souza S, Dolezal JM, David S, Lu J, Lamm L, Basantani M, Zhang P, Sipula IJ, Li L, Zeng X, Ding Y, Ding F, Beck ME, Vockley J, Monga SP, Kershaw EE, O'Doherty RM, Kratz LE, Yates NA, Goetzman EP, Scott D, **Duncan AW**, Prochowik EV.](#) Abnormal lipid processing but normal long-term repopulation potential of myc^{-/-} hepatocytes. *Oncotarget*. 2016 May 24;7(21):30379-95.

[Hsu SH, **Duncan AW**.](#) Pathological polyploidy in liver disease. *Hepatology*. 2015 Sep;62(3):968-70. Epub 2015 Jul 22.

Federspiel

[Madhani SP, Frankowski BJ, **Federspiel WJ**.](#) Fiber bundle design for an integrated wearable artificial lung. *ASAIO Journal*. 2017 Feb 7. [Epub ahead of print]

[Madhani SP, D'Aloiso BD, Frankowski B, **Federspiel WJ**.](#) Darcy Permeability of Hollow Fiber Membrane Bundles Made from Membrana Polymethylpentene Fibers Used in Respiratory Assist Devices. *ASAIO Journal*. 2016 May-Jun;62(3):329-31.

[Arazawa DT, Kimmel JD, Finn MC, **Federspiel WJ**.](#) Acidic sweep gas with carbonic anhydrase coated hollow fiber membranes synergistically accelerates CO₂ removal from blood. *Acta Biomaterialia*. 2015 Oct;25:143-9. Epub 2015 Jul 6.

[Malkin AD, Sheehan RP, Mathew S, **Federspiel WJ**, Redl H, Clermont G.](#) A Neutrophil Phenotype Model for Extracorporeal Treatment of Sepsis. *PLoS Computational Biology*. 2015 Oct 15;11(10):e1004314. eCollection 2015 Oct.

[Arazawa DT, Kimmel JD, **Federspiel WJ**.](#) Kinetics of CO₂ exchange with carbonic anhydrase immobilized on fiber membranes in artificial lungs. *Journal of Materials Science. Materials in Medicine*. 2015 Jun;26(6):193. Epub 2015 Jun 2.

[Cove ME, **Federspiel WJ**.](#) Venovenous extracorporeal CO₂ removal for the treatment of severe respiratory acidosis. *Critical Care*. 2015 Apr 17;19:176.

[Ye SH, Arazawa DT, Zhu Y, Shankarraman V, Malkin AD, Kimmel JD, Gamble LJ, Ishihara K, **Federspiel WJ**, Wagner WR.](#) Hollow fiber membrane modification with functional zwitterionic

macromolecules for improved thromboresistance in artificial lungs. *Langmuir*. 2015 Mar 3;31(8):2463-71. Epub 2015 Feb 23.

[Zhang J, Peng Z, Maberry D, Volpe J, Kimmel JD, Federspiel WJ, Kellum JA](#). Effects of hemoadsorption with a novel adsorbent on sepsis: in vivo and in vitro study. *Blood Purification*. 2015;39(1-3):239-45. Epub 2015 Apr 1.

[Jeffries RG, Frankowski BJ, Burgreen GW, Federspiel WJ](#). Effect of Impeller Design and Spacing on Gas Exchange in a Percutaneous Respiratory Assist Catheter. *Artificial Organs*. 2014 Dec;38(12):1007-17. Epub 2014 Apr 22.

Fontes

[Fontes PA](#). The Evolution of Oxygen Carrier Solutions for Machine Perfusion. *Transplantation*. 2017 Jun 21. [Epub ahead of print]

[Rogal SS, Mankaney G, Udawatta V, Chinman M, Good CB, Zickmund S, Bielefeldt K, Chidi A, Jonassaint N, Jazwinski A, Shaikh O, Hughes C, Fontes P, Humar A, DiMartini A](#). Pre-Transplant Depression Is Associated with Length of Hospitalization, Discharge Disposition, and Survival after Liver Transplantation. *PLoS One*. 2016 Nov 7;11(11):e0165517. eCollection 2016.

[Sadowsky D, Zamora R, Barclay D, Yin J, Fontes P, Vodovotz Y](#). Machine Perfusion of Porcine Livers with Oxygen-Carrying Solution Results in Reprogramming of Dynamic Inflammation Networks. *Frontiers in Pharmacology*. 2016 Nov 4;7:413. eCollection 2016.

[Demetris AJ, Bellamy C, Hübscher SG, O'Leary J, Randhawa PS, Feng S, Neil D, Colvin RB, McCaughan G, Fung JJ, Del Bello A, Reinholt FP, Haga H, Adeyi O, Czaja AJ, Schiano T, Fiel MI, Smith ML, Sebahg M, Tanigawa RY, Yilmaz F, Alexander G, Baiocchi L, Balasubramanian M, Batal I, Bhan AK, Bucuvalas J, Cerski CT, Charlotte F, de Vera ME, ElMonayeri M, Fontes P, Furth EE, Gouw AS, Hafezi-Bakhtiari S, Hart J, Honsova E, Ismail W, Itoh T, Jhala NC, Khettry U, Klintmalm GB, Knechtle S, Koshiha T, Kozlowski T, Lassman CR, Lerut J, Levitsky J, Licini L, Liotta R, Mazariegos G, Minervini MI, Misdraji J, Mohanakumar T, Mölne J, Nasser I, Neuberger J, O'Neil M, Pappo O, Petrovic L, Ruiz P, Sağol Ö, Sanchez Fueyo A, Sasatomi E, Shaked A, Shiller M, Shimizu T, Sis B, Sonzogni A, Stevenson HL, Thung SN, Tisone G, Tsamandas AC, Wernerson A, Wu T, Zeevi A, Zen Y](#). 2016 Comprehensive Update of the Banff Working Group on Liver Allograft Pathology: Introduction of Antibody-Mediated Rejection. *American Journal of Transplantation*. 2016 Oct;16(10):2816-2835. doi: 10.1111/ajt.13909. Epub 2016 Jul 14.

[Karangwa SA, Dutkowski P, Fontes P, Friend PJ, Guarrera JV, Markmann JF, Mergental H, Minor T, Quintini C, Selzner M, Uygun K, Watson CJ, Porte RJ](#). Machine Perfusion of Donor Livers for Transplantation: A Proposal for Standardized Nomenclature and Reporting Guidelines. *American Journal of Transplantation*. 2016 Oct;16(10):2932-2942. Epub 2016 Jun 13.

[Komori J, Deward AD, Gramignoli R, Strom SC, Fontes P, Lagasse E](#). Potential Barriers to Human Hepatocyte Transplantation in MUP-uPA α g (+/+)Rag2 $^{-/-}$ γ C $^{-/-}$ Mice. *Cell Transplantation*. 2014;23(12):1537-44. 2013 Aug 30.

Fox

[Soltys KA, Setoyama K, Tafaleng EN, Soto Gutiérrez A, Fong J, Fukumitsu K, Nishikawa T, Nagaya M, Sada R, Haberman K, Gramignoli R, Dorko K, Tahan V, Dreyzin A, Baskin K, Crowley JJ, Quader MA, Deutsch M, Ashokkumar C, Shneider BL, Squires RH, Ranganathan S, Reyes-Mugica M, Dobrowolski SF, Mazariegos G, Elango R, Stolz DB, Strom SC, Vockley G, Roy-Chowdhury J, Cascalho M, Guha C, Sindhi R, Platt JL, Fox JJ.](#) Host conditioning and rejection monitoring in hepatocyte transplantation in humans. *Journal of Hepatology*. 2017 May;66(5):987-1000. Epub 2016 Dec 24.

[Sauer V, Tchaikovskaya T, Wang X, Li Y, Zhang W, Tar K, Polgar Z, Ding J, Guha C, Fox JJ, Roy-Chowdhury N, Roy-Chowdhury J.](#) Human Urinary Epithelial Cells as a Source of Engraftable Hepatocyte-like Cells using Stem Cell Technology. *Cell Transplantation*. 2016 Dec 13;25(12):2221-2243. Epub 2016 Jun 9.

[Chen Y, Li Y, Wang X, Zhang W, Sauer V, Chang CJ, Han B, Tchaikovskaya T, Avsar Y, Tafaleng E, Madhusudana Giriya S, Tar K, Polgar Z, Strom S, Bouhassira EE, Guha C, Fox JJ, Roy-Chowdhury J, Roy-Chowdhury N.](#) Amelioration of Hyperbilirubinemia in Gunn Rats after Transplantation of Human Induced Pluripotent Stem Cell-Derived Hepatocytes. *Stem Cell Reports*. 2015 Jul 14;5(1):22-30. 2015 Jul 14;5(1):22-30. Epub 2015 Jun 11.

[Tafaleng EN, Chakraborty S, Han B, Hale P, Wu W, Soto-Gutierrez A, Feghali-Bostwick CA, Wilson AA, Kotton DN, Nagaya M, Strom SC, Roy-Chowdhury J, Stolz DB, Perlmutter DH, Fox JJ.](#) Induced pluripotent stem cells model personalized variations in liver disease resulting from α 1-antitrypsin deficiency. *Hepatology*. 2015 Jul;62(1):147-57. Epub 2015 Apr 13.

[Nishikawa T, Bell A, Brooks JM, Setoyama K, Melis M, Han B, Fukumitsu K, Handa K, Tian J, Kaestner KH, Vodovotz Y, Locker J, Soto-Gutierrez A, Fox JJ.](#) Resetting the transcription factor network reverses terminal chronic hepatic failure. *Journal of Clinical Investigation*. 2015 Apr;125(4):1533-44. Epub 2015 Mar 16.

[Hayashi C, Ito M, Ito R, Murakumo A, Yamamoto N, Hiramatsu N, Fox JJ, Horiguchi A.](#) Effects of edaravone, a radical scavenger, on hepatocyte transplantation. *Journal of Hepatobiliary Pancreatic Science*. 2014 Dec;21(12):919-24. Epub 2014 Sep 10.

[Fox JJ, Daley GQ, Goldman SA, Huard J, Kamp TJ, Trucco M.](#) Stem cell therapy. Use of differentiated pluripotent stem cells as replacement therapy for treating disease. *Science*. 2014 Aug 22;345(6199):1247391. Review.

[Bhatia SN, Underhill GH, Zaret KS, Fox JJ.](#) Cell and tissue engineering for liver disease. *Science Translational Medicine*. 2014 Jul 16;6(245):245sr2. Review.

Fu

[Tashiro Y, Lucidi GA, Gale T, Nagai K, Herbst E, Irrgang JJ, Nakashima Y, Anderst W, Fu FH.](#) Anterior cruciate ligament tibial insertion site is elliptical or triangular shaped in healthy young adults: high-resolution 3-T MRI analysis. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Jun 24. [Epub ahead of print]

[Zheng L, Sabzevari S, Marshall B, Zhu J, Linde MA, Smolinski P, Fu FH](#). Anterior cruciate ligament graft fixation first in anterior and posterior cruciate ligament reconstruction best restores knee kinematics. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Jun 23. [Epub ahead of print]

[Zhu J, Dong J, Marshall B, Linde MA, Smolinski P, Fu FH](#). Medial collateral ligament reconstruction is necessary to restore anterior stability with anterior cruciate and medial collateral ligament injury. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 May 24. [Epub ahead of print]

[Guenther D, Fu FH, Musahl V, Debski RE](#). Beyond the Anterolateral Ligament: Response. *American Journal of Sports Medicine*. 2017 May;45(6):NP18-NP19.

[Sabzevari S, Rahnemai-Azar AA, Albers M, Linde M, Smolinski P, Fu FH](#). Anatomic and Histological Investigation of the Anterolateral Capsular Complex in the Fetal Knee. *American Journal of Sports Medicine*. 2017 May;45(6):1383-1387. Epub 2017 Mar 10.

[Schreiber VM, Jordan SS, Bonci GA, Irrgang JJ, Fu FH](#). The evolution of primary double-bundle ACL reconstruction and recovery of early post-operative range of motion. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 May;25(5):1475-1481. Epub 2016 Oct 14.

[Guenther D, Irrarázaval S, Albers M, Vernacchia C, Irrgang JJ, Musahl V, Fu FH](#). Area of the tibial insertion site of the anterior cruciate ligament as a predictor for graft size. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 May;25(5):1576-1582. Epub 2016 Aug 19.

[Surer L, Yapici C, Guglielmino C, van Eck CF, Irrgang JJ, Fu FH](#). Fibrin clot prevents bone tunnel enlargement after ACL reconstruction with allograft. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 May;25(5):1555-1560. Epub 2016 Apr 16.

[Iriuchishima T, Ryu K, Okano T, Suruga M, Aizawa S, Fu FH](#). The evaluation of muscle recovery after anatomical single-bundle ACL reconstruction using a quadriceps autograft. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 May;25(5):1449-1453. Epub 2016 Apr 7.

[Iriuchishima T, Ryu K, Suruga M, Aizawa S, Fu FH](#). The correlation of femoral tunnel length with the height and area of the lateral wall of the femoral intercondylar notch in anatomical single-bundle ACL reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 May;25(5):1632-1637. Epub 2016 Feb 4.

[Albers M, Shaikh H, Herbst E, Onishi K, Nagai K, Musahl V, Fu FH](#). The iliotibial band and anterolateral capsule have a combined attachment to the Second fracture. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Apr 26. [Epub ahead of print]

[Fu FH](#). CORR Insights®: No Clinically Important Difference in Knee Scores or Instability Between Transtibial and Inlay Techniques for PCL Reconstruction: A Systematic Review. *Clinical Orthopaedics and Related Research*. 2017 Apr;475(4):1249-1251. Epub 2017 Jan 30.

[Yoshida M, Herbst E, Albers M, Musahl V, Fu FH, Onishi K](#). The anterolateral complex in anterior cruciate ligament deficient knees demonstrate sonographic abnormalities on high-resolution sonography. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Apr;25(4):1024-1029. Epub 2017 Mar 20.

[Herbst E, Albers M, Burnham JM, Shaikh HS, Naendrup JH, Fu FH, Musahl V.](#) The anterolateral complex of the knee: a pictorial essay. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Apr;25(4):1009-1014. Epub 2017 Feb 23.

[Surer L, Michail K, Koken M, Yapici C, Zhu J, Marshall BD, Linde MA, Smolinski P, Fu FH.](#) The effect of anterior cruciate ligament graft rotation on knee biomechanics. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Apr;25(4):1093-1100. Epub 2016 Nov 17.

[Tang J, Thorhauer E, Bowman K, Fu FH, Tashman S.](#) In vivo posterior cruciate ligament elongation in running activity after anatomic and non-anatomic anterior cruciate ligament reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Apr;25(4):1177-1183. Epub 2016 Jun 2.

[Rahnemai-Azar AA, Abebe ES, Johnson P, Labrum J, Fu FH, Irrgang JJ, Samuelsson K, Musahl V.](#) Increased lateral tibial slope predicts high-grade rotatory knee laxity pre-operatively in ACL reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Apr;25(4):1170-1176. Epub 2016 May 6.

[Miller RM, Rahnemai-Azar AA, Sürer L, Arilla FV, Fu FH, Debski RE, Musahl V.](#) Tensile properties of a split quadriceps graft for ACL reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Apr;25(4):1249-1254. Epub 2016 Feb 11.

[Ingham SJ, de Carvalho RT, Martins CA, Lertwanich P, Abdalla RJ, Smolinski P, Lovejoy CO, Fu FH.](#) Anterolateral ligament anatomy: a comparative anatomical study. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Apr;25(4):1048-1054. Epub 2015 Dec 28.

[Arner JW, Herbst E, Burnham JM, Soni A, Naendrup JH, Popchak A, Fu FH, Musahl V.](#) MRI can accurately detect meniscal ramp lesions of the knee. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Mar 25. [Epub ahead of print]

[Iriuchishima T, Fu FH, Ryu K, Suruga M, Yahagi Y, Aizawa S.](#) Sagittal femoral condyle morphology correlates with femoral tunnel length in anatomical single bundle ACL reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Mar 13. [Epub ahead of print]

[Sabzevari S, Rahnemai-Azar AA, Shaikh HS, Arner JW, Irrgang JJ, Fu FH.](#) Increased lateral tibial posterior slope is related to tibial tunnel widening after primary ACL reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Mar 4. [Epub ahead of print]

[Guenther D, Rahnemai-Azar AA, Bell KM, Irrarázaval S, Fu FH, Musahl V, Debski RE.](#) The Anterolateral Capsule of the Knee Behaves Like a Sheet of Fibrous Tissue. *American Journal of Sports Medicine*. 2017 Mar;45(4):849-855. Epub 2016 Dec 8.

[Kawakami Y, Takayama K, Matsumoto T, Tang Y, Wang B, Mifune Y, Cummins JH, Warth RJ, Kuroda R, Kurosaka M, Fu FH, Huard J.](#) Anterior Cruciate Ligament-Derived Stem Cells Transduced With BMP2 Accelerate Graft-Bone Integration After ACL Reconstruction. *American Journal of Sports Medicine*. 2017 Mar;45(3):584-597. Epub 2016 Dec 14.

[Rahnemai-Azar AA, Arilla FV, Bell KM, Fu FH, Musahl V, Debski RE](#). Biomechanical evaluation of knee endpoint during anterior tibial loading: Implication for physical exams. *Knee*. 2017 Mar;24(2):258-263. Epub 2017 Feb 8.

[Atesok K, Fu FH, Sekiya I, Stolzing A, Ochi M, Rodeo SA](#). Stem cells in degenerative orthopaedic pathologies: effects of aging on therapeutic potential. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Feb;25(2):626-636. Epub 2015 Aug 23. Review.

[Irarrázaval S, Albers M, Chao T, Fu FH](#). Gross, Arthroscopic, and Radiographic Anatomies of the Anterior Cruciate Ligament: Foundations for Anterior Cruciate Ligament Surgery. *Clinics in Sports Medicine*. 2017 Jan;36(1):9-23. Epub 2016 Oct 15. Review.

[Tashiro Y, Irarrázaval S, Osaki K, Iwamoto Y, Fu FH](#). Comparison of graft bending angle during knee motion after outside-in, trans-portal and trans-tibial anterior cruciate ligament reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2017 Jan;25(1):129-137. Epub 2016 Jun 8.

[Musahl V, Rahnemai-Azar AA, Costello J, Arner JW, Fu FH, Hoshino Y, Lopomo N, Samuelsson K, Irrgang JJ](#). The Influence of Meniscal and Anterolateral Capsular Injury on Knee Laxity in Patients With Anterior Cruciate Ligament Injuries. *American Journal of Sports Medicine*. 2016 Dec;44(12):3126-3131. Epub 2016 Aug 9.

[Kobayashi M, Ota S, Terada S, Kawakami Y, Otsuka T, Fu FH, Huard J](#). The Combined Use of Losartan and Muscle-Derived Stem Cells Significantly Improves the Functional Recovery of Muscle in a Young Mouse Model of Contusion Injuries. *American Journal of Sports Medicine*. 2016 Dec;44(12):3252-3261. Epub 2016 Aug 8.

[Arilla FV, Rahnemai-Azar AA, Yacuzzi C, Guenther D, Engel BS, Fu FH, Musahl V, Debski RE](#). Correlation between a 2D simple image analysis method and 3D bony motion during the pivot shift test. *Knee*. 2016 Dec;23(6):1059-1063. Epub 2016 Nov 1.

[Svantesson E, Sundemo D, Hamrin Senorski E, Alentorn-Geli E, Musahl V, Fu FH, Desai N, Stålmán A, Samuelsson K](#). Double-bundle anterior cruciate ligament reconstruction is superior to single-bundle reconstruction in terms of revision frequency: a study of 22,460 patients from the Swedish National Knee Ligament Register. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2016 Nov 23. [Epub ahead of print]

[Muller B, Yabroudi MA, Lynch A, Lai CL, van Dijk CN, Fu FH, Irrgang JJ](#). Defining Thresholds for the Patient Acceptable Symptom State for the IKDC Subjective Knee Form and KOOS for Patients Who Underwent ACL Reconstruction. *American Journal of Sports Medicine*. 2016 Nov;44(11):2820-2826. Epub 2016 Jul 29.

[Debandi A, Maeyama A, Hoshino Y, Asai S, Goto B, Smolinski P, Fu FH](#). The Influence of Knee Flexion Angle for Graft Fixation on Rotational Knee Stability During Anterior Cruciate Ligament Reconstruction: A Biomechanical Study. *Arthroscopy*. 2016 Nov;32(11):2322-2328. Epub 2016 May 14. pii: S0749-8063(16)00258-9.

[Rahnemai-Azar AA, Sabzevari S, Irarrázaval S, Chao T, Fu FH](#). Anatomical Individualized ACL Reconstruction. *Archives of Bone and Joint Surgery*. 2016 Oct;4(4):291-297. Review.

[Rahnemai-Azar AA, Sabzevari S, Irarrázaval S, Chao T, Fu FH](#). Restoring Nature Through Individualized Anatomic Anterior Cruciate Ligament Reconstruction Surgery. *Archives of Bone and Joint Surgery*. 2016 Oct;4(4):289-290.

[Yabroudi MA, Björnsson H, Lynch AD, Muller B, Samuelsson K, Tarabichi M, Karlsson J, Fu FH, Harner CD, Irrgang JJ](#). Predictors of Revision Surgery After Primary Anterior Cruciate Ligament Reconstruction. *Orthopaedic Journal of Sports Medicine*. 2016 Sep 27;4(9):2325967116666039. eCollection 2016 Sep.

[Musahl V, Karlsson J, Zaffagnini S, Fu FH](#). Authors' Reply. *Arthroscopy*. 2016 Sep;32(9):1741-4.

[Muller B, Duerr ER, van Dijk CN, Fu FH](#). Anatomic anterior cruciate ligament reconstruction: reducing anterior tibial subluxation. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2016 Sep;24(9):3005-10. Epub 2015 Apr 26.

[Iriuchishima T, Ryu K, Aizawa S, Fu FH](#). Blumensaat's line is not always straight: morphological variations of the lateral wall of the femoral intercondylar notch. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2016 Sep;24(9):2752-7. Epub 2015 Mar 25.

[Ferrer GA, Miller RM, Murawski CD, Tashman S, Irrgang JJ, Musahl V, Fu FH, Debski RE](#). Quantitative analysis of the patella following the harvest of a quadriceps tendon autograft with a bone block. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2016 Sep;24(9):2899-905. Epub 2015 Mar 7.

[Sasaki Y, Chang SS, Fujii M, Araki D, Zhu J, Marshall B, Linde-Rosen M, Smolinski P, Fu FH](#). Effect of fixation angle and graft tension in double-bundle anterior cruciate ligament reconstruction on knee biomechanics. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2016 Sep;24(9):2892-8. Epub 2015 Mar 1.

[Dombrowski ME, Costello JM, Ohashi B, Murawski CD, Rothrauff BB, Arilla FV, Friel NA, Fu FH, Debski RE, Musahl V](#). Macroscopic anatomical, histological and magnetic resonance imaging correlation of the lateral capsule of the knee. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2016 Sep;24(9):2854-60. Epub 2015 Feb 4.

[Widhalm HK, Surer L, Kurapati N, Guglielmino C, Irrgang JJ, Fu FH](#). Tibial ACL insertion site length: correlation between preoperative MRI and intra-operative measurements. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2016 Sep;24(9):2787-93. Epub 2014 Dec 17.

[Fujii M, Sasaki Y, Araki D, Furumatsu T, Miyazawa S, Ozaki T, Linde-Rosen M, Smolinski P, Fu FH](#). Evaluation of the semitendinosus tendon graft shift in the bone tunnel: an experimental study. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2016 Sep;24(9):2773-7. Epub 2014 Dec 4.

[Fu FH, Soni A](#). ACI Versus Microfracture: The Debate Continues: Commentary on an article by Gunnar Knutsen, MD, PhD, et al.: "A Randomized Multicenter Trial Comparing Autologous Chondrocyte Implantation with Microfracture: Long-Term Follow-up at 14 to 15 Years". *Journal of Bone and Joint Surgery American*. 2016 Aug 17;98(16):e69.

[Atesok K, Satava RM, Van Heest A, Hogan MV, Pedowitz RA, Fu FH, Sitnikov I, Marsh JL, Hurwitz SR.](#) Retention of Skills After Simulation-based Training in Orthopaedic Surgery. *Journal of the American Academy of Orthopaedic Surgery.* 2016 Aug;24(8):505-14.

[Fu FH.](#) CORR Insights(®): Does Anteromedial Portal Drilling Improve Footprint Placement in Anterior Cruciate Ligament Reconstruction? *Clinical Orthopaedics and Related Research.* 2016 Jul;474(7):1690-1. Epub 2016 May 10.

[Lertwanich P, Plakseychuk A, Kramer S, Linde-Rosen M, Maeyama A, Fu FH, Smolinski P.](#) Biomechanical evaluation contribution of the acetabular labrum to hip stability. *Knee Surgery, Sports Traumatology, Arthroscopy.* 2016 Jul;24(7):2338-45. Epub 2015 Mar 7.

[Atesok K, Doral MN, Karlsson J, Egol KA, Jazrawi LM, Coelho PG, Martinez A, Matsumoto T, Owens BD, Ochi M, Hurwitz SR, Atala A, Fu FH, Lu HH, Rodeo SA.](#) Multilayer scaffolds in orthopaedic tissue engineering. *Knee Surgery, Sports Traumatology, Arthroscopy.* 2016 Jul;24(7):2365-73. Epub 2014 Dec 3.

[Rahnemai-Azar AA, Yaseen Z, van Eck CF, Irrgang JJ, Fu FH, Musahl V.](#) Increased Lateral Tibial Plateau Slope Predisposes Male College Football Players to Anterior Cruciate Ligament Injury. *Journal of Bone and Joint Surgery American.* 2016 Jun 15;98(12):1001-6.

[Fu FH, Herbst E.](#) Editorial Commentary: The Pivot-Shift Phenomenon Is Multifactorial. *Arthroscopy.* 2016 Jun;32(6):1063-4.

[Hoshino Y, Rothrauff BB, Hensler D, Fu FH, Musahl V.](#) Arthroscopic image distortion-part II: the effect of lens angle and portal location in a 3D knee model. *Knee Surgery, Sports Traumatology, Arthroscopy.* 2016 Jun;24(6):2072-8. Epub 2014 Sep 24.

[Hoshino Y, Rothrauff BB, Hensler D, Fu FH, Musahl V.](#) Arthroscopic image distortion-part I: the effect of lens and viewing angles in a 2-dimensional in vitro model. *Knee Surgery, Sports Traumatology, Arthroscopy.* 2016 Jun;24(6):2065-71. Epub 2014 Sep 24.

[Rahnemai-Azar AA, Miller RM, Guenther D, Fu FH, Lesniak BP, Musahl V, Debski RE.](#) Structural Properties of the Anterolateral Capsule and Iliotibial Band of the Knee. *American Journal of Sports Medicine.* 2016 Apr;44(4):892-7. Epub 2016 Jan 25.

[Desai N, Alentorn-Geli E, van Eck CF, Musahl V, Fu FH, Karlsson J, Samuelsson K.](#) A systematic review of single- versus double-bundle ACL reconstruction using the anatomic anterior cruciate ligament reconstruction scoring checklist. *Knee Surgery, Sports Traumatology, Arthroscopy.* 2016 Mar;24(3):862-72. Review.

[Iriuchishima T, Ryu K, Suruga M, Aizawa S, Fu FH.](#) The correlation of femoral tunnel length with the height and area of the lateral wall of the femoral intercondylar notch in anatomical single-bundle ACL reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy.* 2016 Feb 4.

[Fujimaki Y, Thorhauer E, Sasaki Y, Smolinski P, Tashman S, Fu FH.](#) Quantitative In Situ Analysis of the Anterior Cruciate Ligament: Length, Midsubstance Cross-sectional Area, and Insertion Site Areas. *American Journal of Sports Medicine.* 2016 Jan;44(1):118-25.

[Muller B, Hofbauer M, Rahnamai-Azar AA, Wolf M, Araki D, Hoshino Y, Araujo P, Debski RE, Irrgang JJ, Fu FH, Musahl V](#). Development of computer tablet software for clinical quantification of lateral knee compartment translation during the pivot shift test. *Computer Methods in Biomechanical and Biomedical Engineering*. 2016;19(2):217-28.

[Musahl V, Rahnamai-Azar AA, van Eck CF, Guenther D, Fu FH](#). Anterolateral ligament of the knee, fact or fiction? *Knee Surgery, Sports Traumatology, Arthroscopy*. 2016 Jan;24(1):2-3.

[Iriuchishima T, Ryu K, Aizawa S, Fu FH](#). The difference in centre position in the ACL femoral footprint inclusive and exclusive of the fan-like extension fibres. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2016 Jan;24(1):254-9.

[Guenther D, Irrarázaval S, Nishizawa Y, Vernacchia C, Thorhauer E, Musahl V, Irrgang JJ, Fu FH](#). Variation in the shape of the tibial insertion site of the anterior cruciate ligament: classification is required. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Dec 12.

[Arilla FV, Yeung M, Bell K, Rahnamai-Azar AA, Rothrauff BB, Fu FH, Debski RE, Ayeni OR, Musahl V](#). Experimental Execution of the Simulated Pivot-Shift Test: A Systematic Review of Techniques. *Arthroscopy*. 2015 Dec;31(12):2445-54.e2. Review.

[Muller B, Hofbauer M, Atte A, van Dijk CN, Fu FH](#). Does flexible tunnel drilling affect the femoral tunnel angle measurement after anterior cruciate ligament reconstruction? *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Dec;23(12):3482-6.

[Murawski CD, Chen AF, Fu FH](#). Radiographic femoral bicondylar width predicts anterior cruciate ligament insertion site sizes. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Nov 26.

[Araujo PH, Asai S, Pinto M, Protta T, Middleton K, Linde-Rosen M, Irrgang J, Smolinski P, Fu FH](#). ACL Graft Position Affects in Situ Graft Force Following ACL Reconstruction. *Journal of Bone and Joint Surgery. American Volume*. 2015 Nov 4;97(21):1767-73.

[Iriuchishima T, Ryu K, Aizawa S, Fu FH](#). Proportional evaluation of anterior cruciate ligament footprint size and knee bony morphology. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Nov;23(11):3157-62.

[Bell KM, Arilla FV, Rahnamai-Azar AA, Fu FH, Musahl V, Debski RE](#). Novel technique for evaluation of knee function continuously through the range of flexion. *Journal of Biomechanics*. 2015 Oct 15;48(13):3728-31.

[Guenther D, Griffith C, Lesniak B, Lopomo N, Grassi A, Zaffagnini S, Fu FH, Musahl V](#). Anterolateral rotatory instability of the knee. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Oct;23(10):2909-17. Epub 2015 May 5.

[Atesok K, Fu FH, Sekiya I, Stolzing A, Ochi M, Rodeo SA](#). Stem cells in degenerative orthopaedic pathologies: effects of aging on therapeutic potential. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Aug 23.

[Guenther D, Rahnamai-Azar AA, Fu FH, Debski RE](#). The Biomechanical Function of the Anterolateral Ligament of the Knee: Letter to the Editor. *American Journal of Sports Medicine*. 2015 Aug;43(8):NP21-2.

[Takayama K, Kawakami Y, Mifune Y, Matsumoto T, Tang Y, Cummins JH, Greco N, Kuroda R, Kurosaka M, Wang B, Fu FH, Huard J](#). The effect of blocking angiogenesis on anterior cruciate ligament healing following stem cell transplantation. *Biomaterials*. 2015 Aug;60:9-19.

[Middleton KK, Muller B, Araujo PH, Fujimaki Y, Rabuck SJ, Irrgang JJ, Tashman S, Fu FH](#). Is the native ACL insertion site "completely restored" using an individualized approach to single-bundle ACL-R? *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Aug;23(8):2145-50.

[Zakko P, van Eck CF, Guenther D, Irrgang JJ, Fu FH](#). Can we predict the size of frequently used autografts in ACL reconstruction? *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Jul 17.

[Hogan MV, Walker GN, Cui LR, Fu FH, Huard J](#). The role of stem cells and tissue engineering in orthopaedic sports medicine: current evidence and future directions. *Arthroscopy*. 2015 May;31(5):1017-21. Epub 2015 Feb 25.

[Hogan MV, Kawakami Y, Murawski CD, Fu FH](#). Tissue engineering of ligaments for reconstructive surgery. *Arthroscopy*. 2015 May;31(5):971-9. Epub 2015 Jan 21. Review.

[Iriuchishima T, Ryu K, Aizawa S, Fu FH](#). Size correlation between the tibial anterior cruciate ligament footprint and the tibia plateau. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Apr;23(4):1147-52. Epub 2014 Mar 8.

[Kim D, Asai S, Moon CW, Hwang SC, Lee S, Keklikci K, Linde-Rosen M, Smolinski P, Fu FH](#). Biomechanical evaluation of anatomic single- and double-bundle anterior cruciate ligament reconstruction techniques using the quadriceps tendon. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Mar;23(3):687-95. Epub 2014 Dec 2.

[Wolf MR, Murawski CD, van Diek FM, van Eck CF, Huang Y, Fu FH](#). Intercondylar notch dimensions and graft failure after single- and double-bundle anterior cruciate ligament reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Mar;23(3):680-6. Epub 2014 Nov 8.

[Hensler D, Illingworth KD, Musahl V, Working ZM, Kobayashi T, Miyawaki M, Lorenz S, Witt M, Irrgang JJ, Huard J, Fu FH](#). Does fibrin clot really enhance graft healing after double-bundle ACL reconstruction in a caprine model? *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Mar;23(3):669-79. Epub 2014 Oct 19.

[Ma Y, Murawski CD, Rahnamai-Azar AA, Maldjian C, Lynch AD, Fu FH](#). Graft maturity of the reconstructed anterior cruciate ligament 6 months postoperatively: a magnetic resonance imaging evaluation of quadriceps tendon with bone block and hamstring tendon autografts. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Mar;23(3):661-8. Epub 2014 Sep 16.

[Fu FH, van Eck CF, Tashman S, Irrgang JJ, Moreland MS](#). Anatomic anterior cruciate ligament reconstruction: a changing paradigm. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Mar;23(3):640-8. Epub 2014 Aug 3. Review.

[Shi D, Zhou J, Yapici C, Linde-Rosen M, Smolinski P, Fu FH](#). Effect of graft fixation sequence on knee joint biomechanics in double-bundle anterior cruciate ligament reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Mar;23(3):655-60. Epub 2014 Jul 5.

[Haasper C, Kopf S, Lorenz S, Middleton KK, Tashman S, Fu FH](#). Influence of tibial rotation on tibial tunnel position measurements using lateral fluoroscopy in anterior cruciate ligament reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Mar;23(3):649-54. Epub 2013 Nov 17.

[Björnsson H, Desai N, Musahl V, Alentorn-Geli E, Bhandari M, Fu F, Samuelsson K](#). Is double-bundle anterior cruciate ligament reconstruction superior to single-bundle? A comprehensive systematic review. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Mar;23(3):696-739. Epub 2013 Sep 15. Review.

[van Eck CF, Widhalm H, Murawski C, Fu FH](#). Individualized anatomic anterior cruciate ligament reconstruction. *Physician and Sportsmedicine*. 2015 Feb;43(1):87-92.

[Degnan AJ, Maldjian C, Adam RJ, Fu FH, Didomenico M](#). Comparison of Insall-Salvati ratios in children with an acute anterior cruciate ligament tear and a matched control population. *AJR American Journal of Roentgenology*. 2015 Jan;204(1):161-6.

[Chen L, Linde-Rosen M, Hwang SC, Zhou J, Xie Q, Smolinski P, Fu FH](#). The effect of medial meniscal horn injury on knee stability. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Jan;23(1):126-31. Epub 2014 Aug 26.

[Wang JH, Kato Y, Ingham SJ, Maeyama A, Linde-Rosen M, Smolinski P, Fu FH, Harner C](#). Effects of knee flexion angle and loading conditions on the end-to-end distance of the posterior cruciate ligament: a comparison of the roles of the anterolateral and posteromedial bundles. *American Journal of Sports Medicine*. 2014 Dec;42(12):2972-8. Epub 2014 Oct 14.

[Takayama K, Kawakami Y, Kobayashi M, Greco N, Cummins JH, Matsushita T, Kuroda R, Kurosaka M, Fu FH, Huard J](#). Local intra-articular injection of rapamycin delays articular cartilage degeneration in a murine model of osteoarthritis. *Arthritis Research and Therapy*. 2014 Nov 17;16(6):482.

[Takayama K, Kawakami Y, Lee S, Greco N, Lavasani M, Mifune Y, Cummins JH, Yurube T, Kuroda R, Kurosaka M, Fu FH, Huard J](#). Involvement of ERCC1 in the pathogenesis of osteoarthritis through the modulation of apoptosis and cellular senescence. *Journal of Orthopaedic Research*. 2014 Oct;32(10):1326-32. Epub 2014 Jun 25.

[Kopf S, Musahl V, Bignozzi S, Irrgang JJ, Zaffagnini S, Fu FH](#). In Vivo Kinematic Evaluation of Anatomic Double-Bundle Anterior Cruciate Ligament Reconstruction. *American Journal of Sports Medicine*. 2014 Sep;42(9):2172-7. Epub 2014 Jun 24.

[da Silveira Franciozi CE, Ingham SJ, Gracitelli GC, Luzo MV, Fu FH, Abdalla RJ](#). Updates in biological therapies for knee injuries: anterior cruciate ligament. *Current Reviews in Musculoskeletal Medicine*. 2014 Sep;7(3):228-38.

[Araujo PH, Kfuri Junior M, Ohashi B, Hoshino Y, Zaffagnini S, Samuelsson K, Karlsson J, Fu F, Musahl V](#). Individualized ACL reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2014 Sep;22(9):1966-75. Epub 2014 Mar 13.

[Illingworth KD, Hensler D, Casagrande B, Borrero C, van Eck CF, Fu FH](#). Relationship between bone bruise volume and the presence of meniscal tears in acute anterior cruciate ligament rupture. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2014 Sep;22(9):2181-6. Epub 2013 Sep 4.

[Chu CR, Williams AA, West RV, Qian Y, Fu FH, Do BH, Bruno S](#). Quantitative Magnetic Resonance Imaging UTE-T2* Mapping of Cartilage and Meniscus Healing After Anatomic Anterior Cruciate Ligament Reconstruction. *American Journal of Sports Medicine*. 2014 Aug;42(8):1847-56. Epub 2014 May 8;42(8):1847-1856.

[Middleton KK, Muller B, Araujo PH, Fujimaki Y, Rabuck SJ, Irrgang JJ, Tashman S, Fu FH](#). Is the native ACL insertion site "completely restored" using an individualized approach to single-bundle ACL-R? *Knee Surgery, Sports Traumatology, Arthroscopy*. 2015 Aug;23(8):2145-50. Epub 2014 May 14.

[Iriuchishima T, Ryu K, Yorifuji H, Aizawa S, Fu FH](#). Commonly used ACL autograft areas do not correlate with the size of the ACL footprint or the femoral condyle. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2014 Jul;22(7):1573-9. Epub 2013 Jul 5.

[Tang J, Thorhauer E, Marsh C, Fu FH, Tashman S](#). Knee rotation influences the femoral tunnel angle measurement after anterior cruciate ligament reconstruction: a 3-dimensional computed tomography model study. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2014 Jul;22(7):1505-10. Epub 2013 Apr 16.

Gerlach

[Zhang Q, Schmelzer E, Gerlach JC, Nettleship I](#). A microstructural study of the degradation and calcium release from hydroxyapatite-calcium oxide ceramics made by infiltration. *Materials Science and Engineering. C, Materials for Biological Applications*. 2017 Apr 1;73:684-691. Epub 2016 Nov 30.

[Iwase H, Liu H, Schmelzer E, Ezzelarab M, Wijkstrom M, Hara H, Lee W, Singh J, Long C, Lagasse E, Gerlach JC, Cooper DKC, Gridelli B](#). Transplantation of hepatocytes from genetically engineered pigs into baboons. *Xenotransplantation*. 2017 Mar;24(2). Epub 2017 Jan 28.

[Esteban-Vives R, Young MT, Zhu T, Beiriger J, Pekar C, Ziembicki J, Corcos A, Rubin P, Gerlach JC](#). Calculations for reproducible autologous skin cell-spray grafting. *Burns*. 2016 Dec;42(8):1756-1765. Epub 2016 Aug 27.

[Esteban-Vives R, Choi MS, Young MT, Over P, Ziembicki J, Corcos A, Gerlach JC](#). Second-degree burns with six etiologies treated with autologous noncultured cell-spray grafting. *Burns*. 2016 Nov;42(7):e99-e106. Epub 2016 Aug 25.

[Esteban-Vives R, Young MT, Ziembicki J, Corcos A, Gerlach JC](#). Effects of wound dressings on cultured primary keratinocytes. *Burns*. 2016 Feb;42(1):81-90.

[Finoli A, Schmelzer E, Over P, Nettleship I, Gerlach JC](#). Open-Porous Hydroxyapatite Scaffolds for Three-Dimensional Culture of Human Adult Liver Cells. *BioMed Research International*. 2016;2016:6040146.

[Knöspel F, Freyer N, Stecklum M, Gerlach JC, Zeilinger K](#). Periodic harvesting of embryonic stem cells from a hollow-fiber membrane based four-compartment bioreactor. *Biotechnology Progress*. 2016 Jan-Feb;32(1):141-51.

[Schmelzer E, Over P, Gridelli B, Gerlach JC](#). Response of Primary Human Bone Marrow Mesenchymal Stromal Cells and Dermal Keratinocytes to Thermal Printer Materials In Vitro. *Journal of Medical and Biological Engineering*. 2016;36:153-167.

[Schmelzer E, Gerlach JC](#). Multicompartmental Hollow-Fiber-Based Bioreactors for Dynamic Three-Dimensional Perfusion Culture. *Methods in Molecular Biology*. 2016;1502:1-19.

[Lübberstedt M, Müller-Vieira U, Biemel KM, Darnell M, Hoffmann SA, Knöspel F, Wönne EC, Knobloch D, Nüssler AK, Gerlach JC, Andersson TB, Zeilinger K](#). Serum-free culture of primary human hepatocytes in a miniaturized hollow-fibre membrane bioreactor for pharmacological in vitro studies. *Journal of Tissue Engineering and Regenerative Medicine*. 2015 Sep;9(9):1017-26.

[Gerlach JC, Over P, Foka HG, Turner ME, Thompson RL, Gridelli B, Schmelzer E](#). Role of transcription factor CCAAT/enhancer-binding protein alpha in human fetal liver cell types in vitro. *Hepatology Research*. 2015 Aug;45(8):919-32.

[Pekor C, Gerlach JC, Nettleship I, Schmelzer E](#). Induction of Hepatic and Endothelial Differentiation by Perfusion in a Three-Dimensional Cell Culture Model of Human Fetal Liver. *Tissue Engineering Part C. Methods*. 2015 Jul;21(7):705-15.

[Plettig J, Johnen CM, Bräutigam K, Knöspel F, Wönne EC, Schubert F, Plöger F, Unger JK, Reutzel-Selke A, Bornemann R, Zeilinger K, Gerlach JC](#). Feasibility study of an active wound dressing based on hollow fiber membranes in a porcine wound model. *Burns*. 2015 Jun;41(4):778-88. Epub 2014 Oct 18.

[Schmelzer E, Finoli A, Nettleship I, Gerlach JC](#). Long-term three-dimensional perfusion culture of human adult bone marrow mononuclear cells in bioreactors. *Biotechnology and Bioengineering*. 2015 Apr;112(4):801-10. Epub 2015 Feb 23.

[Minteer DM, Young MT, Lin YC, Over PJ, Rubin JP, Gerlach JC, Marra KG](#). Analysis of type II diabetes mellitus adipose-derived stem cells for tissue engineering applications. *Journal of Tissue Engineering*. 2015 Apr 2;6:2041731415579215. eCollection 2015.

[Minteer DM, Gerlach JC, Marra KG](#). Bioreactors addressing diabetes mellitus. *Journal of Diabetes Science and Technology*. 2014 Nov;8(6):1227-32. Epub 2014 Aug 26.

Kameneva

[Bragin DE, Kameneva MV, Bragina OA, Thomson S, Statom GL, Lara DA, Yang Y, Nemoto EM](#). Rheological effects of drag-reducing polymers improve cerebral blood flow and oxygenation after traumatic brain injury in rats. *Journal of Cerebral Blood Flow and Metabolism*. 2017 Mar;37(3):762-775. Epub 2016 Dec 22.

[Ding Z, Joy M, Kameneva MV, Roy P](#). Nanomolar concentration of blood-soluble drag-reducing polymer inhibits experimental metastasis of human breast cancer cells. *Breast Cancer* (Dove Med Press). 2017 Feb 24;9:61-65. eCollection 2017.

[Olia SE, Herbertson LH, Malinauskas RA, Kameneva MV](#). A Reusable, Compliant, Small Volume Blood Reservoir for In Vitro Hemolysis Testing. *Artificial Organs*. 2017 Feb;41(2):175-178. Epub 2016 Apr 18.

[Griffin MT, Grzywinski MF, Voorhees HJ, Kameneva MV, Olia SE](#). Ex Vivo Assessment of a Parabolic-Tip Inflow Cannula for Pediatric Continuous-Flow VADs. *ASAIO Journal*. 2016 Sep-Oct;62(5):600-6.

[Olia SE, Maul TM, Antaki JF, Kameneva MV](#). Mechanical blood trauma in assisted circulation: sublethal RBC damage preceding hemolysis. *International Journal of Artificial Organs*. 2016 Jun 15;39(4):150-9.

[Bragin DE, Thomson S, Bragina O, Statom G, Kameneva MV, Nemoto EM](#). Drag-Reducing Polymer Enhances Microvascular Perfusion in the Traumatized Brain with Intracranial Hypertension. *Acta Neurochirurgica Supplement*. 2016;122:25-9.

[Bragin DE, Peng Z, Bragina OA, Statom GL, Kameneva MV, Nemoto EM](#). Improvement of Impaired Cerebral Microcirculation Using Rheological Modulation by Drag-Reducing Polymers. *Advances in Experimental Medicine and Biology*. 2016;923:239-44.

[Griffin MT, Grzywinski MF, Voorhees HJ, Kameneva MV, Olia SE](#). Ex Vivo Assessment of a Parabolic-Tip Inflow Cannula for Pediatric Continuous-Flow VADs. *ASAIO Journal*. 2016 Sep-Oct;62(5):600-6.

[Jamiolkowski MA, Woolley JR, Kameneva MV, Antaki JF, Wagner WR](#). Real time visualization and characterization of platelet deposition under flow onto clinically relevant opaque surfaces. *Journal of Biomedical Materials Research. Part A*. 2015 Apr;103(4):1303-11. Epub 2014 May 6.

[Herbertson LH, Olia SE, Daly A, Noatch CP, Smith WA, Kameneva MV, Malinauskas RA](#). Multilaboratory study of flow-induced hemolysis using the FDA benchmark nozzle model. *Artificial Organs*. 2015 Mar;39(3):237-48. Epub 2014 Sep 2.

[Shankarraman V, Kocyildirim E, Olia SE, Kameneva MV, Dzadony RJ, Maul TM, Simon MA, Champion HC, Wagner WR, Bermudez CA](#). Biocompatibility Assessment of the Levitronix® Centrimag® Adult ECMO Circuit in a Model of Acute Pulmonary Hypertension. *ASAIO Journal*. 2014 Jul-Aug;60(4):429-35.

[Daly A, Raval JS, Waters JH, Yazer MH, Kameneva MV](#). Effect of blood bank storage on the rheological properties of male and female donor red blood cells. *Clinical Hemorheology and Microcirculation*. 2014;56(4):337-45.

Kormos

[Nayak A, Neill C, Kormos RL, Lagazzi L, Halder I, McTiernan C, Larsen J, Inashvili A, Teuteberg J, Bachman TN, Hanley-Yanez K, McNamara DM, Simon MA](#). Chemokine receptor patterns and right heart failure in mechanical circulatory support. *Journal of Heart and Lung Transplantation*. 2017 Jun;36(6):657-665. Epub 2016 Dec 23.

[Maltais S, Aaronson KD, Teuteberg JJ, Slaughter MS, Najjar SS, Jeevanandam V, Pham DT, McGee E Jr, Leadley K, Kormos RL](#). Adverse Event Rates Change Favorably Over Time for Patients Bridged With the HeartWare Left Ventricular Assist Device. *ASAIO Journal*. 2017 May 4. [Epub ahead of print]

[Shah DK, Deo SV, Althouse AD, Teuteberg JJ, Park SJ, Kormos RL, Burkhart HM, Morell VO](#). Perioperative mortality is the Achilles heel for cardiac transplantation in adults with congenital heart disease: Evidence from analysis of the UNOS registry. *Journal of Cardiac Surgery*. 2016 Dec;31(12):755-764. Epub 2016 Oct 5.

[Loghmanpour NA, Kormos RL, Kanwar MK, Teuteberg JJ, Murali S, Antaki JF](#). A Bayesian Model to Predict Right Ventricular Failure Following Left Ventricular Assist Device Therapy. *JACC. Heart Failure*. 2016 Sep;4(9):711-21. Epub 2016 Jun 8.

[Ikonomidis JS, Ad N, Aldea GS, Argenziano M, Galloway AC, Hagberg RC, Kormos RL, Lawton JS, Mihaljevic T, Reece TB, Tseng EE](#). Vascular Operations Performed by Cardiothoracic Surgeons: The Society of Thoracic Surgeons Survey. *Annals of Thoracic Surgery*. 2016 Aug;102(2):589-92. Epub 2016 Apr 13.

[Rosenthal DN, Almond CS, Jaquiss RD, Peyton CE, Auerbach SR, Morales DR, Epstein DJ, Cantor RS, Kormos RL, Naftel DC, Butts RJ, Ghanayem NS, Kirklin JK, Blume ED](#). Adverse events in children implanted with ventricular assist devices in the United States: Data from the Pediatric Interagency Registry for Mechanical Circulatory Support (PediMACS). *Journal of Heart and Lung Transplantation*. 2016 May;35(5):569-77.

[Stevenson LW, Kormos RL, Young JB, Kirklin JK, Hunt SA](#). Major advantages and critical challenge for the proposed United States heart allocation system. *Journal of Heart and Lung Transplantation*. 2016 May;35(5):547-9.

[Kirklin JK, Cantor R, Mohacsi P, Gummert J, De By T, Hannan MM, Kormos RL, Schueler S, Lund LH, Nakatani T, Taylor R, Lannon J](#). First Annual IMACS Report: A global International Society for Heart and Lung Transplantation Registry for Mechanical Circulatory Support. *Journal of Heart and Lung Transplantation*. 2016 Apr;35(4):407-12.

[Althouse AD, Raffa GM, Kormos RL](#). Your Results, Explained: Clarity Provided by Row Percentages Versus Column Percentages. *Annals of Thoracic Surgery*. 2016 Jan;101(1):15-7. eview.

[Schwartzman D, Badhwar V, Kormos RL, Smith JD, Campbell PG, Weiss LE](#). A Plasma-Based, Amiodarone-Impregnated Material Decreases Susceptibility to Atrial Fibrillation in a Post-Cardiac Surgery Model. *Innovations (Phila)*. 2016 Jan-Feb;11(1):59-63; discussion 63.

[Anderson MB, Goldstein J, Milano C, Morris LD, Kormos RL, Bhama J, Kapur NK, Bansal A, Garcia J, Baker JN, Silvestry S, Holman WL, Douglas PS, O'Neill W](#). Benefits of a novel percutaneous ventricular assist device for right heart failure: The prospective RECOVER RIGHT study of the Impella RP device. *Journal of Heart and Lung Transplantation*. 2015 Dec;34(12):1549-60.

[Kirklin JK, Naftel DC, Pagani FD, Kormos RL, Myers S, Acker MA, Rogers J, Slaughter MS, Stevenson LW](#). Pump thrombosis in the Thoratec HeartMate II device: An update analysis of the INTERMACS Registry. *Journal of Heart and Lung Transplantation*. 2015 Dec;34(12):1515-26.

[Kirklin JK, Naftel DC, Pagani FD, Kormos RL, Stevenson LW, Blume ED, Myers SL, Miller MA, Baldwin JT, Young JB](#). Seventh INTERMACS annual report: 15,000 patients and counting. *Journal of Heart and Lung Transplantation*. 2015 Dec;34(12):1495-504.

[Flynn KE, Dew MA, Lin L, Fawzy M, Graham FL, Hahn EA, Hays RD, Kormos RL, Liu H, McNulty M, Weinfurt KP](#). Reliability and construct validity of PROMIS® measures for patients with heart failure who undergo heart transplant. *Quality of Life Research*. 2015 Nov;24(11):2591-9.

[Yang F, Kormos RL, Antaki JF](#). High-speed visualization of disturbed pathlines in axial flow ventricular assist device under pulsatile conditions. *Journal of Thoracic and Cardiovascular Surgery*. 2015 Oct;150(4):938-44.

[Teuteberg JJ, Slaughter MS, Rogers JG, McGee EC, Pagani FD, Gordon R, Rame E, Acker M, Kormos RL, Salerno C, Schleeter TP, Goldstein DJ, Shin J, Starling RC, Wozniak T, Malik AS, Silvestry S, Ewald GA, Jorde UP, Naka Y, Birks E, Najarian KB, Hathaway DR, Aaronson KD; ADVANCE Trial Investigators](#). The HVAD Left Ventricular Assist Device: Risk Factors for Neurological Events and Risk Mitigation Strategies. *JACC Heart Failure*. 2015 Oct;3(10):818-28.

[Woolley JR, Kormos RL, Teuteberg JJ, Bermudez CA, Bhama JK, Lockard KL, Kunz NM, Wagner WR](#). Preoperative liver dysfunction influences blood product administration and alterations in circulating haemostatic markers following ventricular assist device implantation. *European Journal of Cardio-thoracic Surgery*. 2015 Mar;47(3):497-504. Epub 2014 May 7.

[Adamson RM, Mangi AA, Kormos RL, Farrar DJ, Dembitsky WP](#). Principles of HeartMate II implantation to avoid pump malposition and migration. *Journal of Cardiac Surgery*. 2015 Mar;30(3):296-9.

[Kormos RL](#). Left ventricular assist device pump thrombosis: understanding mechanisms as a key to causality. *Journal of Thoracic and Cardiovascular Surgery*. 2015 Mar;149(3):673-4. Epub 2014 Dec 2.

[Kormos RL](#). Solutions for right ventricular failure: innovation driven by need. *Journal of Thoracic and Cardiovascular Surgery*. 2015 Mar;149(3):933-4. Epub 2014 Nov 20.

Lagasse

[Iwase H, Liu H, Schmelzer E, Ezzelarab M, Wijkstrom M, Hara H, Lee W, Singh J, Long C, Lagasse E, Gerlach JC, Cooper DKC, Gridelli B.](#) Transplantation of hepatocytes from genetically engineered pigs into baboons. *Xenotransplantation*. 2017 Mar;24(2). Epub 2017 Jan 28.

[Francipane MG, Lagasse E.](#) Therapeutic potential of mTOR inhibitors for targeting cancer stem cells. *British Journal of Clinical Pharmacology*. 2016 Nov;82(5):1180-1188. Epub 2015 Dec 26. Review.

[Kaseb HO, Fohrer-Ting H, Lewis DW, Lagasse E, Gollin SM.](#) Identification, expansion and characterization of cancer cells with stem cell properties from head and neck squamous cell carcinomas. *Experimental Cell Research*. 2016 Oct 15;348(1):75-86. Epub 2016 Sep 9.

[Francipane MG, Lagasse E.](#) Regenerating a kidney in a lymph node. *Pediatric Nephrology*. 2016 Oct;31(10):1553-60. Epub 2015 Dec 21. Review.

[Francipane MG, Lagasse E.](#) Pluripotent Stem Cells to Rebuild a Kidney: The Lymph Node as a Possible Developmental Niche. *Cell Transplantation*. 2016;25(6):1007-23.

[Keane TJ, DeWard A, Londono R, Saldin LT, Castleton AA, Carey L, Nieponice A, Lagasse E, Badylak SE.](#) Tissue-Specific Effects of Esophageal Extracellular Matrix. *Tissue Engineering Part A*. 2015 Sep;21(17-18):2293-300.

[Manohar R, Li Y, Fohrer H, Guzik L, Stolz DB, Chandran UR, LaFramboise WA, Lagasse E.](#) Identification of a candidate stem cell in human gallbladder. *Stem Cell Research*. 2015 May;14(3):258-69. Epub 2015 Feb 7.

[Wang X, Wei L, Cramer JM, Leibowitz BJ, Judge C, Epperly M, Greenberger J, Wang F, Li L, Stelzner MG, Dunn JC, Martin MG, Lagasse E, Zhang L, Yu J.](#) Pharmacologically blocking p53-dependent apoptosis protects intestinal stem cells and mice from radiation. *Scientific Reports*. 2015 Apr 10;5:8566.

[Francipane MG, Lagasse E.](#) The lymph node as a new site for kidney organogenesis. *Stem Cells Translational Medicine*. 2015 Mar;4(3):295-307. Epub 2015 Feb 2.

[Cramer JM, Thompson T, Geskin A, LaFramboise W, Lagasse E.](#) Distinct human stem cell populations in small and large intestine. *PLoS One*. 2015 Mar 9;10(3):e0118792. eCollection 2015.

[DeWard AD, Cramer J, Lagasse E.](#) Cellular heterogeneity in the mouse esophagus implicates the presence of a nonquiescent epithelial stem cell population. *Cell Reports*. 2014 Oct 23;9(2):701-11. Epub 2014 Oct 16.

[Cramer JM, Zimmerman MW, Thompson T, Homanics GE, Lazo JS, Lagasse E.](#) Deletion of Ptp4a3 reduces clonogenicity and tumor-initiation ability of colitis-associated cancer cells in mice. *Stem Cell Research*. 2014 Jul;13(1):164-71. Epub 2014 May 27.

Little

[Bayer EA, Jordan J, Roy A, Gottardi R, Fedorchak MV, Kumta PN, Little SR](#). Programmed Platelet-Derived Growth Factor-BB and Bone Morphogenetic Protein-2 Delivery from a Hybrid Calcium Phosphate/Alginate Scaffold. *Tissue Engineering Part A*. 2017 Jun 27. [Epub ahead of print]

[Washington MA, Swiner DJ, Bell KR, Fedorchak MV, Little SR, Meyer TY](#). The impact of monomer sequence and stereochemistry on the swelling and erosion of biodegradable poly(lactic-co-glycolic acid) matrices. *Biomaterials*. 2017 Feb;117:66-76. Epub 2016 Nov 24.

[Bayer EA, Fedorchak MV, Little SR](#). The Influence of Platelet-Derived Growth Factor and Bone Morphogenetic Protein Presentation on Tubule Organization by Human Umbilical Vascular Endothelial Cells and Human Mesenchymal Stem Cells in Coculture. *Tissue Engineering Part A*. 2016 Nov;22(21-22):1296-1304. Epub 2016 Oct 10.

[Roy A, Jhunjunwala S, Bayer E, Fedorchak M, Little SR, Kumta PN](#). Porous calcium phosphate-poly (lactic-co-glycolic) acid composite bone cement: A viable tunable drug delivery system. *Materials Science and Engineering. C, Materials for Biological Applications*. 2016 Feb;59:92-101.

[Francisconi CF, Vieira AE, Bigueti CC, Glowacki AJ, Trombone AP, Letra A, Menezes Silva R, Sfeir CS, Little SR, Garlet GP](#). Characterization of the Protective Role of Regulatory T Cells in Experimental Periapical Lesion Development and Their Chemoattraction Manipulation as a Therapeutic Tool. *Journal of Endodontics*. 2016 Jan;42(1):120-6.

[Guaragno ML, Gottardi R, Fedorchak MV, Roy A, Kumta PN, Little SR](#). One-step synthesis of fluorescently labelled, single-walled carbon nanotubes. *Chemical Communications (Camb)*. 2015 Dec 18;51(97):17233-6.

[Bayer EA, Gottardi R, Fedorchak MV, Little SR](#). The scope and sequence of growth factor delivery for vascularized bone tissue regeneration. *Journal of Controlled Release*. 2015 Dec 10;219:129-40. Review.

[Fisher JD, Acharya AP, Little SR](#). Micro and nanoparticle drug delivery systems for preventing allotransplant rejection. *Clinical Immunology*. 2015 Sep;160(1):24-35. Review.

[Knab TD, Little SR, Parker RS](#). A systems approach to modeling drug release from polymer microspheres to accelerate in vitro to in vivo translation. *Journal of Controlled Release*. 2015 Aug 10;211:74-84.

[Lash MH, Fedorchak MV, McCarthy JJ, Little SR](#). Scaling up self-assembly: bottom-up approaches to macroscopic particle organization. *Soft Matter*. 2015 Jul 28;11(28):5597-609.

[Balmert SC, Zmolek AC, Glowacki AJ, Knab TD, Rothstein SN, Wokpetah JM, Fedorchak MV, Little SR](#). Positive Charge of "Sticky" Peptides and Proteins Impedes Release From Negatively Charged PLGA Matrices. *Journal of Materials Chemistry. B, Materials for Biology and Medicine*. 2015 Jun 21;3(23):4723-4734.

[Lash MH, Jordan JC, Blevins LC, Fedorchak MV, Little SR, McCarthy JJ.](#) Non-Brownian particle-based materials with microscale and nanoscale hierarchy. *Angewandte Chemie International Edition-English*. 2015 May 11;54(20):5854-8. Epub 2015 Apr 17.

[Glowacki AJ, Gottardi R, Yoshizawa S, Cavalla F, Garlet GP, Sfeir C, Little SR.](#) Strategies to direct the enrichment, expansion, and recruitment of regulatory cells for the treatment of disease. *Annals of Biomedical Engineering*. 2015 Mar;43(3):593-602. Epub 2014 Sep 23.

[Araujo-Pires AC, Vieira AE, Francisconi CF, Biguetti CC, Glowacki A, Yoshizawa S, Campanelli AP, Trombone AP, Sfeir CS, Little SR, Garlet GP.](#) IL-4/CCL22/CCR4 axis controls regulatory T-cell migration that suppresses inflammatory bone loss in murine experimental periodontitis. *Journal of Bone and Mineral Research*. 2015 Mar;30(3):412-22.

[Lash MH, Fedorchak MV, Little SR, McCarthy JJ.](#) Fabrication and characterization of non-Brownian particle-based crystals. *Langmuir*. 2015 Jan 27;31(3):898-905. Epub 2014 Jul 15.

[Garlet GP, Sfeir CS, Little SR.](#) Restoring host-microbe homeostasis via selective chemoattraction of Tregs. *Journal of Dental Research*. 2014 Sep;93(9):834-9. Epub 2014 Jul 23. Review.

[Fu HL, Hong Y, Little SR, Wagner WR.](#) Collagenase-labile polyurethane urea synthesis and processing into hollow fiber membranes. *Biomacromolecules*. 2014 Aug 11;15(8):2924-32. Epub 2014 Jul 28.

[Fedorchak MV, Conner IP, Medina CA, Wingard JB, Schuman JS, Little SR.](#) 28-day intraocular pressure reduction with a single dose of brimonidine tartrate-loaded microspheres. *Experimental Eye Research*. 2014 Aug;125:210-6. Epub 2014 Jun 28.

Marra

[Kokai LE, Traktuev DO, Zhang L, Merfeld-Clauss S, DiBernardo G, Lu H, Marra KG, Donnemberg A, Donnemberg V, Meyer EM, Fodor PB, March KL, Rubin JP.](#) Adipose Stem Cell Function Maintained with Age: An Intra-Subject Study of Long-Term Cryopreserved Cells. *Aesthetic Surgery Journal*. 2017 Apr 1;37(4):454-463.

[Sivak WN, White JD, Bliley JM, Tien LW, Liao HT, Kaplan DL, Marra KG.](#) Delivery of chondroitinase ABC and glial cell line-derived neurotrophic factor from silk fibroin conduits enhances peripheral nerve regeneration. *Journal of Tissue Engineering and Regenerative Medicine*. 2017 Mar;11(3):733-742. Epub 2014 Nov 25.

[Unadkat JV, Schnider JT, Feturi FG, Tsuji W, Bliley JM, Venkataramanan R, Solari MG, Marra KG, Gorantla VS, Spiess AM.](#) Single Implantable FK506 Disk Prevents Rejection in Vascularized Composite Allotransplantation. *Plastic and Reconstructive Surgery*. 2017 Feb;139(2):403e-414e.

[Plock JA, Schnider JT, Schweizer R, Zhang W, Tsuji W, Waldner M, Solari MG, Marra KG, Rubin JP, Gorantla VS.](#) The Influence of Timing and Frequency of Adipose-Derived Mesenchymal Stem Cell Therapy on Immunomodulation Outcomes After Vascularized Composite Allotransplantation. *Transplantation*. 2017 Jan;101(1):e1-e11.

[Bliley JM, Argenta A, Satish L, McLaughlin MM, Dees A, Tompkins-Rhoades C, Marra KG, Rubin JP.](#) Administration of adipose-derived stem cells enhances vascularity, induces collagen deposition, and dermal adipogenesis in burn wounds. *Burns*. 2016 Sep;42(6):1212-22. Epub 2016 Jul 7.

[Abbott RD, Wang RY, Reagan MR, Chen Y, Borowsky FE, Zieba A, Marra KG, Rubin JP, Ghobrial IM, Kaplan DL.](#) The Use of Silk as a Scaffold for Mature, Sustainable Unilocular Adipose 3D Tissue Engineered Systems. *Advanced Healthcare Materials*. 2016 Jul;5(13):1667-77. Epub 2016 May 19.

[Ding X, Nguyen MM, James IB, Marra KG, Rubin JP, Leers SA, Kim K.](#) Improved Estimation of Ultrasound Thermal Strain Using Pulse Inversion Harmonic Imaging. *Ultrasound in Medicine and Biology*. 2016 May;42(5):1182-92.

[Roach BL, Kelmendi-Doko A, Balutis EC, Marra KG, Ateshian GA, Hung CT.](#) Dexamethasone Release from Within Engineered Cartilage as a Chondroprotective Strategy Against Interleukin-1 α . *Tissue Engineering Part A*. 2016 Apr;22(7-8):621-32.

[Bourne DA, James IB, Wang SS, Marra KG, Rubin JP.](#) The Architecture of Fat Grafting: What Lies beneath the Surface. *Plastic and Reconstructive Surgery*. 2016 Mar;137(3):1072-9.

[Kokai LE, Marra KG, Kershaw EE.](#) Three-Dimensional Adipocyte Culture: The Next Frontier for Adipocyte Biology Discovery. *Endocrinology*. 2015 Dec;156(12):4375-6.

[Bliley JM, Satish L, McLaughlin MM, Kling RE, Day JR, Grahovac TL, Kokai LE, Zhang W, Marra KG, Rubin JP.](#) Imaging the Stromal Vascular Fraction during Soft-Tissue Reconstruction. *Plastic and Reconstructive Surgery*. 2015 Dec;136(6):1205-15.

[Hopkins TM, Heilman AM, Liggett JA, LaSance K, Little KJ, Hom DB, Minteer DM, Marra KG, Pixley SK.](#) Combining micro-computed tomography with histology to analyze biomedical implants for peripheral nerve repair. *Journal of Neuroscience Methods*. 2015 Nov 30;255:122-30.

[Liao HT, James IB, Marra KG, Rubin JP.](#) The Effects of Platelet-Rich Plasma on Cell Proliferation and Adipogenic Potential of Adipose-Derived Stem Cells. *Tissue Engineering Part A*. 2015 Nov;21(21-22):2714-22.

[Plock JA, Schnider JT, Zhang W, Schweizer R, Tsuji W, Kostereva N, Fanzio PM, Ravuri S, Solari MG, Cheng HY, Rubin JP, Marra KG, Gorantla VS.](#) Adipose- and Bone Marrow-Derived Mesenchymal Stem Cells Prolong Graft Survival in Vascularized Composite Allotransplantation. *Transplantation*. 2015 Sep;99(9):1765-73.

[Satish L, Krill-Burger JM, Gallo PH, Etages SD, Liu F, Philips BJ, Ravuri S, Marra KG, LaFramboise WA, Kathju S, Rubin JP.](#) Expression analysis of human adipose-derived stem cells during in vitro differentiation to an adipocyte lineage. *BMC Medical Genomics*. 2015 Jul 24;8:41.

[Freese KE, Kokai L, Edwards RP, Philips BJ, Sheikh MA, Kelley J, Comerci J, Marra KG, Rubin JP, Linkov F.](#) Adipose-derived stems cells and their role in human cancer development,

growth, progression, and metastasis: a systematic review. *Cancer Research*. 2015 Apr 1;75(7):1161-8. Epub 2015 Mar 3. Review.

[Minteer DM, Marra KG, Rubin JP](#). Adipose stem cells: biology, safety, regulation, and regenerative potential. *Clinics in Plastic Surgery*. 2015 Apr;42(2):169-79. Review.

[Bellas E, Lo TJ, Fournier EP, Brown JE, Abbott RD, Gil ES, Marra KG, Rubin JP, Leisk GG, Kaplan DL](#). Injectable silk foams for soft tissue regeneration. *Advanced Healthcare Materials*. 2015 Feb 18;4(3):452-9. Epub 2014 Oct 16.

[Tsuji W, Schnider JT, McLaughlin MM, Schweizer R, Zhang W, Solari MG, Rubin JP, Marra KG, Plock JA, Gorantla VS](#). Effects of immunosuppressive drugs on viability and susceptibility of adipose- and bone marrow-derived mesenchymal stem cells. *Frontiers in Immunology*. 2015 Apr 16;6:131. eCollection 2015.

[Minteer DM, Young MT, Lin YC, Over PJ, Rubin JP, Gerlach JC, Marra KG](#). Analysis of type II diabetes mellitus adipose-derived stem cells for tissue engineering applications. *Journal of Tissue Engineering*. 2015 Apr 2;6:2041731415579215. eCollection 2015.

[Schweizer R, Tsuji W, Gorantla VS, Marra KG, Rubin JP, Plock JA](#). The role of adipose-derived stem cells in breast cancer progression and metastasis. *Stem Cells International*. 2015;2015:120949. Epub 2015 Apr 27. Review.

[Sivak WN, White JD, Bliley JM, Tien LW, Liao HT, Kaplan DL, Marra KG](#). Delivery of chondroitinase ABC and glial cell line-derived neurotrophic factor from silk fibroin conduits enhances peripheral nerve regeneration. *Journal of Tissue Engineering, Regenerative Medicine*. 2014 Nov 25. [Epub ahead of print]

[Minteer DM, Gerlach JC, Marra KG](#). Bioreactors addressing diabetes mellitus. *Journal of Diabetes Science and Technology*. 2014 Nov;8(6):1227-32. Epub 2014 Aug 26.

[Gause TM 2nd, Kling RE, Sivak WN, Marra KG, Rubin JP, Kokai LE](#). Particle size in fat graft retention: A review on the impact of harvesting technique in lipofilling surgical outcomes. *Adipocyte*. 2014 Dec 10;3(4):273-9. eCollection 2014 Oct-Dec. Review.

[Zhang P, Ravuri SK, Wang J, Marra KG, Kling RE, Chai J](#). Exogenous connective tissue growth factor preserves the hair-inductive ability of human dermal papilla cells. *International Journal of Cosmetic Science*. 2014 Oct;36(5):442-50. Epub 2014 Jul 30.

[Kelmendi-Doko A, Marra KG, Vidic N, Tan H, Rubin JP](#). Adipogenic Factor-Loaded Microspheres Increase Retention of Transplanted Adipose Tissue. *Tissue Engineering Part A*. 2014 Sep;20(17-18):2283-90. Epub 2014 Apr 14.

[Liao HT, Marra KG, Rubin JP](#). Application of platelet-rich plasma and platelet-rich fibrin in fat grafting: basic science and literature review. *Tissue Engineering, Part B, Reviews*. 2014 Aug;20(4):267-76. Epub 2013 Dec 18. Review.

[Tsuji W, Rubin JP, Marra KG](#). Adipose-derived stem cells: Implications in tissue regeneration. *World Journal of Stem Cells*. 2014 Jul 26;6(3):312-21. Review.

Monga

[Tao J, Zhang R, Singh S, Poddar M, Xu E, Oertel M, Chen X, Ganesh S, Abrams M, Monga SP.](#) Targeting β -catenin in hepatocellular cancers induced by coexpression of mutant β -catenin and K-Ras in mice. *Hepatology*. 2017 May;65(5):1581-1599. Epub 2017 Feb 6.

[Preziosi ME, Monga SP.](#) Update on the Mechanisms of Liver Regeneration. *Seminars in Liver Disease*. 2017 May;37(2):141-151. Epub 2017 May 31.

[Chen ZH, Yu YP, Tao J, Liu S, Tseng G, Nalesnik M, Hamilton R, Bhargava R, Nelson JB, Pennathur A, Monga SP, Luketich JD, Michalopoulos GK, Luo JH.](#) MAN2A1-FER Fusion Gene Is Expressed by Human Liver and Other Tumor Types and Has Oncogenic Activity in Mice. *Gastroenterology*. 2017 Feb 25. pii: S0016-5085(17)30004-5. [Epub ahead of print]

[Bell D, Ranganathan S, Tao J, Monga SP.](#) Novel Advances in Understanding of Molecular Pathogenesis of Hepatoblastoma: A Wnt/ β -Catenin Perspective. *Gene Expression*. 2017 Feb 10;17(2):141-154. Epub 2016 Nov 2.

[Soto-Gutierrez A, Gough A, Verneti LA, Taylor DL, Monga SP.](#) Pre-clinical and clinical investigations of metabolic zonation in liver diseases: The potential of microphysiology systems. *Experimental Biology and Medicine (Maywood)*. 2017 Jan 1:1535370217707731. [Epub ahead of print]

[Wang H, Lu J, Edmunds LR, Kulkarni S, Dolezal J, Tao J, Ranganathan S, Jackson L, Fromherz M, Beer-Stolz D, Uppala R, Bharathi S, Monga SP, Goetzman ES, Prochownik EV.](#) Coordinated Activities of Multiple Myc-dependent and Myc-independent Biosynthetic Pathways in Hepatoblastoma. *Journal of Biological Chemistry*. 2016 Dec 16;291(51):26241-26251. Epub 2016 Oct 13.

[Okabe H, Yang J, Sylakowski K, Yovchev M, Miyagawa Y, Nagarajan S, Chikina M, Thompson M, Oertel M, Baba H, Monga SP, Nejak-Bowen KN.](#) Wnt signaling regulates hepatobiliary repair following cholestatic liver injury in mice. *Hepatology*. 2016 Nov;64(5):1652-1666. Epub 2016 Sep 26.

[Tao J, Xu E, Zhao Y, Singh S, Li X, Couchy G, Chen X, Zucman-Rossi J, Chikina M, Monga SP.](#) Modeling a human hepatocellular carcinoma subset in mice through coexpression of met and point-mutant β -catenin. *Hepatology*. 2016 Nov;64(5):1587-1605. Epub 2016 May 28.

[Dar MS, Singh P, Singh G, Jamwal G, Hussain SS, Rana A, Akhter Y, Monga SP, Dar MJ.](#) Terminal regions of β -catenin are critical for regulating its adhesion and transcription functions. *Biochimica et Biophysica Acta*. 2016 Sep;1863(9):2345-57. Epub 2016 Jun 29.

[Ganesh S, Koser ML, Cyr WA, Chopda GR, Tao J, Shui X, Ying B, Chen D, Pandya P, Chipumuro E, Siddiquee Z, Craig K, Lai C, Dudek H, Monga SP, Wang W, Brown BD, Abrams MT.](#) Direct Pharmacological Inhibition of β -Catenin by RNA Interference in Tumors of Diverse Origin. *Molecular Cancer Therapy*. 2016 Sep;15(9):2143-54. Epub 2016 Jul 7.

[Edmunds LR, Otero PA, Sharma L, D'Souza S, Dolezal JM, David S, Lu J, Lamm L, Basantani M, Zhang P, Sipula IJ, Li L, Zeng X, Ding Y, Ding F, Beck ME, Vockley J, Monga SP, Kershaw EE, O'Doherty RM, Kratz LE, Yates NA, Goetzman EP, Scott D, Duncan AW, Prochownik EV.](#)

Abnormal lipid processing but normal long-term repopulation potential of myc^{-/-} hepatocytes. *Oncotarget*. 2016 May 24;7(21):30379-95.

[Okabe H, Kinoshita H, Imai K, Nakagawa S, Higashi T, Arima K, Uchiyama H, Ikegami T, Harimoto N, Itoh S, Ishiko T, Yoshizumi T, Beppu T, Monga SP, Baba H, Maehara Y.](#) Diverse Basis of β -Catenin Activation in Human Hepatocellular Carcinoma: Implications in Biology and Prognosis. *PLoS One*. 2016 Apr 21;11(4):e0152695.

[Al-Bataineh MM, Kinlough CL, Poland PA, Pastor-Soler NM, Sutton TA, Mang HE, Bastacky SI, Gendler SJ, Madsen CS, Singh S, Monga SP, Hughey RP.](#) Mucl enhances the β -catenin protective pathway during ischemia-reperfusion injury. *American Journal of Physiology. Renal Physiology*. 2016 Mar 15;310(6):F569-79.

[Huang J, Schriefer AE, Cliften PF, Dietzen D, Kulkarni S, Sing S, Monga SP, Rudnick DA.](#) Postponing the Hypoglycemic Response to Partial Hepatectomy Delays Mouse Liver Regeneration. *American Journal of Pathology*. 2016 Mar;186(3):587-99.

[Ko S, Choi TY, Russell JO, So J, Monga SP, Shin D.](#) Bromodomain and extraterminal (BET) proteins regulate biliary-driven liver regeneration. *Journal of Hepatology*. 2016 Feb;64(2):316-25.

[Cordi S, Godard C, Saandi T, Jacquemin P, Monga SP, Colnot S, Lemaigre FP.](#) Role of β -catenin in development of bile ducts. *Differentiation*. 2016 Jan-Mar;91(1-3):42-9.

[Alvarado TF, Puliga E, Preziosi M, Poddar M, Singh S, Columbano A, Nejak-Bowen K, Monga SP.](#) Thyroid Hormone Receptor β Agonist Induces β -Catenin-Dependent Hepatocyte Proliferation in Mice: Implications in Hepatic Regeneration. *Gene Expressions*. 2016;17(1):19-34.

[Zhou L, Pradhan-Sundt T, Poddar M, Singh S, Kikuchi A, Stolz DB, Shou W, Li Z, Nejak-Bowen KN, Monga SP.](#) Mice with Hepatic Loss of the Desmosomal Protein γ -Catenin Are Prone to Cholestatic Injury and Chemical Carcinogenesis. *American Journal of Pathology*. 2015 Dec;185(12):3274-89.

[Eisses JF, Criscimanna A, Dionise ZR, Orabi AI, Javed TA, Sarwar S, Jin S, Zhou L, Singh S, Poddar M, Davis AW, Tosun AB, Ozolek JA, Lowe ME, Monga SP, Rohde GK, Esni F, Husain SZ.](#) Valproic Acid Limits Pancreatic Recovery after Pancreatitis by Inhibiting Histone Deacetylases and Preventing Acinar Redifferentiation Programs. *American Journal of Pathology*. 2015 Dec;185(12):3304-15.

[Wang G, Wang H, Singh S, Zhou P, Yang S, Wang Y, Zhu Z, Zhang J, Chen A, Billiar T, Monga SP, Wang Q.](#) ADAR1 Prevents Liver Injury from Inflammation and Suppresses Interferon Production in Hepatocytes. *American Journal of Pathology*. 2015 Dec;185(12):3224-37.

[Yang J, Cusimano A, Monga JK, Preziosi ME, Pullara F, Calero G, Lang R, Yamaguchi TP, Nejak-Bowen KN, Monga SP.](#) WNT5A inhibits hepatocyte proliferation and concludes β -catenin signaling in liver regeneration. *American Journal of Pathology*. 2015 Aug;185(8):2194-205.

[Pastor-Soler NM, Sutton TA, Mang HE, Kinlough CL, Gendler SJ, Madsen CS, Bastacky SI, Ho J, Al-Bataineh MM, Hallows KR, Singh S, Monga SP, Kobayashi H, Haase VH, Hughey RP.](#) Muc1 is protective during kidney ischemia-reperfusion injury. *American Journal of Physiology. Renal Physiology*. 2015 Jun 15;308(12):F1452-62. Epub 2015 Apr 29.

[Monga SP.](#) β -Catenin Signaling and Roles in Liver Homeostasis, Injury, and Tumorigenesis. *Gastroenterology*. 2015 Jun;148(7):1294-310. Epub 2015 Mar 5. Review.

[Delgado E, Okabe H, Preziosi M, Russell JO, Alvarado TF, Oertel M, Nejak-Bowen KN, Zhang Y, Monga SP.](#) Complete response of Ctnnb1-mutated tumours to β -catenin suppression by locked nucleic acid antisense in a mouse hepatocarcinogenesis model. *Journal of Hepatology*. 2015 Feb;62(2):380-7. Epub 2014 Oct 18.

[Kikuchi A, Monga SP.](#) PDGFR α in liver pathophysiology: emerging roles in development, regeneration, fibrosis, and cancer. *Gene Expressions*. 2015;16(3):109-27. Review.

[Bhushan B, Walesky C, Manley M, Gallagher T, Borude P, Edwards G, Monga SP, Apte U.](#) Pro-regenerative signaling after acetaminophen-induced acute liver injury in mice identified using a novel incremental dose model. *American Journal of Pathology*. 2014 Nov;184(11):3013-25. Epub 2014 Sep 2.

[Tao J, Calvisi DF, Ranganathan S, Cigliano A, Zhou L, Singh S, Jiang L, Fan B, Terracciano L, Armeanu-Ebinger S, Ribback S, Dombrowski F, Evert M, Chen X, Monga SP.](#) Activation of β -Catenin and Yap1 in Human Hepatoblastoma and Induction of Hepatocarcinogenesis in Mice. *Gastroenterology*. 2014 Sep;147(3):690-701. Epub 2014 May 14.

[Yang J, Mowry LE, Nejak-Bowen KN, Okabe H, Diegel CR, Lang RA, Williams BO, Monga SP.](#) β -catenin signaling in murine liver zonation and regeneration: a Wnt-Wnt situation! *Hepatology*. 2014 Sep;60(3):964-76. Epub 2014 Jul 25.

[Delgado ER, Yang J, So J, Leimgruber S, Kahn M, Ishitani T, Shin D, Mustata Wilson G, Monga SP.](#) Identification and characterization of a novel small-molecule inhibitor of β -catenin signaling. *American Journal of Pathology*. 2014 Jul;184(7):2111-22. Epub 2014 May 10.

Rubin

[Wang S, Nie D, Rubin JP, Kokai L.](#) Lymphatic Endothelial Cells under Mechanical Stress: Altered Expression of Inflammatory Cytokines and Fibrosis. *Lymphatic Research and Biology*. 2017 Jun;15(2):130-135. Epub 2017 May 9.

[Czerniak S, Gusenoff JA, Rubin JP.](#) Discussion: Safety of Outpatient Circumferential Body Lift: Evidence from 42 Consecutive Cases. *Plastic and Reconstructive Surgery*. 2017 Jun;139(6):1363-1364.

[Rubin JP, D'Amico RA, Rodriguez R, Coleman SR, Cederna P, Glasberg S, Neumeister M, Song DH, Butler C, Hume KM.](#) Regulatory Advocacy Update: American Society of Plastic Surgeons Comments in Response to the U.S. Food and Drug Administration Draft Guidance Documents on Human Cell and Tissue Products. *Plastic and Reconstructive Surgery*. 2017 May;139(5):1259-1261.

[Coombs DM, Srivastava U, Amar D, Rubin JP, Gusenoff JA](#). The Challenges of Augmentation Mastopexy in the Massive Weight Loss Patient: Technical Considerations. *Plastic and Reconstructive Surgery*. 2017 May;139(5):1090-1099.

[Kokai LE, Traktuev DO, Zhang L, Merfeld-Clauss S, DiBernardo G, Lu H, Marra KG, Donnenberg A, Donnenberg V, Meyer EM, Fodor PB, March KL, Rubin JP](#). Adipose Stem Cell Function Maintained with Age: An Intra-Subject Study of Long-Term Cryopreserved Cells. *Aesthetic Surgery Journal*. 2017 Apr 1;37(4):454-463.

[Rubin JP, D'Amico RA, Rodriguez R, Coleman SR, Cederna P, Glasberg S, Neumeister M, Song DH, Butler C, Hume KM](#). Regulatory Advocacy Update: ASPS Comments in Response to the FDA Draft Guidance Documents on Human Cell and Tissue Products. *Plastic and Reconstructive Surgery*. 2017 Feb 9.

[Bykowski MR, Rubin JP, Gusenoff JA](#). The Impact of Abdominal Contouring with Monsplasty on Sexual Function and Urogenital Distress in Women Following Massive Weight Loss. *Aesthetic Surgery Journal*. 2017 Jan;37(1):63-70. Epub 2016 Oct 25.

[Plock JA, Schnider JT, Schweizer R, Zhang W, Tsuji W, Waldner M, Solari MG, Marra KG, Rubin JP, Gorantla VS](#). The Influence of Timing and Frequency of Adipose-Derived Mesenchymal Stem Cell Therapy on Immunomodulation Outcomes After Vascularized Composite Allotransplantation. *Transplantation*. 2017 Jan;101(1):e1-e11.

[Krawiec JT, Liao HT, Kwan LL, D'Amore A, Weinbaum JS, Rubin JP, Wagner WR, Vorp DA](#). Evaluation of the stromal vascular fraction of adipose tissue as the basis for a stem cell-based tissue-engineered vascular graft. *Journal of Vascular Surgery*. 2016 Dec 22. pii: S0741-5214(16)31277-0. [Epub ahead of print]

[Sivak WN, Ruane EJ, Hausman SJ, Rubin JP, Spiess AM](#). Decellularized Matrix and Supplemental Fat Grafting Leads to Regeneration following Traumatic Fingertip Amputation. *Plastic and Reconstructive Surgery. Global Open*. 2016 Oct 12;4(10):e1094. eCollection 2016 Oct.

[Kokai LE, Rubin JP](#). Discussion: Mechanically Isolated Stromal Vascular Fraction Provides a Valid and Useful Collagenase-Free Alternative Technique: A Comparative Study. *Plastic and Reconstructive Surgery*. 2016 Oct;138(4):820-1.

[Bliley JM, Argenta A, Satish L, McLaughlin MM, Dees A, Tompkins-Rhoades C, Marra KG, Rubin JP](#). Administration of adipose-derived stem cells enhances vascularity, induces collagen deposition, and dermal adipogenesis in burn wounds. *Burns*. 2016 Sep;42(6):1212-22. Epub 2016 Jul 7.

[Abbott RD, Wang RY, Reagan MR, Chen Y, Borowsky FE, Zieba A, Marra KG, Rubin JP, Ghobrial IM, Kaplan DL](#). The Use of Silk as a Scaffold for Mature, Sustainable Unilocular Adipose 3D Tissue Engineered Systems. *Advanced Healthcare Materials*. 2016 Jul;5(13):1667-77. Epub 2016 May 19.

[James IB, Coleman SR, Rubin JP](#). Fat, Stem Cells, and Platelet-Rich Plasma. *Clinics in Plastic Surgery*. 2016 Jul;43(3):473-88. Review.

[Krawiec JT, Weinbaum JS, Liao HT, Ramaswamy AK, Pezzone DJ, Josowitz AD, D'Amore A, Rubin JP, Wagner WR, Vorp DA.](#) In Vivo Functional Evaluation of Tissue-Engineered Vascular Grafts Fabricated Using Human Adipose-Derived Stem Cells from High Cardiovascular Risk Populations. *Tissue Engineering Part A*. 2016 May;22(9-10):765-75.

[Ding X, Nguyen MM, James IB, Marra KG, Rubin JP, Leers SA, Kim K.](#) Improved Estimation of Ultrasound Thermal Strain Using Pulse Inversion Harmonic Imaging. *Ultrasound in Medicine and Biology*. 2016 May;42(5):1182-92.

[Kling RE, Tobler WD Jr, Gusenoff JA, Rubin JP.](#) Avoiding Complications in Gigantomastia. *Clinics in Plastic Surgery*. 2016 Apr;43(2):429-39. Review.

[Han N, Yabroudi MA, Stearns-Reider K, Helkowski W, Sicari BM, Rubin JP, Badylak SF, Boninger ML, Ambrosio F.](#) Electrodiagnostic Evaluation of Individuals Implanted With Extracellular Matrix for the Treatment of Volumetric Muscle Injury: Case Series. *Physical Therapy*. 2016 Apr;96(4):540-9.

[Almutairi K, Gusenoff JA, Rubin JP.](#) Body Contouring. *Plastic and Reconstructive Surgery*. 2016 Mar;137(3):586e-602e. Review.

[Bourne DA, James IB, Wang SS, Marra KG, Rubin JP.](#) The Architecture of Fat Grafting: What Lies beneath the Surface. *Plastic and Reconstructive Surgery*. 2016 Mar;137(3):1072-9.

[Rubin JP, Gurtner GC, Liu W, March KL, Seppänen-Kajjansinkko R, Yaszemski MJ, Yoo JJ.](#) Surgical Therapies and Tissue Engineering: At the Intersection Between Innovation and Regulation. *Tissue Engineering Part A*. 2016 Mar;22(5-6):397-400.

[Dreifuss SE, Rubin JP.](#) Insurance coverage for massive weight loss panniculectomy: a national survey and implications for policy. *Surgery for Obesity and Related Diseases*. 2016 Feb;12(2):412-6.

[Bliley JM, Satish L, McLaughlin MM, Kling RE, Day JR, Grahovac TL, Kokai LE, Zhang W, Marra KG, Rubin JP.](#) Imaging the Stromal Vascular Fraction during Soft-Tissue Reconstruction. *Plastic and Reconstructive Surgery*. 2015 Dec;136(6):1205-15.

[Afrooz PN, Shakir S, James IB, Rubin JP, Gusenoff JA.](#) Dynamics of Gluteal Cleft Morphology in Lower Body Lift: Predictors of Unfavorable Outcomes. *Plastic and Reconstructive Surgery*. 2015 Dec;136(6):1167-73.

[Liao HT, James IB, Marra KG, Rubin JP.](#) The Effects of Platelet-Rich Plasma on Cell Proliferation and Adipogenic Potential of Adipose-Derived Stem Cells. *Tissue Engineering Part A*. 2015 Nov;21(21-22):2714-22.

[Strong AL, Cederna PS, Rubin JP, Coleman SR, Levi B.](#) The Current State of Fat Grafting: A Review of Harvesting, Processing, and Injection Techniques. *Plastic and Reconstructive Surgery*. 2015 Oct;136(4):897-912. Review.

[Hunstad JP, Michaels J, Burns AJ, Slezak S, Stevens WG, Clower DM, Rubin JP.](#) A Prospective, Randomized, Multicenter Trial Assessing a Novel Lysine-Derived Urethane Adhesive in a Large Flap Surgical Procedure without Drains. *Aesthetic Plastic Surgery*. 2015 Aug;39(4):616-24.

[Plock JA, Schnider JT, Zhang W, Schweizer R, Tsuji W, Kostereva N, Fanzio PM, Ravuri S, Solari MG, Cheng HY, Rubin JP, Marra KG, Gorantla VS.](#) Adipose- and Bone Marrow-Derived Mesenchymal Stem Cells Prolong Graft Survival in Vascularized Composite Allotransplantation. *Transplantation*. 2015 Sep;99(9):1765-73.

[Satish L, Krill-Burger JM, Gallo PH, Etages SD, Liu F, Philips BJ, Ravuri S, Marra KG, LaFramboise WA, Kathju S, Rubin JP.](#) Expression analysis of human adipose-derived stem cells during in vitro differentiation to an adipocyte lineage. *BMC Medical Genomics*. 2015 Jul 24;8:41.

[Donnenberg AD, Meyer EM, Rubin JP, Donnenberg VS.](#) The cell-surface proteome of cultured adipose stromal cells. *Cytometry. Part A*. 2015 Jul;87(7):665-74.

[Michaels J, Coon D, Mulvey CL, Rubin JP.](#) Venous thromboembolism prophylaxis in the massive weight loss patient: relative risk of bleeding. *Annals of Plastic Surgery*. 2015 Jun;74(6):699-702.

[Freese KE, Kokai L, Edwards RP, Philips BJ, Sheikh MA, Kelley J, Comerci J, Marra KG, Rubin JP, Linkov F.](#) Adipose-derived stems cells and their role in human cancer development, growth, progression, and metastasis: a systematic review. *Cancer Research*. 2015 Apr 1;75(7):1161-8. Epub 2015 Mar 3. Review.

[Minteer DM, Marra KG, Rubin JP.](#) Adipose stem cells: biology, safety, regulation, and regenerative potential. *Clinics in Plastic Surgery*. 2015 Apr;42(2):169-79. Review.

[Friedman T, Coon D, Kanbour-Shakir A, Michaels J 5th, Rubin JP.](#) Defining the lymphatic system of the anterior abdominal wall: an anatomical study. *Plastic and Reconstructive Surgery*. 2015 Apr;135(4):1027-32.

[Srivastava U, Rubin JP, Gusenoff JA.](#) Lower body lift after massive weight loss: autoaugmentation versus no augmentation. *Plastic and Reconstructive Surgery*. 2015 Mar;135(3):762-72.

[Bellas E, Lo TJ, Fournier EP, Brown JE, Abbott RD, Gil ES, Marra KG, Rubin JP, Leisk GG, Kaplan DL.](#) Injectable silk foams for soft tissue regeneration. *Advanced Healthcare Materials*. 2015 Feb 18;4(3):452-9. Epub 2014 Oct 16.

[Krawiec JT, Weinbaum JS, St Croix CM, Phillippi JA, Watkins SC, Rubin JP, Vorp DA.](#) A cautionary tale for autologous vascular tissue engineering: impact of human demographics on the ability of adipose-derived mesenchymal stem cells to recruit and differentiate into smooth muscle cells. *Tissue Engineering Part A*. 2015 Feb;21(3-4):426-37. Epub 2014 Sep 16.

[Rubin JP.](#) Commentary on: Thiamine deficiency: a cause of profound hypotension and hypothermia after plastic surgery. *Aesthetic Surgery Journal*. 2015 Jan;35(1):NP4.

[Tsuji W, Schnider JT, McLaughlin MM, Schweizer R, Zhang W, Solari MG, Rubin JP, Marra KG, Plock JA, Gorantla VS.](#) Effects of immunosuppressive drugs on viability and susceptibility of adipose- and bone marrow-derived mesenchymal stem cells. *Frontiers in Immunology*. 2015 Apr 16;6:131. eCollection 2015.

[Minteer DM, Young MT, Lin YC, Over PJ, Rubin JP, Gerlach JC, Marra KG.](#) Analysis of type II diabetes mellitus adipose-derived stem cells for tissue engineering applications. *Journal of Tissue Engineering*. 2015 Apr 2;6:2041731415579215. eCollection 2015.

[Gusenoff JA, Coon D, Nayar H, Kling RE, Rubin JP.](#) Medial thigh lift in the massive weight loss population: outcomes and complications. *Plastic and Reconstructive Surgery*. 2015 Jan;135(1):98-106.

[Schweizer R, Tsuji W, Gorantla VS, Marra KG, Rubin JP, Plock JA.](#) The role of adipose-derived stem cells in breast cancer progression and metastasis. *Stem Cells International*. 2015;2015:120949. Epub 2015 Apr 27. Review.

[Zammerilla LL, Zou RH, Dong ZM, Winger DG, Rubin JP, Gusenoff JA.](#) Classifying severity of abdominal contour deformities after weight loss to aid in patient counseling: a review of 1006 cases. *Plastic and Reconstructive Surgery*. 2014 Dec;134(6):888e-94e.

[Sheng W, Alhasan AH, DiBernardo G, Almutairi KM, Rubin JP, DiBernardo BE, Almutairi A.](#) Gold Nanoparticle-assisted Selective Photothermolysis of Adipose Tissue (NanoLipo). *Plastic and Reconstructive Surgery. Global Open*. 2015 Jan 8;2(12):e283. eCollection 2014 Dec.

[Gentile NE, Stearns KM, Brown EH, Rubin JP, Boninger ML, Dearth CL, Ambrosio F, Badylak SF.](#) Targeted rehabilitation after extracellular matrix scaffold transplantation for the treatment of volumetric muscle loss. *American Journal of Physical and Medical Rehabilitation*. 2014 Nov;93(11 Suppl 3):S79-87. Review.

[Katzel EB, Nayar HS, Davenport MP, Bossert RP, Rubin JP, Gusenoff JA.](#) The influence of preexisting lower extremity edema and venous stasis disease on body contouring outcomes. *Annals of Plastic Surgery*. 2014 Oct;73(4):365-70.

[Rubin JP.](#) Body contouring. *Clinics in Plastic Surgery*. 2014 Oct;41(4):xi.

[Mitchell RT, Rubin JP.](#) The Fleur-De-Lis abdominoplasty. *Clinics in Plastic Surgery*. 2014 Oct;41(4):673-80. Review.

[Naghshineh N, Rubin JP.](#) Preoperative evaluation of the body contouring patient: the cornerstone of patient safety. *Clinics in Plastic Surgery*. 2014 Oct;41(4):637-43. Review.

[Mitchell R, Rubin JP.](#) Discussion: post-bariatric surgery body contouring treatment in the public health system: cost study and perception by patients. *Plastic and Reconstructive Surgery*. 2014 Sep;134(3):455-6.

[Kelmendi-Doko A, Marra KG, Vidic N, Tan H, Rubin JP.](#) Adipogenic Factor-Loaded Microspheres Increase Retention of Transplanted Adipose Tissue. *Tissue Engineering Part A*. 2014 Sep;20(17-18):2283-90. Epub 2014 Apr 14.

[Liao HT, Marra KG, Rubin JP](#). Application of platelet-rich plasma and platelet-rich fibrin in fat grafting: basic science and literature review. *Tissue Eng Part B. Reviews*. 2014 Aug;20(4):267-76. Epub 2013 Dec 18. Review.

[Tsuji W, Rubin JP, Marra KG](#). Adipose-derived stem cells: Implications in tissue regeneration. *World Journal of Stem Cells*. 2014 Jul 26;6(3):312-21.

Schwartz

[Suway SB, Orellana J, McMorland AJC, Fraser GW, Liu Z, Velliste M, Chase SM, Kass RE, Schwartz AB](#). Temporally Segmented Directionality in the Motor Cortex. *Cerebral Cortex*. 2017 Jun 7:1-14.

[Flesher SN, Collinger JL, Foldes ST, Weiss JM, Downey JE, Tyler-Kabara EC, Bensaia SJ, Schwartz AB, Boninger ML, Gaunt RA](#). Intracortical microstimulation of human somatosensory cortex. *Science Translational Medicine*. 2016 Oct 19;8(361):361ra141. Epub 2016 Oct 13.

[Williams JJ, Tien RN, Inoue Y, Schwartz AB](#). Idle state classification using spiking activity and local field potentials in a brain computer interface. *Conference Proceedings IEEE Engineering in Medicine and Biology Society*. 2016 Aug;2016:1572-1575.

[Schwartz AB](#). Beyond synergies: Comment on "Hand synergies: Integration of robotics and neuroscience for understanding the control of biological and artificial hands" by Marco Santello et al. *Physics of Life Review*. 2016 Jul;17:50-3. Epub 2016 Apr 13.

[Downey JE, Weiss JM, Muelling K, Venkatraman A, Valois JS, Hebert M, Bagnell JA, Schwartz AB, Collinger JL](#). Blending of brain-machine interface and vision-guided autonomous robotics improves neuroprosthetic arm performance during grasping. *Journal of Neuroengineering Rehabilitation*. 2016 Mar 18;13:28.

[Schwartz AB](#). Movement: How the Brain Communicates with the World. *Cell*. 2016 Mar 10;164(6):1122-35. Review.

[Wodlinger B, Downey JE, Tyler-Kabara EC, Schwartz AB, Boninger ML, Collinger JL](#). Ten-dimensional anthropomorphic arm control in a human brain-machine interface: difficulties, solutions, and limitations. *Journal of Neural Engineering*. 2015 Feb;12(1):016011. Epub 2014 Dec 16.

[Perel S, Schwartz AB, Ventura V](#). Automatic scan test for detection of functional connectivity between cortex and muscles. *Journal of Neurophysiology*. 2014 Jul 15;112(2):490-9. Epub 2014 Apr 23.

Sfeir

[Zaky SH, Lee KW, Gao J, Jensen A, Verdelis K, Wang Y, Almarza AJ, Sfeir C](#). Poly (glycerol sebacate) elastomer supports bone regeneration by its mechanical properties being closer to osteoid tissue rather than to mature bone. *Acta Biomaterialia*. 2017 May;54:95-106. Epub 2017 Jan 19.

[Dagher J, Sfeir C, Abdallah A, Majzoub Z](#). Infection Control Measures in Private Dental Clinics in Lebanon. *International Journal of Dentistry*. 2017;2017:5057248. Epub 2017 May 31.

[Francisconi CF, Vieira AE, Bigueti CC, Glowacki AJ, Trombone AP, Letra A, Menezes Silva R, Sfeir CS, Little SR, Garlet GP](#). Characterization of the Protective Role of Regulatory T Cells in Experimental Periapical Lesion Development and Their Chemoattraction Manipulation as a Therapeutic Tool. *Journal of Endodontics*. 2016 Jan;42(1):120-6.

[Anjomshoa I, Briseño-Ruiz J, Deeley K, Poletta FA, Mereb JC, Leite AL, Barreta PA, Silva TL, Dizak P, Ruff T, Patir A, Koruyucu M, Abbasoğlu Z, Casado PL, Brown A, Zaky SH, Bayram M, Kuchler EC, Cooper ME, Liu K, Marazita ML, Tanboğa İ, Granjeiro JM, Seymen F, Castilla EE, Orioli IM, Sfeir C, Owyang H, Buzalaf MA, Vieira AR](#). Aquaporin 5 Interacts with Fluoride and Possibly Protects against Caries. *PLoS One*. 2015 Dec 2;10(12):e0143068.

[Yoshizawa S, Chaya A, Verdelis K, Bilodeau EA, Sfeir C](#). An in vivo model to assess magnesium alloys and their biological effect on human bone marrow stromal cells. *Acta Biomaterialia*. 2015 Dec;28:234-9.

[Costello BJ, Kumta P, Sfeir CS](#). Regenerative Technologies for Craniomaxillofacial Surgery. *Journal of Oral and Maxillofacial Surgery*. 2015 Dec;73(12 Suppl):S116-25. Review.

[Chaya A, Yoshizawa S, Verdelis K, Myers N, Costello BJ, Chou DT, Pal S, Maiti S, Kumta PN, Sfeir C](#). In vivo study of magnesium plate and screw degradation and bone fracture healing. *Acta Biomaterialia*. 2015 May;18:262-9. Epub 2015 Feb 21.

[Glowacki AJ, Gottardi R, Yoshizawa S, Cavalla F, Garlet GP, Sfeir C, Little SR](#). Strategies to direct the enrichment, expansion, and recruitment of regulatory cells for the treatment of disease. *Annals of Biomedical Engineering*. 2015 Mar;43(3):593-602. Epub 2014 Sep 23.

[Araujo-Pires AC, Vieira AE, Francisconi CF, Bigueti CC, Glowacki A, Yoshizawa S, Campanelli AP, Trombone AP, Sfeir CS, Little SR, Garlet GP](#). IL-4/CCL22/CCR4 axis controls regulatory T-cell migration that suppresses inflammatory bone loss in murine experimental periodontitis. *Journal of Bone and Mineral Research*. 2015 Mar;30(3):412-22.

[Chaya A, Yoshizawa S, Verdelis K, Noorani S, Costello BJ, Sfeir C](#). Fracture healing using degradable magnesium fixation plates and screws. *Journal of Oral and Maxillofacial Surgery*. 2015 Feb;73(2):295-305. Epub 2014 Sep 28.

[Brown A, Zaky S, Ray H Jr, Sfeir C](#). Porous magnesium/PLGA composite scaffolds for enhanced bone regeneration following tooth extraction. *Acta Biomaterialia*. 2015 Jan;11:543-53. Epub 2014 Sep 16.

[Quock RL, Al-Sabbagh M, Mason MK, Sfeir CS, Bennett JD](#). The dentist as doctor: a rallying call for the future. *Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology*. 2014 Dec;118(6):637-41. Epub 2014 Aug 1.

[Garlet GP, Sfeir CS, Little SR](#). Restoring host-microbe homeostasis via selective chemoattraction of Tregs. *Journal of Dental Research*. 2014 Sep;93(9):834-9. Epub 2014 Jul 23. Review.

[Yoshizawa S, Brown A, Barchowsky A, Sfeir C](#). Role of magnesium ions on osteogenic response in bone marrow stromal cells. *Connective Tissue Research*. 2014 Aug;55 Suppl 1:155-9.

Shroff

[Gonzalez RS, Adsay V, Graham RP, Shroff SG, Feely MM, Drage MG, Lewin DN, Swanson EA, Yantiss RK, Bađci P, Krasinskas AM](#). Massive gastric juvenile-type polyposis: a clinicopathological analysis of 22 cases. *Histopathology*. 2017 May;70(6):918-928. Epub 2017 Feb 16.

[Ramratnam M, Salama G, Sharma RK, Wang DW, Smith SH, Banerjee SK, Huang XN, Gifford LM, Pruce ML, Gabris BE, Saba S, Shroff SG, Ahmad F](#). Gene-Targeted Mice with the Human Troponin T R141W Mutation Develop Dilated Cardiomyopathy with Calcium Desensitization. *PLoS One*. 2016 Dec 9;11(12):e0167681. eCollection 2016.

[Gau D, Veon W, Zeng X, Yates N, Shroff SG, Koes DR, Roy P](#). Threonine 89 Is an Important Residue of Profilin-1 That Is Phosphorylatable by Protein Kinase A. *PLoS One*. 2016 May 26;11(5):e0156313.

[Henry BL, Gabris B, Li Q, Martin B, Giannini M, Parikh A, Patel D, Haney J, Schwartzman DS, Shroff SG, Salama G](#). Relaxin suppresses atrial fibrillation in aged rats by reversing fibrosis and upregulating Na⁺ channels. *Heart Rhythm*. 2016 Apr;13(4):983-91.

[Schelbert EB, Piehler KM, Zareba KM, Moon JC, Ugander M, Messroghli DR, Valeti US, Chang CC, Shroff SG, Diez J, Miller CA, Schmitt M, Kellman P, Butler J, Gheorghiu M, Wong TC](#). Myocardial Fibrosis Quantified by Extracellular Volume Is Associated With Subsequent Hospitalization for Heart Failure, Death, or Both Across the Spectrum of Ejection Fraction and Heart Failure Stage. *Journal of the American Heart Association*. 2015 Dec 18;4(12). pii: e002613.

[Samant SA, Pillai VB, Sundaresan NR, Shroff SG, Gupta MP](#). Histone Deacetylase 3 (HDAC3)-dependent Reversible Lysine Acetylation of Cardiac Myosin Heavy Chain Isoforms Modulates Their Enzymatic and Motor Activity. *Journal of Biological Chemistry*. 2015 Jun 19;290(25):15559-69. Epub 2015 Apr 24.

Stolz

[Lothet EH, Shaw KM, Lu H, Zhuo J, Wang YT, Gu S, Stolz DB, Jansen ED, Horn CC, Chiel HJ, Jenkins MW](#). Selective inhibition of small-diameter axons using infrared light. *Scientific Reports*. 2017 Jun 12;7(1):3275.

[Xiao X, Jones G, Sevilla WA, Stolz DB, Magee KE, Haughney M, Mukherjee A, Wang Y, Lowe ME](#). A carboxyl ester lipase (CEL) mutant causes chronic pancreatitis by forming intracellular aggregates that activate apoptosis. *Journal of Biological Chemistry*. 2017 May 12;292(19):7744.

[Schmitt DM, Barnes R, Rogerson T, Haught A, Mazzella LK, Ford M, Gilson T, Birch JW, Sjöstedt A, Reed DS, Franks JM, Stolz DB, Denvir J, Fan J, Rekulapally S, Primerano DA, Horzempa J](#). The Role and Mechanism of Erythrocyte Invasion by Francisella tularensis. *Frontiers in Cellular and Infection Microbiology*. 2017 May 9;7:173. eCollection 2017.

[Soltys KA, Setoyama K, Tafaleng EN, Soto Gutiérrez A, Fong J, Fukumitsu K, Nishikawa T, Nagaya M, Sada R, Haberman K, Gramignoli R, Dorko K, Tahan V, Dreyzin A, Baskin K, Crowley JJ, Quader MA, Deutsch M, Ashokkumar C, Shneider BL, Squires RH, Ranganathan S, Reyes-Mugica M, Dobrowolski SF, Mazariegos G, Elango R, Stolz DB, Strom SC, Vockley G, Roy-Chowdhury J, Cascalho M, Guha C, Sindhi R, Platt JL, Fox IJ](#). Host conditioning and rejection monitoring in hepatocyte transplantation in humans. *Journal of Hepatology*. 2017 May;66(5):987-1000. Epub 2016 Dec 24.

[Li G, Larregina AT, Domsic RT, Stolz DB, Medsger TA Jr, Lafyatis R, Fuschiotti P](#). Skin-Resident Effector Memory CD8+CD28- T Cells Exhibit a Profibrotic Phenotype in Patients with Systemic Sclerosis. *Journal of Investigative Dermatology*. 2017 May;137(5):1042-1050. Epub 2016 Dec 22.

[Franks J, Wallace CT, Shibata M, Suga M, Erdman N, Stolz DB, Watkins SC](#). Correlative Fluorescence and Electron Microscopy in 3D-Scanning Electron Microscope Perspective. *Current Protocols in Cytometry*. 2017 Apr 3;80:12.45.1-12.45.15.

[Fu H, Tian Y, Zhou L, Zhou D, Tan RJ, Stolz DB, Liu Y](#). Tenascin-C Is a Major Component of the Fibrogenic Niche in Kidney Fibrosis. *Journal of the American Society of Nephrology*. 2017 Mar;28(3):785-801. Epub 2016 Sep 9.

[Khan Z, Venkat VL, Soltys KA, Stolz DB, Ranganathan S](#). A Challenging Case of Severe Infantile Cholestasis in Alpha-1 Antitrypsin Deficiency. *Pediatric and Developmental Pathology*. 2017 Mar-Apr;20(2):176-181. Epub 2017 Jan 25.

[Khan Z, Yokota S, Ono Y, Bell AW, Oertel M, Stolz DB, Michalopoulos GK](#). Bile Duct Ligation Induces ATZ Globule Clearance in a Mouse Model of α -1 Antitrypsin Deficiency. *Gene Expression*. 2017 Feb 10;17(2):115-127. Epub 2016 Aug 18.

[Uppala R, Dudiak B, Beck ME, Bharathi SS, Zhang Y, Stolz DB, Goetzman ES](#). Aspirin increases mitochondrial fatty acid oxidation. *Biochemical and Biophysical Research Communications*. 2017 Jan 8;482(2):346-351. Epub 2016 Nov 14.

[Zhao J, Fuhrmann-Stroissnigg H, Gurkar AU, Flores RR, Dorronsoro A, Stolz DB, St Croix CM, Niedernhofer LJ, Robbins PD.](#) Quantitative Analysis of Cellular Senescence in Culture and In Vivo. *Current Protocols in Cytometry*. 2017 Jan 5;79:9.51.1-9.51.25.

[Clark AM, Wheeler SE, Young CL, Stockdale L, Shepard Neiman J, Zhao W, Stolz DB, Venkataramanan R, Lauffenburger D, Griffith L, Wells A.](#) A liver microphysiological system of tumor cell dormancy and inflammatory responsiveness is affected by scaffold properties. *Lab on a Chip*. 2016 Dec 20;17(1):156-168.

[Long TJ, Cosgrove PA, Dunn RT 2nd, Stolz DB, Hamadeh H, Afshari C, McBride H, Griffith LG.](#) Modeling Therapeutic Antibody-Small Molecule Drug-Drug Interactions Using a Three-Dimensional Perfusible Human Liver Coculture Platform. *Drug Metabolism and Disposition*. 2016 Dec;44(12):1940-1948. Epub 2016 Sep 12.

[Xiao X, Jones G, Sevilla WA, Stolz DB, Magee KE, Haughney M, Mukherjee A, Wang Y, Lowe ME.](#) A Carboxyl Ester Lipase (CEL) Mutant Causes Chronic Pancreatitis by Forming Intracellular Aggregates That Activate Apoptosis. *Journal of Biological Chemistry*. 2016 Oct 28;291(44):23224-23236. Epub 2016 Sep 20. Erratum in: *Journal of Biological Chemistry*. 2017 May 12;292(19):7744.

[Li HS, Stolz DB, Romero G.](#) Characterization of Endocytic Vesicles Using Magnetic Microbeads Coated with Signaling Ligands. *Traffic*. 2016 Oct;17(10):1150.

[Liu Q, Rojas-Canales DM, Divito SJ, Shufesky WJ, Stolz DB, Erdos G, Sullivan ML, Gibson GA, Watkins SC, Larregina AT, Morelli AE.](#) Donor dendritic cell-derived exosomes promote allograft-targeting immune response. *Journal of Clinical Investigation*. 2016 Aug 1;126(8):2805-20. doi: 10.1172/JCI84577. Epub 2016 Jun 27.

[Corti P, Xue J, Tejero J, Wajih N, Sun M, Stolz DB, Tsang M, Kim-Shapiro DB, Gladwin MT.](#) Globin X is a six-coordinate globin that reduces nitrite to nitric oxide in fish red blood cells. *Proceedings of the National Academy of Sciences USA*. 2016 Jul 26;113(30):8538-43. Epub 2016 Jul 12.

[Wickline ED, Dale IW, Merkel CD, Heier JA, Stolz DB, Kwiatkowski AV.](#) α T-Catenin Is a Constitutive Actin-binding α -Catenin That Directly Couples the Cadherin-Catenin Complex to Actin Filaments. *Journal of Biological Chemistry*. 2016 Jul 22;291(30):15687-99. Epub 2016 May 26.

[Huleihel L, Hussey GS, Naranjo JD, Zhang L, Dziki JL, Turner NJ, Stolz DB, Badylak SF.](#) Matrix-bound nanovesicles within ECM bioscaffolds. *Science Advances*. 2016 Jun 10;2(6):e1600502.

[Kostereva NV, Wang Y, Fletcher DR, Unadkat JV, Schneider JT, Komatsu C, Yang Y, Stolz DB, Davis MR, Plock JA, Gorantla VS.](#) IGF-1 and Chondroitinase ABC Augment Nerve Regeneration after Vascularized Composite Limb Allotransplantation. *PLoS One*. 2016 Jun 7;11(6):e0156149.

[Demetris AJ, Bellamy CO, Gandhi CR, Prost S, Nakanuma Y, Stolz DB.](#) Functional Immune Anatomy of the Liver-As an Allograft. *American Journal of Transplantation*. 2016 Jun;16(6):1653-80. Review.

[Patel A, Xue Y, Mukundan S, Rohan LC, Sant V, Stolz DB, Sant S](#). Cell-Instructive Graphene-Containing Nanocomposites Induce Multinucleated Myotube Formation. *Annals of Biomedical Engineering*. 2016 Jun;44(6):2036-48.

[Cunningham KE, Vincent G, Sodhi CP, Novak EA, Ranganathan S, Egan CE, Stolz DB, Rogers MB, Firek B, Morowitz MJ, Gittes GK, Zuckerbraun BS, Hackam DJ, Mollen KP](#). Peroxisome Proliferator-activated Receptor- γ Coactivator 1- α (PGC1 α) Protects against Experimental Murine Colitis. *Journal of Biological Chemistry*. 2016 May 6;291(19):10184-200.

[Treat AC, Wheeler DS, Stolz DB, Tsang M, Friedman PA, Romero G](#). The PDZ Protein Na⁺/H⁺ Exchanger Regulatory Factor-1 (NHERF1) Regulates Planar Cell Polarity and Motile Cilia Organization. *PLoS One*. 2016 Apr 7;11(4):e0153144.

[Khan Z, Venkat VL, Soltys KA, Stolz DB, Ranganathan S](#). A Challenging Case of Severe Infantile Cholestasis in Alpha-1 Antitrypsin Deficiency. *Pediatric and Developmental Pathology*. 2016 Feb 8.

[Kimura S, Ozaki KS, Ueki S, Zhang M, Yokota S, Stolz DB, Geller DA, Murase N](#). Contribution of alloantigens to hepatic ischemia/reperfusion injury: Roles of natural killer cells and innate immune recognition of nonself. *Liver Transplantation*. 2016 Jan;22(1):80-90.

[Wheeler DS, Underhill SM, Stolz DB, Murdoch GH, Thiels E, Romero G, Amara SG](#). Amphetamine activates Rho GTPase signaling to mediate dopamine transporter internalization and acute behavioral effects of amphetamine. *Proceedings of the National Academy of Sciences USA*. 2015 Dec 22;112(51):E7138-47.

[Dheer R, Patterson J, Dudash M, Stachler EN, Bibby KJ, Stolz DB, Shiva S, Wang Z, Hazen SL, Barchowsky A, Stolz JF](#). Arsenic induces structural and compositional colonic microbiome change and promotes host nitrogen and amino acid metabolism. *Toxicology and Applied Pharmacology*. 2015 Dec 15;289(3):397-408.

[Hidvegi T, Stolz DB, Alcorn JF, Yousem SA, Wang J, Leme AS, Houghton AM, Hale P, Ewing M, Cai H, Garchar EA, Pastore N, Annunziata P, Kaminski N, Pilewski J, Shapiro SD, Pak SC, Silverman GA, Brunetti-Pierri N, Perlmutter DH](#). Enhancing Autophagy with Drugs or Lung-directed Gene Therapy Reverses the Pathological Effects of Respiratory Epithelial Cell Proteinopathy. *Journal of Biological Chemistry*. 2015 Dec 11;290(50):29742-57.

[Zhou L, Pradhan-Sundt T, Poddar M, Singh S, Kikuchi A, Stolz DB, Shou W, Li Z, Nejak-Bowen KN, Monga SP](#). Mice with Hepatic Loss of the Desmosomal Protein γ -Catenin Are Prone to Cholestatic Injury and Chemical Carcinogenesis. *American Journal of Pathology*. 2015 Dec;185(12):3274-89.

[Phinney DG, Di Giuseppe M, Njah J, Sala E, Shiva S, St Croix CM, Stolz DB, Watkins SC, Di YP, Leikauf GD, Kolls J, Riches DW, Deiluiis G, Kaminski N, Boregowda SV, McKenna DH, Ortiz LA](#). Mesenchymal stem cells use extracellular vesicles to outsource mitophagy and shuttle microRNAs. *Nature Communications*. 2015 Oct 7;6:8472.

[Schoiswohl G, Stefanovic-Racic M, Menke MN, Wills RC, Surlow BA, Basantani MK, Sitnick MT, Cai L, Yazbeck CF, Stolz DB, Puliniilkunnil T, O'Doherty RM, Kershaw EE](#). Impact of

Reduced ATGL-Mediated Adipocyte Lipolysis on Obesity-Associated Insulin Resistance and Inflammation in Male Mice. *Endocrinology*. 2015 Oct;156(10):3610-24.

[Harris KG, Morosky SA, Drummond CG, Patel M, Kim C, Stolz DB, Bergelson JM, Cherry S, Coyne CB](#). RIP3 Regulates Autophagy and Promotes Coxsackievirus B3 Infection of Intestinal Epithelial Cells. *Cell Host and Microbe*. 2015 Aug 12;18(2):221-32.

[O-Sullivan I, Zhang W, Wasserman DH, Liew CW, Liu J, Paik J, DePinho RA, Stolz DB, Kahn CR, Schwartz MW, Unterman TG](#). Erratum: FoxO1 integrates direct and indirect effects of insulin on hepatic glucose production and glucose utilization. *Nature Communications*. 2015 Jul 24;6:7861.

[Tafaleng EN, Chakraborty S, Han B, Hale P, Wu W, Soto-Gutierrez A, Feghali-Bostwick CA, Wilson AA, Kotton DN, Nagaya M, Strom SC, Roy-Chowdhury J, Stolz DB, Perlmutter DH, Fox JJ](#). Induced pluripotent stem cells model personalized variations in liver disease resulting from α 1-antitrypsin deficiency. *Hepatology*. 2015 Jul;62(1):147-57.

[Zhao Y, Olonisakin TF, Xiong Z, Hulver M, Sayeed S, Yu MT, Gregory AD, Kochman EJ, Chen BB, Mallampalli RK, Sun M, Silverstein RL, Stolz DB, Shapiro SD, Ray A, Ray P, Lee JS](#). Thrombospondin-1 restrains neutrophil granule serine protease function and regulates the innate immune response during *Klebsiella pneumoniae* infection. *Mucosal Immunology*. 2015 Jul;8(4):896-905.

[Yokota S, Yoshida O, Dou L, Spadaro AV, Isse K, Ross MA, Stolz DB, Kimura S, Du Q, Demetris AJ, Thomson AW, Geller DA](#). IRF-1 promotes liver transplant ischemia/reperfusion injury via hepatocyte IL-15/IL-15R α production. *Journal of Immunology*. 2015 Jun 15;194(12):6045-56. Epub 2015 May 11.

[Stolz DB, Sims-Lucas S](#). Unwrapping the origins and roles of the renal endothelium. *Pediatric Nephrology*. 2015 Jun;30(6):865-72. Epub 2014 Mar 15.

[Reay DP, Bastacky SI, Wack KE, Stolz DB, Robbins PD, Clemens PR](#). D-Amino Acid Substitution of Peptide-Mediated NF- κ B Suppression in mdx Mice Preserves Therapeutic Benefit in Skeletal Muscle, but Causes Kidney Toxicity. *Molecular Medicine*. 2015 May 22;21(1):442-52.

[Geskin LJ, Viragova S, Stolz DB, Fuschiotti P](#). Interleukin-13 is overexpressed in cutaneous T-cell lymphoma cells and regulates their proliferation. *Blood*. 2015 Apr 30;125(18):2798-805. Epub 2015 Jan 27.

[Gandhi CR, Chaillet JR, Nalesnik MA, Kumar S, Dangi A, Demetris AJ, Ferrell R, Wu T, Divanovic S, Stankeiwicz T, Shaffer B, Stolz DB, Harvey SA, Wang J, Starzl TE](#). Liver-specific deletion of augments liver regeneration accelerates development of steatohepatitis and hepatocellular carcinoma in mice. *Gastroenterology*. 2015 Feb;148(2):379-391.e4. Epub 2014 Oct 13.

[Delorme-Axford E, Morosky S, Bomberger J, Stolz DB, Jackson WT, Coyne CB](#). BPIFB3 regulates autophagy and coxsackievirus B replication through a noncanonical pathway independent of the core initiation machinery. *MBio*. 2014 Dec 9;5(6):e02147.

[Zhang L, Franks J, Stolz DB, Conway JF, Thibodeau PH](#). Inducible polymerization and two-dimensional assembly of the repeats-in-toxin (RTX) domain from the *Pseudomonas aeruginosa* alkaline protease. *Biochemistry*. 2014 Oct 21;53(41):6452-62. Epub 2014 Oct 3.

[Long OS, Benson JA, Kwak JH, Luke CJ, Gosai SJ, O'Reilly LP, Wang Y, Li J, Vetica AC, Miedel MT, Stolz DB, Watkins SC, Züchner S, Perlmutter DH, Silverman GA, Pak SC](#). A *C. elegans* model of human α 1-antitrypsin deficiency links components of the RNAi pathway to misfolded protein turnover. *Human Molecular Genetics*. 2014 Oct 1;23(19):5109-22. Epub 2014 May 16.

[Griffith LG, Wells A, Stolz DB](#). Engineering liver. *Hepatology*. 2014 Oct;60(4):1426-34. Epub 2014 Mar 26.

[Clark AM, Wheeler SE, Taylor DP, Pillai VC, Young CL, Prantil-Baun R, Nguyen T, Stolz DB, Borenstein JT, Lauffenburger DA, Venkataramanan R, Griffith LG, Wells A](#). A microphysiological system model of therapy for liver micrometastases. *Experimental Biology and Medicine* (Maywood). 2014 Sep;239(9):1170-9. Epub 2014 May 12. Review.

[Muller L, Hong CS, Stolz DB, Watkins SC, Whiteside TL](#). Isolation of biologically-active exosomes from human plasma. *Journal of Immunological Methods*. 2014 Sep;411:55-65. Epub 2014 Jun 18.

[Tanaka Y, Shigemura N, Noda K, Kawamura T, Isse K, Stolz DB, Bermudez CA](#). Optimal lung inflation techniques in a rat lung transplantation model: a revisit. *Thoracic and Cardiovascular Surgery*. 2014 Aug;62(5):427-33. Epub 2014 May 1.

[Marrone AK, Stolz DB, Bastacky SI, Kostka D, Bodnar AJ, Ho J](#). MicroRNA-17~92 is required for nephrogenesis and renal function. *Journal of the American Society of Nephrology*. 2014 Jul;25(7):1440-52. Epub 2014 Feb 7.

Tillman

[Chen Y, Tillman BW, Cho SK, Richards TD, Tevar AD, Gu X, Wagner WR, Chun Y](#). A novel compartmentalised stent graft to isolate the perfusion of the abdominal organs. *Journal of Medical Engineering and Technology*. 2017 Feb;41(2):141-150. Epub 2016 Oct 7.

[Shridhar P, Chen Y, Khalil R, Plakseychuk A, Cho SK, Tillman B, Kumta PN, Chun Y](#). A Review of PMMA Bone Cement and Intra-Cardiac Embolism. *Materials* (Basel). 2016 Oct 6;9(10). pii: E821. Review.

[Tillman BW](#). Invited commentary. *Journal of Vascular Surgery*. 2016 Oct;64(4):1099-100.

[Tillman BW, Kelly J, Richards TD, Chen AF, Donnenberg AD, Donnenberg VS, Tzeng E](#). A depleting antibody toward sca-1 mitigates a surge of CD34(+)/c-kit(+) progenitors and reduces vascular restenosis in a murine vascular injury model. *Journal of Vascular Surgery*. 2016 Oct;64(4):1084-92.

[Tillman BW, Chun Y, Cho SK, Chen Y, Liang N, Maul T, Demetris A, Gu X, Wagner WR, Tevar AD.](#) Dual chamber stent prevents organ malperfusion in a model of donation after cardiac death. *Surgery*. 2016 Oct;160(4):892-901. Epub 2016 Aug 11.

[Ding X, Dutta D, Mahmoud AM, Tillman B, Leers SA, Kim K.](#) An adaptive displacement estimation algorithm for improved reconstruction of thermal strain. *IEEE Transactions on Ultrasonics, Ferroelectrics and Frequency Control*. 2015 Jan;62(1):138-51.

Tuan

[Rothrauff BB, Yang G, Tuan RS.](#) Tissue-specific bioactivity of soluble tendon-derived and cartilage-derived extracellular matrices on adult mesenchymal stem cells. *Stem Cell Research and Therapy*. 2017 Jun 5;8(1):133.

[Stearns-Reider KM, D'Amore A, Beezhold K, Rothrauff B, Cavalli L, Wagner WR, Vorp DA, Tsamis A, Shinde S, Zhang C, Barchowsky A, Rando TA, Tuan RS, Ambrosio F.](#) Aging of the skeletal muscle extracellular matrix drives a stem cell fibrogenic conversion. *Aging Cell*. 2017 Jun;16(3):518-528. Epub 2017 Mar 30.

[Tuan RS.](#) Birth Defects: Etiology, screening, and detection. *Birth Defects Research*. 2017 Jun 1;109(10):723-724.

[Blair HC, Larrouture QC, Li Y, Lin H, Beer-Stoltz D, Liu L, Tuan RS, Robinson LJ, Schlesinger PH, Nelson DJ.](#) Osteoblast Differentiation and Bone Matrix Formation In Vivo and In Vitro. *Tissue Engineering Part B, Reviews*. 2017 Jun;23(3):268-280. doi: 10.1089/ten.TEB.2016.0454. Epub 2016 Dec 27.

[Rothrauff BB, Coluccino L, Gottardi R, Ceseracciu L, Scaglione S, Goldoni L, Tuan RS.](#) Efficacy of thermoresponsive, photocrosslinkable hydrogels derived from decellularized tendon and cartilage extracellular matrix for cartilage tissue engineering. *Journal of Tissue Engineering and Regenerative Medicine*. 2017 May 9. [Epub ahead of print]

[Rothrauff BB, Lauro BB, Yang G, Debski RE, Musahl V, Tuan RS.](#) Braided and Stacked Electrospun Nanofibrous Scaffolds for Tendon and Ligament Tissue Engineering. *Tissue Engineering Part A*. 2017 May;23(9-10):378-389. Epub 2017 Feb 10.

[Shimomura K, Rothrauff BB, Tuan RS.](#) Region-Specific Effect of the Decellularized Meniscus Extracellular Matrix on Mesenchymal Stem Cell-Based Meniscus Tissue Engineering. *American Journal of Sports Medicine*. 2017 Mar;45(3):604-611. Epub 2016 Dec 13.

[Lozito TP, Tuan RS.](#) Lizard tail regeneration as an instructive model of enhanced healing capabilities in an adult amniote. *Connective Tissue Research*. 2017 Mar;58(2):145-154. Epub 2016 Jul 26. Review.

[Rothrauff BB, Shimomura K, Gottardi R, Alexander PG, Tuan RS.](#) Anatomical region-dependent enhancement of 3-dimensional chondrogenic differentiation of human mesenchymal stem cells by soluble meniscus extracellular matrix. *Acta Biomaterialia*. 2017 Feb;49:140-151. Epub 2016 Nov 19.

[Yang G, Rothrauff BB, Lin H, Yu S, Tuan RS](#). Tendon-Derived Extracellular Matrix Enhances Transforming Growth Factor- β 3-Induced Tenogenic Differentiation of Human Adipose-Derived Stem Cells. *Tissue Engineering Part A*. 2017 Feb;23(3-4):166-176. Epub 2017 Jan 10.

[Daston GP, Tuan RS, Vekemans M](#). A unified birth defects research. *Birth Defects Research*. 2017 Jan 20;109(1):7.

[Supanc HR, Gorman S, Tuan RS](#). Traumatized muscle-derived multipotent progenitor cells recruit endothelial cells through vascular endothelial growth factor-A action. *Journal of Tissue Engineering and Regenerative Medicine*. 2017 Jan 12. [Epub ahead of print]

[Numpaisal PO, Rothrauff BB, Gottardi R, Chien CL, Tuan RS](#). Rapidly dissociated autologous meniscus tissue enhances meniscus healing: An in vitro study. *Connective Tissue Research*. 2017 May - Jul;58(3-4):355-365. Epub 2016 Oct 11.

[He J, Jiang Y, Alexander PG, Ulici V, Zhu Y, Wu S, Tuan RS](#). Infrapatellar fat pad aggravates degeneration of acute traumatized cartilage: a possible role for interleukin-6. *Osteoarthritis and Cartilage*. 2017 Jan;25(1):138-145. Epub 2016 Sep 9.

[Rothrauff BB, Numpaisal PO, Lauro BB, Alexander PG, Debski RE, Musahl V, Tuan RS](#). Augmented repair of radial meniscus tear with biomimetic electrospun scaffold: an in vitro mechanical analysis. *Journal of Experimental Orthopaedics*. 2016 Dec;3(1):23. Epub 2016 Sep 13.

[Iannetti L, D'Urso G, Conoscenti G, Cutrì E, Tuan RS, Raimondi MT, Gottardi R, Zunino P](#). Distributed and Lumped Parameter Models for the Characterization of High Throughput Bioreactors. *PLoS One*. 2016 Sep 26;11(9):e0162774. eCollection 2016.

[Hofer HR, Tuan RS](#). Secreted trophic factors of mesenchymal stem cells support neurovascular and musculoskeletal therapies. *Stem Cell Research and Therapy*. 2016 Sep 9;7(1):131. Review.

[Alexander PG, Clark KL, Tuan RS](#). Prenatal exposure to environmental factors and congenital limb defects. *Birth Defects Research Part C, Embryo Today*. 2016 Sep;108(3):243-273. Epub 2016 Oct 21. Review.

[Lozito TP, Tuan RS](#). Lizard tail skeletal regeneration combines aspects of fracture healing and blastema-based regeneration. *Development*. 2016 Aug 15;143(16):2946-57. Epub 2016 Jul 7.

[Pohl PH, Lozito TP, Cuperman T, Yurube T, Moon HJ, Ngo K, Tuan RS, St Croix C, Sowa GA, Rodrigues LM, Kang JD, Vo NV](#). Catabolic effects of endothelial cell-derived microparticles on disc cells: Implications in intervertebral disc neovascularization and degeneration. *Journal of Orthopaedic Research*. 2016 Aug;34(8):1466-74. Epub 2016 Jun 14.

[Urish KL, DeMuth PW, Kwan BW, Craft DW, Ma D, Haider H, Tuan RS, Wood TK, Davis CM 3rd](#). Antibiotic-tolerant *Staphylococcus aureus* Biofilm Persists on Arthroplasty Materials. *Clinical Orthopaedics and Related Research*. 2016 Jul;474(7):1649-56.

[Tuan RS](#). Prenatal substance use and developmental disorders: Overview and highlights. *Birth Defects Research. Part C, Embryo Today*. 2016 Jun;108(2):106-7.

[Jiang Y, Cai Y, Zhang W, Yin Z, Hu C, Tong T, Lu P, Zhang S, Neculai D, Tuan RS, Ouyang HW](#). Human Cartilage-Derived Progenitor Cells From Committed Chondrocytes for Efficient Cartilage Repair and Regeneration. *Stem Cells and Translational Medicine*. 2016 Jun;5(6):733-44.

[Yang G, Lin H, Rothrauff BB, Yu S, Tuan RS](#). Multilayered polycaprolactone/gelatin fiber-hydrogel composite for tendon tissue engineering. *Acta Biomaterialia*. 2016 Apr 15;35:68-76.

[Gelberman RH, Shen H, Kormpakis I, Rothrauff B, Yang G, Tuan RS, Xia Y, Sakiyama-Elbert S, Silva MJ, Thomopoulos S](#). Effect of adipose-derived stromal cells and BMP12 on intrasynovial tendon repair: A biomechanical, biochemical, and proteomics study. *Journal of Orthopaedic Research*. 2016 Apr;34(4):630-40.

[Sohn J, Brick RM, Tuan RS](#). From embryonic development to human diseases: The functional role of caveolae/caveolin. *Birth Defects Research. Part C, Embryo Today*. 2016 Mar;108(1):45-64. Review.

[Howard M, Tuan RS, Wallis GA](#). The function and interrelationship between GDF5 and ERG-010 during chondrogenesis in vitro. *In Vitro Cellular and Developmental Biology. Animal*. 2016 Feb;52(2):182-92.

[Langhans MT, Yu S, Tuan RS](#). Stem Cells in Skeletal Tissue Engineering: Technologies and Models. *Current Stem Cell Research and Therapy*. 2016;11(6):453-474. Review.

[Kolf CM, Song L, Helm J, Tuan RS](#). Nascent osteoblast matrix inhibits osteogenesis of human mesenchymal stem cells in vitro. *Stem Cell Research and Therapy*. 2015 Dec 22;6:258.

[Tuan RS, O'Brien T](#). Expression of Concern: Human amniotic epithelial cells can differentiate into granulosa cells and restore folliculogenesis in a mouse model of chemotherapy-induced premature ovarian failure. *Stem Cell Research and Therapy*. 2015 Dec 8;6:240.

[Meropol SB, Watanabe M, Tuan RS](#). Introduction. *Birth Defects Research. Part C, Embryo Today*. 2015 Dec;105(4):227.

[Baker N, Sohn J, Tuan RS](#). Promotion of human mesenchymal stem cell osteogenesis by PI3-kinase/Akt signaling, and the influence of caveolin-1/cholesterol homeostasis. *Stem Cell Research and Therapy*. 2015 Dec 1;6:238.

[Jiang Y, Hu C, Yu S, Yan J, Peng H, Ouyang HW, Tuan RS](#). Cartilage stem/progenitor cells are activated in osteoarthritis via interleukin-1 β /nerve growth factor signaling. *Arthritis Research and Therapy*. 2015 Nov 17;17:327.

[Bonnevie ED, Delco ML, Fortier LA, Alexander PG, Tuan RS, Bonassar LJ](#). Characterization of Tissue Response to Impact Loads Delivered Using a Hand-Held Instrument for Studying Articular Cartilage Injury. *Cartilage*. 2015 Oct;6(4):226-32.

[Sun AX, Lin H, Beck AM, Kilroy EJ, Tuan RS](#). Projection Stereolithographic Fabrication of Human Adipose Stem Cell-Incorporated Biodegradable Scaffolds for Cartilage Tissue Engineering. *Frontiers in Bioengineering and Biotechnology*. 2015 Aug 18;3:115.

[Shimomura K, Bean AC, Lin H, Nakamura N, Tuan RS](#). In Vitro Repair of Meniscal Radial Tear Using Aligned Electrospun Nanofibrous Scaffold. *Tissue Engineering Part A*. 2015 Jul;21(13-14):2066-75.

[Xie X, Ulici V, Alexander PG, Jiang Y, Zhang C, Tuan RS](#). Platelet-Rich Plasma Inhibits Mechanically Induced Injury in Chondrocytes. *Arthroscopy*. 2015 Jun;31(6):1142-50. Epub 2015 Mar 11.

[Choe H, Deirmengian CA, Hickok NJ, Morrison TN, Tuan RS](#). Molecular diagnostics. *Journal of the American Academy of Orthopaedic Surgeons*. 2015 Apr;23 Suppl:S26-31.

[Jiang Y, Tuan RS](#). Origin and function of cartilage stem/progenitor cells in osteoarthritis. *Nature Reviews. Rheumatology*. 2015 Apr;11(4):206-12. Epub 2014 Dec 23. Review.

[Lozito TP, Tuan RS](#). Lizard tail regeneration: regulation of two distinct cartilage regions by Indian hedgehog. *Developmental Biology*. 2015 Mar 15;399(2):249-62. Epub 2015 Jan 14.

[Bean AC, Tuan RS](#). Fiber diameter and seeding density influence chondrogenic differentiation of mesenchymal stem cells seeded on electrospun poly(ϵ -caprolactone) scaffolds. *Biomedical Materials*. 2015 Jan 29;10(1):015018.

[Baker N, Boyette LB, Tuan RS](#). Characterization of bone marrow-derived mesenchymal stem cells in aging. *Bone*. 2015 Jan;70:37-47. Epub 2014 Oct 28. Review.

[Sun AX, Lin H, Beck AM, Kilroy EJ, Tuan RS](#). Projection Stereolithographic Fabrication of Human Adipose Stem Cell-Incorporated Biodegradable Scaffolds for Cartilage Tissue Engineering. *Frontiers in Bioengineering and Biotechnology*. 2015 Aug 18;3:115. eCollection 2015.

[Lozito TP, Tuan RS](#). Endothelial and cancer cells interact with mesenchymal stem cells via both microparticles and secreted factors. *Journal of Cellular and Molecular Medicine*. 2014 Dec;18(12):2372-84. Epub 2014 Sep 23.

[Alexander PG, Gottardi R, Lin H, Lozito TP, Tuan RS](#). Three-dimensional osteogenic and chondrogenic systems to model osteochondral physiology and degenerative joint diseases. *Experimental Biology and Medicine (Maywood)*. 2014 Sep;239(9):1080-95. Epub 2014 Jul 3. Review.

[Lin H, Cheng AW, Alexander PG, Beck AM, Tuan RS](#). Cartilage Tissue Engineering Application of Injectable Gelatin Hydrogel with In Situ Visible-Light-Activated Gelation Capability in both Air and Aqueous Solution. *Tissue Engineering Part A*. 2014 Sep;20(17-18):2402-11. Epub 2014 Apr 9.

[Gao X, Usas A, Tang Y, Lu A, Tan J, Schnependahl J, Kozemchak AM, Wang B, Cummins JH, Tuan RS, Huard J](#). A comparison of bone regeneration with human mesenchymal stem cells and muscle-derived stem cells and the critical role of BMP. *Biomaterials*. 2014 Aug;35(25):6859-70. Epub 2014 May 21.

[Diederichs S, Tuan RS](#). Functional comparison of human-induced pluripotent stem cell-derived mesenchymal cells and bone marrow-derived mesenchymal stromal cells from the same donor. *Stem Cells and Development*. 2014 Jul 15;23(14):1594-610. Epub 2014 Apr 28.

[Lin H, Lozito TP, Alexander PG, Gottardi R, Tuan RS](#). Stem cell-based microphysiological osteochondral system to model tissue response to interleukin-1 β . *Molecular Pharmaceutics*. 2014 Jul 7;11(7):2203-12. Epub 2014 Jun 2.

Tyler-Kabara

[McDowell MM, Dede O, Bosch P, Tyler-Kabara EC](#). Absent pedicles in campomelic dysplasia. *Child's Nervous System*. 2017 Jun;33(6):987-992. Epub 2017 Apr 26.

[Hiremath SV, Tyler-Kabara EC, Wheeler JJ, Moran DW, Gaunt RA, Collinger JL, Foldes ST, Weber DJ, Chen W, Boninger ML, Wang W](#). Human perception of electrical stimulation on the surface of somatosensory cortex. *PLoS One*. 2017 May 10;12(5):e0176020. eCollection 2017.

[Antonucci MC, Zuckerbraun NS, Tyler-Kabara EC, Furtado AD, Murphy ME, Marin JR](#). The Burden of Ionizing Radiation Studies in Children with Ventricular Shunts. *Journal of Pediatrics*. 2017 Mar;182:210-216.e1. Epub 2016 Dec 15.

[Stapleton AL, Tyler-Kabara EC, Gardner PA, Snyderman CH, Wang EW](#). Risk factors for cerebrospinal fluid leak in pediatric patients undergoing endoscopic endonasal skull base surgery. *International Journal of Pediatric Otorhinolaryngology*. 2017 Feb;93:163-166. Epub 2016 Dec 26.

[Kryger M, Wester B, Pohlmeier EA, Rich M, John B, Beaty J, McLoughlin M, Boninger M, Tyler-Kabara EC](#). Flight simulation using a Brain-Computer Interface: A pilot, pilot study. *Experimental Neurology*. 2017 Jan;287(Pt 4):473-478. Epub 2016 May 16.

[Flesher SN, Collinger JL, Foldes ST, Weiss JM, Downey JE, Tyler-Kabara EC, Bensmaia SJ, Schwartz AB, Boninger ML, Gaunt RA](#). Intracortical microstimulation of human somatosensory cortex. *Science Translational Medicine*. 2016 Oct 19;8(361):361ra141. Epub 2016 Oct 13.

[Degenhart AD, Eles J, Dum R, Mischel JL, Smalianchuk I, Endler B, Ashmore RC, Tyler-Kabara EC, Hatsopoulos NG, Wang W, Batista AP, Cui XT](#). Histological evaluation of a chronically-implanted electrocorticographic electrode grid in a non-human primate. *Journal of Neural Engineering*. 2016 Aug;13(4):046019. Epub 2016 Jun 28.

[Berger RP, Fromkin J, Herman B, Pierce MC, Saladino RA, Flom L, Tyler-Kabara EC, McGinn T, Richichi R, Kochanek PM](#). Validation of the Pittsburgh Infant Brain Injury Score for Abusive Head Trauma. *Pediatrics*. 2016 Jul;138(1). pii: e20153756. Epub 2016 Jun 23.

[Miller Ferguson N, Shein SL, Kochanek PM, Luther J, Wisniewski SR, Clark RS, Tyler-Kabara EC, Adelson PD, Bell MJ](#). Intracranial Hypertension and Cerebral Hypoperfusion in Children With Severe Traumatic Brain Injury: Thresholds and Burden in Accidental and Abusive Insults. *Pediatric Critical Care Medicine*. 2016 May;17(5):444-50.

[Foster KA, Deibert CP, Choi PA, Gardner PA, Tyler-Kabara EC, Engh JA](#). Endoscopic third ventriculostomy as adjunctive therapy in the treatment of low-pressure hydrocephalus in adults. *Surgical Neurology International*. 2016 Mar 10;7:26.

[Shein SL, Ferguson NM, Kochanek PM, Bayir H, Clark RS, Fink EL, Tyler-Kabara EC, Wisniewski SR, Tian Y, Balasubramani GK, Bell MJ](#). Effectiveness of Pharmacological Therapies for Intracranial Hypertension in Children With Severe Traumatic Brain Injury--Results From an Automated Data Collection System Time-Synched to Drug Administration. *Pediatric Critical Care Medicine*. 2016 Mar;17(3):236-45.

[Elangovan C, Singh SP, Gardner P, Snyderman C, Tyler-Kabara EC, Habeych M, Crammond D, Balzer J, Thirumala PD](#). Intraoperative neurophysiological monitoring during endoscopic endonasal surgery for pediatric skull base tumors. *Journal of Neurosurgery, Pediatrics*. 2015 Oct 30:1-9.

[Newman WC, Tempel ZJ, Tyler-Kabara EC](#). Posttraumatic Cervical Nerve Root Avulsion with Epidural Hematoma. *World Neurosurgery*. 2015 Oct;84(4):1177.e9-11.

[Perel S, Sadtler PT, Oby ER, Ryu SI, Tyler-Kabara EC, Batista AP, Chase SM](#). Single-unit activity, threshold crossings, and local field potentials in motor cortex differentially encode reach kinematics. *Journal of Neurophysiology*. 2015 Sep;114(3):1500-12.

[Stapleton AL, Tyler-Kabara EC, Gardner PA, Snyderman CH](#). Endoscopic endonasal surgery for benign fibro-osseous lesions of the pediatric skull base. *Laryngoscope*. 2015 Sep;125(9):2199-203.

[Lakshmanan KC, Sadtler PT, Tyler-Kabara EC, Batista AP, Yu BM](#). Extracting Low-Dimensional Latent Structure from Time Series in the Presence of Delays. *Neural Computation*. 2015 Sep;27(9):1825-56.

[Hiremath SV, Chen W, Wang W, Foldes S, Yang Y, Tyler-Kabara EC, Collinger JL, Boninger ML](#). Brain computer interface learning for systems based on electrocorticography and intracortical microelectrode arrays. *Frontiers in Integrative Neuroscience*. 2015 Jun 10;9:40.

[Sadtler PT, Ryu SI, Tyler-Kabara EC, Yu BM, Batista AP](#). Brain-computer interface control along instructed paths. *Journal of Neural Engineering*. 2015 Feb;12(1):016015. Epub 2015 Jan 21.

[Wodlinger B, Downey JE, Tyler-Kabara EC, Schwartz AB, Boninger ML, Collinger JL](#). Ten-dimensional anthropomorphic arm control in a human brain-machine interface: difficulties, solutions, and limitations. *Journal of Neural Engineering*. 2015 Feb;12(1):016011. Epub 2014 Dec 16.

[Stapleton AL, Tyler-Kabara EC, Gardner PA, Snyderman CH](#). The costs of skull base surgery in the pediatric population. *Journal of Neurological Surgery, Part B, Skull Base*. 2015 Feb;76(1):39-42. Epub 2014 Sep 13.

[Hiremath SV, Chen W, Wang W, Foldes S, Yang Y, Tyler-Kabara EC, Collinger JL, Boninger ML](#). Brain computer interface learning for systems based on electrocorticography and intracortical microelectrode arrays. *Frontiers in Integrative Neuroscience*. 2015 Jun 10;9:40. eCollection 2015. Review.

[Bonfield CM, Grandhi R, Jankowitz BT, Tyler-Kabara EC](#). Traumatic intracranial aneurysm after penetrating brain trauma. *BMJ Case Reports*. 2014 Nov 14;2014. pii: bcr2014206130.

[Foster KA, Recker MJ, Lee PS, Bell MJ, Tyler-Kabara EC](#). Factors Associated with Hemispheric Hypodensity after Subdural Hematoma following Abusive Head Trauma in Children. *Journal of Neurotrauma*. 2014 Oct 1;31(19):1625-31. Epub 2014 Jun 12.

[Sadler PT, Quick KM, Golub MD, Chase SM, Ryu SI, Tyler-Kabara EC, Yu BM, Batista AP](#). Neural constraints on learning. *Nature*. 2014 Aug 28;512(7515):423-6.

Vodovotz

[Moore FA, Moore EE, Billiar TR, Vodovotz Y, Banerjee A, Moldawer LL](#). The Role of NIGMS P50 Sponsored Team Science in Our Understanding of Multiple Organ Failure. *Journal of Trauma and Acute Care Surgery*. 2017 May 22. [Epub ahead of print]

[Vodovotz Y, Xia A, Read EL, Bassaganya-Riera J, Hafler DA, Sontag E, Wang J, Tsang JS, Day JD, Kleinstein SH, Butte AJ, Altman MC, Hammond R, Sealfon SC](#). Solving Immunology? *Trends in Immunology*. 2017 Feb;38(2):116-127. Epub 2016 Dec 13. Review.

[Krishnan S, Vodovotz Y, Karg PE, Constantine G, Sowa GA, Constantine FJ, Brienza DM](#). Inflammatory Mediators Associated With Pressure Ulcer Development in Individuals With Pneumonia After Traumatic Spinal Cord Injury: A Pilot Study. *Archives of Physical Medicine and Rehabilitation*. 2017 Jan 25. pii: S0003-9993(17)30028-X. [Epub ahead of print]

[Abdul-Malak O, Vodovotz Y, Zaaqoq A, Guardado J, Almahmoud K, Yin J, Zuckerbraun B, Peitzman AB, Sperry J, Billiar TR, Namas RA](#). Elevated Admission Base Deficit Is Associated with a Complex Dynamic Network of Systemic Inflammation Which Drives Clinical Trajectories in Blunt Trauma Patients. *Mediators of Inflammation*. 2016;2016:7950374. Epub 2016 Nov 15.

[Namas RA, Vodovotz Y](#). From static to dynamic: a sepsis-specific dynamic model from clinical criteria in polytrauma patients. *Annals of Translational Medicine*. 2016 Dec;4(24):492.

[Namas RA, Almahmoud K, Mi Q, Ghuma A, Namas R, Zaaqoq A, Zhu X, Abdul-Malak O, Sperry J, Zamora R, Billiar TR, Vodovotz Y](#). Individual-specific principal component analysis of circulating inflammatory mediators predicts early organ dysfunction in trauma patients. *Journal of Critical Care*. 2016 Dec;36:146-153. Epub 2016 Jul 11.

[Zamora R, Vodovotz Y, Mi Q, Barclay D, Yin J, Horslen S, Rudnick D, Loomes KM, Squires RH](#). Data-Driven Modeling for Precision Medicine in Pediatric Acute Liver Failure. *Molecular Medicine*. 2016 Nov 23;22. [Epub ahead of print]

[Sadowsky D, Zamora R, Barclay D, Yin J, Fontes P, Vodovotz Y](#). Machine Perfusion of Porcine Livers with Oxygen-Carrying Solution Results in Reprogramming of Dynamic Inflammation Networks. *Frontiers in Pharmacology*. 2016 Nov 4;7:413. eCollection 2016.

[Abboud A, Namas RA, Ramadan M, Mi Q, Almahmoud K, Abdul-Malak O, Azhar N, Zaaqoq A, Namas R, Barclay DA, Yin J, Sperry J, Peitzman A, Zamora R, Simmons RL, Billiar TR, Vodovotz Y](#). Computational Analysis Supports an Early, Type 17 Cell-Associated Divergence of Blunt Trauma Survival and Mortality. *Critical Care Medicine*. 2016 Nov;44(11):e1074-e1081.

[Constantine G, Buliga M, Mi Q, Constantine F, Abboud A, Zamora R, Puccio A, Okonkwo D, Vodovotz Y](#). Dynamic Profiling: Modeling the Dynamics of Inflammation and Predicting Outcomes in Traumatic Brain Injury Patients. *Frontiers in Pharmacology*. 2016 Nov 1;7:383. eCollection 2016.

[Krishnan S, Karg PE, Boninger ML, Vodovotz Y, Constantine G, Sowa GA, Brienza DM](#). Early Detection of Pressure Ulcer Development Following Traumatic Spinal Cord Injury Using Inflammatory Mediators. *Archives of Physical Medicine and Rehabilitation*. 2016 Oct;97(10):1656-62. Epub 2016 Jan 25.

[Abboud A, Mi Q, Puccio A, Okonkwo D, Buliga M, Constantine G, Vodovotz Y](#). Inflammation Following Traumatic Brain Injury in Humans: Insights from Data-Driven and Mechanistic Models into Survival and Death. *Frontiers in Pharmacology*. 2016 Sep 27;7:342. eCollection 2016.

[Kassab GS, An G, Sander EA, Miga MI, Guccione JM, Ji S, Vodovotz Y](#). Augmenting Surgery via Multi-scale Modeling and Translational Systems Biology in the Era of Precision Medicine: A Multidisciplinary Perspective. *Annals of Biomedical Engineering*. 2016 Sep;44(9):2611-25. Epub 2016 Mar 25. Review.

[Buchman TG, Billiar TR, Elster E, Kirk AD, Rimawi RH, Vodovotz Y, Zehnbauser BA](#). Precision Medicine for Critical Illness and Injury. *Critical Care Medicine*. 2016 Sep;44(9):1635-8.

[Namas RA, Vodovotz Y, Almahmoud K, Abdul-Malak O, Zaaqoq A, Namas R, Mi Q, Barclay D, Zuckerbraun B, Peitzman AB, Sperry J, Billiar TR](#). Temporal Patterns of Circulating Inflammation Biomarker Networks Differentiate Susceptibility to Nosocomial Infection Following Blunt Trauma in Humans. *Annals of Surgery*. 2016 Jan;263(1):191-8.

[Namas RA, Mi Q, Namas R, Almahmoud K, Zaaqoq AM, Abdul-Malak O, Azhar N, Day J, Abboud A, Zamora R, Billiar TR, Vodovotz Y](#). Insights into the Role of Chemokines, Damage-Associated Molecular Patterns, and Lymphocyte-Derived Mediators from Computational Models of Trauma-Induced Inflammation. *Antioxidants and Redox Signaling*. 2015 Dec 10;23(17):1370-87.

[Starzl R, Wolfram D, Zamora R, Jefferson B, Barclay D, Ho C, Gorantla V, Brandacher G, Schneeberger S, Andrew Lee WP, Carbonell J, Vodovotz Y](#). Cardiac Arrest Disrupts Caspase-1 and Patterns of Inflammatory Mediators Differently in Skin and Muscle Following Localized Tissue Injury in Rats: Insights from Data-Driven Modeling. *Frontiers in Immunology*. 2015 Nov 20;6:587.

[Day JD, Metes DM, Vodovotz Y](#). Mathematical Modeling of Early Cellular Innate and Adaptive Immune Responses to Ischemia/Reperfusion Injury and Solid Organ Allograft Transplantation. *Frontiers in Immunology*. 2015 Sep 25;6:484.

[Almahmoud K, Namas RA, Abdul-Malak O, Zaaqoq AM, Zamora R, Zuckerbraun BS, Sperry J, Peitzman AB, Billiar TR, Vodovotz Y](#). Impact of Injury Severity on Dynamic Inflammation Networks Following Blunt Trauma. *Shock*. 2015 Aug;44(2):101-9.

[Almahmoud K, Namas RA, Zaaqoq AM, Abdul-Malak O, Namas R, Zamora R, Sperry J, Billiar TR, Vodovotz Y](#). Prehospital Hypotension Is Associated With Altered Inflammation Dynamics and Worse Outcomes Following Blunt Trauma in Humans. *Critical Care Medicine*. 2015 Jul;43(7):1395-404.

[Vasudeva K, Vodovotz Y, Azhar N, Barclay D, Janjic JM, Pollock JA](#). In vivo and systems biology studies implicate IL-18 as a central mediator in chronic pain. *Journal of Neuroimmunology*. 2015 Jun 15;283:43-9. Epub 2015 Apr 28.

[Zirald C, Solovyev A, Allegretti A, Krishnan S, Henzel MK, Sowa GA, Brienza D, An G, Mi Q, Vodovotz Y](#). A Computational, Tissue-Realistic Model of Pressure Ulcer Formation in Individuals with Spinal Cord Injury. *PLoS Computational Biology*. 2015 Jun 25;11(6):e1004309. eCollection 2015 Jun.

[Buchholz BM, Shapiro RA, Vodovotz Y, Billiar TR, Sodhi CP, Hackam DJ, Bauer AJ](#). Myocyte TLR4 enhances enteric and systemic inflammation driving late murine endotoxic ileus. *American Journal of Physiology. Gastrointestinal and Liver Physiology*. 2015 May 15;308(10):G852-62. Epub 2015 Mar 6.

[Brown D, Namas RA, Almahmoud K, Zaaqoq A, Sarkar J, Barclay DA, Yin J, Ghuma A, Abboud A, Constantine G, Nieman G, Zamora R, Chang SC, Billiar TR, Vodovotz Y](#). Trauma in silico: Individual-specific mathematical models and virtual clinical populations. *Science and Translational Medicine*. 2015 Apr 29;7(285):285ra61.

[Nishikawa T, Bell A, Brooks JM, Setoyama K, Melis M, Han B, Fukumitsu K, Handa K, Tian J, Kaestner KH, Vodovotz Y, Locker J, Soto-Gutierrez A, Fox JJ](#). Resetting the transcription factor network reverses terminal chronic hepatic failure. *Journal of Clinical Investigations*. 2015 Apr;125(4):1533-44. Epub 2015 Mar 16.

[Zolin SJ, Vodovotz Y, Forsythe RM, Rosengart MR, Namas R, Brown JB, Peitzman AP, Billiar TR, Sperry JL](#). The early evolving sex hormone environment is associated with significant outcome and inflammatory response differences after injury. *Journal of Trauma and Acute Care Surgery*. 2015 Mar;78(3):451-7; discussion 457-8.

[Wolf MT, Vodovotz Y, Tottey S, Brown BN, Badylak SF](#). Predicting in vivo responses to biomaterials via combined in vitro and in silico analysis. *Tissue Engineering. Part C, Methods*. 2015 Feb;21(2):148-59. Epub 2014 Aug 4.

[Wang J, Vodovotz Y, Fan L, Li Y, Liu Z, Namas R, Barclay D, Zamora R, Billiar TR, Wilson MA, Fan J, Jiang Y](#). Injury-induced MRP8/MRP14 stimulates IP-10/CXCL10 in monocytes/macrophages. *FASEB Journal*. 2015 Jan;29(1):250-62. Epub 2014 Oct 23.

[Sadowsky D, Nieman G, Barclay D, Mi Q, Zamora R, Constantine G, Golub L, Lee HM, Roy S, Gatto LA, Vodovotz Y](#). Impact of chemically-modified tetracycline 3 on intertwined physiological, biochemical, and inflammatory networks in porcine sepsis/ARDS. *International Journal of Burns and Trauma*. 2015 Mar 20;5(1):22-35. eCollection 2015.

[Mathew S, Bartels J, Banerjee I, Vodovotz Y](#). Global sensitivity analysis of a mathematical model of acute inflammation identifies nonlinear dependence of cumulative tissue damage on host interleukin-6 responses. *Journal of Theoretical Biology*. 2014 Oct 7;358:132-48. Epub 2014 Jun 5.

[Vodovotz Y](#). Computational modelling of the inflammatory response in trauma, sepsis and wound healing: implications for modelling resilience. *Interface Focus*. 2014 Oct 6;4(5):20140004. Review.

[Sperry JL, Zolin S, Zuckerbraun BS, Vodovotz Y, Namas R, Neal MD, Ferrell RE, Rosengart MR, Peitzman AB, Billiar TR](#). X chromosome-linked IRAK-1 polymorphism is a strong predictor of multiple organ failure and mortality postinjury. *Annals of Surgery*. 2014 Oct;260(4):698-703; discussion 703-5.

[Zhang Y, Zhang J, Korff S, Ayoob F, Vodovotz Y, Billiar TR](#). Delayed neutralization of interleukin 6 reduces organ injury, selectively suppresses inflammatory mediator, and partially normalizes immune dysfunction following trauma and hemorrhagic shock. *Shock*. 2014 Sep;42(3):218-27.

[Aerts JM, Haddad WM, An G, Vodovotz Y](#). From data patterns to mechanistic models in acute critical illness. *Journal of Critical Care*. 2014 Aug;29(4):604-10. Epub 2014 Mar 29. Review.

Wagner

[Stearns-Reider KM, D'Amore A, Beezhold K, Rothrauff B, Cavalli L, Wagner WR, Vorp DA, Tsamis A, Shinde S, Zhang C, Barchowsky A, Rando TA, Tuan RS, Ambrosio F](#). Aging of the skeletal muscle extracellular matrix drives a stem cell fibrogenic conversion. *Aging Cell*. 2017 Jun;16(3):518-528. Epub 2017 Mar 30.

[Zhu Y, Matsumura Y, Wagner WR](#). Ventricular wall biomaterial injection therapy after myocardial infarction: Advances in material design, mechanistic insight and early clinical experiences. *Biomaterials*. 2017 Jun;129:37-53. Epub 2017 Mar 1. Review.

[Uchibori T, Takanari K, Hashizume R, Amoroso NJ, Kamei Y, Wagner WR](#). Use of a pedicled omental flap to reduce inflammation and vascularize an abdominal wall patch. *Journal of Surgical Research*. 2017 May 15;212:77-85. Epub 2016 Dec 6.

[Wang J, Qin B, Chen X, Wagner WR, Villanueva FS](#). Ultrasound Molecular Imaging of Angiogenesis Using Vascular Endothelial Growth Factor-Conjugated Microbubbles. *Molecular Pharmacology*. 2017 Mar 6;14(3):781-790. Epub 2017 Feb 15.

[Wu WT, Jamiolkowski MA, Wagner WR, Aubry N, Massoudi M, Antaki JF](#). Multi-Constituent Simulation of Thrombus Deposition. *Scientific Reports*. 2017 Feb 20;7:42720.

[Chen Y, Tillman BW, Cho SK, Richards TD, Tevar AD, Gu X, Wagner WR, Chun Y.](#) A novel compartmentalised stent graft to isolate the perfusion of the abdominal organs. *Journal of Medical Engineering and Technology*. 2017 Feb;41(2):141-150. Epub 2016 Oct 7.

[Takanari K, Hashizume R, Hong Y, Amoroso NJ, Yoshizumi T, Gharaibeh B, Yoshida O, Nonaka K, Sato H, Huard J, Wagner WR.](#) Skeletal muscle derived stem cells microintegrated into a biodegradable elastomer for reconstruction of the abdominal wall. *Biomaterials*. 2017 Jan;113:31-41. Epub 2016 Oct 18.

[Krawiec JT, Liao HT, Kwan LL, D'Amore A, Weinbaum JS, Rubin JP, Wagner WR, Vorp DA.](#) Evaluation of the stromal vascular fraction of adipose tissue as the basis for a stem cell-based tissue-engineered vascular graft. *Journal of Vascular Surgery*. 2016 Dec 22. pii: S0741-5214(16)31277-0. [Epub ahead of print]

[D'Amore A, Yoshizumi T, Luketich SK, Wolf MT, Gu X, Cammarata M, Hoff R, Badylak SF, Wagner WR.](#) Bi-layered polyurethane - Extracellular matrix cardiac patch improves ischemic ventricular wall remodeling in a rat model. *Biomaterials*. 2016 Nov;107:1-14. Epub 2016 Aug 19.

[Tillman BW, Chun Y, Cho SK, Chen Y, Liang N, Maul T, Demetris A, Gu X, Wagner WR, Tevar AD.](#) Dual chamber stent prevents organ malperfusion in a model of donation after cardiac death. *Surgery*. 2016 Oct;160(4):892-901. Epub 2016 Aug 11.

[Zhu Y, Wood NA, Fok K, Yoshizumi T, Park D, Jiang H, Schwartzman DS, Zenati MA, Uchibori T, Wagner WR, Riviere CN.](#) Design of a Coupled Thermoresponsive Hydrogel and Robotic System for Postinfarct Biomaterial Injection Therapy. *Annals of Thoracic Surgery*. 2016 Sep;102(3):780-786. Epub 2016 May 4.

[D'Amore A, Soares JS, Stella JA, Zhang W, Amoroso NJ, Mayer JE Jr, Wagner WR, Sacks MS.](#) Large strain stimulation promotes extracellular matrix production and stiffness in an elastomeric scaffold model. *Journal of the Mechanical Behavior of Biomedical Materials*. 2016 Sep;62:619-635. Epub 2016 May 18.

[Takanari K, Hong Y, Hashizume R, Huber A, Amoroso NJ, D'Amore A, Badylak SF, Wagner WR.](#) Abdominal wall reconstruction by a regionally distinct biocomposite of extracellular matrix digest and a biodegradable elastomer. *Journal of Tissue Engineering and Regenerative Medicine*. 2016 Sep;10(9):748-61. Epub 2013 Dec 27.

[Gu X, Mao Z, Ye SH, Koo Y, Yun Y, Tiasha TR, Shanov V, Wagner WR.](#) Biodegradable, elastomeric coatings with controlled anti-proliferative agent release for magnesium-based cardiovascular stents. *Colloids and Surfaces. B, Biointerfaces*. 2016 Aug 1;144:170-179. Epub 2016 Apr 7.

[Jamiolkowski MA, Pedersen DD, Wu WT, Antaki JF, Wagner WR.](#) Visualization and analysis of biomaterial-centered thrombus formation within a defined crevice under flow. *Biomaterials*. 2016 Jul;96:72-83. Epub 2016 Apr 26.

[Fang J, Zhang J, Du J, Pan Y, Shi J, Peng Y, Chen W, Yuan L, Ye SH, Wagner WR, Yin M, Mo X.](#) Orthogonally Functionalizable Polyurethane with Subsequent Modification with Heparin and

Endothelium-Inducing Peptide Aiming for Vascular Reconstruction. *ACS Applied Materials and Interfaces*. 2016 Jun 15;8(23):14442-52.

[Tsamis A, Phillippi JA, Koch RG, Chan PG, Krawiec JT, D'Amore A, Watkins SC, Wagner WR, Vorp DA, Gleason TG](#). Extracellular matrix fiber microarchitecture is region-specific in bicuspid aortic valve-associated ascending aortopathy. *Journal of Thoracic and Cardiovascular Surgery*. 2016 Jun;151(6):1718-1728.e5.

[Krawiec JT, Weinbaum JS, Liao HT, Ramaswamy AK, Pezzone DJ, Josowitz AD, D'Amore A, Rubin JP, Wagner WR, Vorp DA](#). In Vivo Functional Evaluation of Tissue-Engineered Vascular Grafts Fabricated Using Human Adipose-Derived Stem Cells from High Cardiovascular Risk Populations. *Tissue Engineering Part A*. 2016 May;22(9-10):765-75.

[Kim K, Wagner WR](#). Non-invasive and Non-destructive Characterization of Tissue Engineered Constructs Using Ultrasound Imaging Technologies: A Review. *Annals of Biomedical Engineering*. 2016 Mar;44(3):621-35. Review.

[Yoshizumi T, Zhu Y, Jiang H, D'Amore A, Sakaguchi H, Tchao J, Tobita K, Wagner WR](#). Timing effect of intramyocardial hydrogel injection for positively impacting left ventricular remodeling after myocardial infarction. *Biomaterials*. 2016 Mar;83:182-93.

[Pasta S, Phillippi JA, Tsamis A, D'Amore A, Raffa GM, Pilato M, Scardulla C, Watkins SC, Wagner WR, Gleason TG, Vorp DA](#). Constitutive modeling of ascending thoracic aortic aneurysms using microstructural parameters. *Medical Engineering and Physics*. 2016 Feb;38(2):121-30.

[Uchida N, Sivaraman S, Amoroso NJ, Wagner WR, Nishiguchi A, Matsusaki M, Akashi M, Nagatomi J](#). Nanometer-sized extracellular matrix coating on polymer-based scaffold for tissue engineering applications. *Journal of Biomedical Materials Research. Part A*. 2016 Jan;104(1):94-103.

[Chen Y, Emery SP, Maxey AP, Gu X, Wagner WR, Chun Y](#). A novel low-profile ventriculoamniotic shunt for foetal aqueductal stenosis. *Journal of Medical Engineering and Technology*. 2016;40(4):186-98.

[Wagner WR](#). Introduction to Acta Biomaterialia 10th year of publication. *Acta Biomaterialia*. 2015 Sep;23 Suppl:S1.

[Hobson CM, Amoroso NJ, Amini R, Ungchusri E, Hong Y, D'Amore A, Sacks MS, Wagner WR](#). Fabrication of elastomeric scaffolds with curvilinear fibrous structures for heart valve leaflet engineering. *Journal of Biomedical Materials Research. Part A*. 2015 Sep;103(9):3101-6.

[Hemmasizadeh A, Tsamis A, Cheheltani R, Assari S, D'Amore A, Autieri M, Kiani MF, Pleshko N, Wagner WR, Watkins SC, Vorp D, Darvish K](#). Correlations between transmural mechanical and morphological properties in porcine thoracic descending aorta. *Journal of the Mechanical Behaviour of Biomedical Materials*. 2015 Jul;47:12-20.

[Zhu Y, Jiang H, Ye SH, Yoshizumi T, Wagner WR](#). Tailoring the degradation rates of thermally responsive hydrogels designed for soft tissue injection by varying the autocatalytic potential. *Biomaterials*. 2015;53:484-93.

[Fang J, Ye SH, Wang J, Zhao T, Mo X, Wagner WR](#). Thiol click modification of cyclic disulfide containing biodegradable polyurethane urea elastomers. *Biomacromolecules*. 2015 May 11;16(5):1622-33. Epub 2015 Apr 29.

[Jamiolkowski MA, Woolley JR, Kameneva MV, Antaki JF, Wagner WR](#). Real time visualization and characterization of platelet deposition under flow onto clinically relevant opaque surfaces. *Journal of Biomedical Materials Research. Part A*. 2015 Apr;103(4):1303-11. Epub 2014 May 6.

[Ye SH, Arazawa DT, Zhu Y, Shankarraman V, Malkin AD, Kimmel JD, Gamble LJ, Ishihara K, Federspiel WJ, Wagner WR](#). Hollow fiber membrane modification with functional zwitterionic macromolecules for improved thromboresistance in artificial lungs. *Langmuir*. 2015 Mar 3;31(8):2463-71. Epub 2015 Feb 23.

[Woolley JR, Kormos RL, Teuteberg JJ, Bermudez CA, Bhama JK, Lockard KL, Kunz NM, Wagner WR](#). Preoperative liver dysfunction influences blood product administration and alterations in circulating haemostatic markers following ventricular assist device implantation. *European Journal of Cardiothoracic Surgery*. 2015 Mar;47(3):497-504. Epub 2014 May 7.

[Ye SH, Hong Y, Sakaguchi H, Shankarraman V, Luketich SK, D'Amore A, Wagner WR](#). Nonthrombogenic, biodegradable elastomeric polyurethanes with variable sulfobetaine content. *ACS Applied Materials and Interfaces*. 2014 Dec 24;6(24):22796-806. Epub 2014 Dec 4.

[Perkins J, Hong Y, Ye SH, Wagner WR, Desai S](#). Direct writing of bio-functional coatings for cardiovascular applications. *Journal of Biomedical Materials Research Part A*. 2014 Dec;102(12):4290-300. Epub 2014 Feb 4.

[Fang J, Ye SH, Shankarraman V, Huang Y, Mo X, Wagner WR](#). Biodegradable poly(ester urethane)urea elastomers with variable amino content for subsequent functionalization with phosphorylcholine. *Acta Biomaterialia*. 2014 Nov;10(11):4639-49. Epub 2014 Aug 14.

[D'Amore A, Amoroso N, Gottardi R, Hobson C, Carruthers C, Watkins S, Wagner WR, Sacks MS](#). From single fiber to macro-level mechanics: A structural finite-element model for elastomeric fibrous biomaterials. *Journal of the Mechanical Behavior of Biomedical Materials*. 2014 Nov;39:146-61. Epub 2014 Aug 1.

[Park DW, Ye SH, Jiang HB, Dutta D, Nonaka K, Wagner WR, Kim K](#). In vivo monitoring of structural and mechanical changes of tissue scaffolds by multi-modality imaging. *Biomaterials*. 2014 Sep;35(27):7851-9. Epub 2014 Jun 18.

[Sánchez-Palencia DM, D'Amore A, González-Mancera A, Wagner WR, Briceño JC](#). Effects of fabrication on the mechanics, microstructure and micromechanical environment of small intestinal submucosa scaffolds for vascular tissue engineering. *Journal of Biomechanics*. 2014 Aug 22;47(11):2766-73. Epub 2014 May 9.

[Fu HL, Hong Y, Little SR, Wagner WR](#). Collagenase-labile polyurethane urea synthesis and processing into hollow fiber membranes. *Biomacromolecules*. 2014 Aug 11;15(8):2924-32. Epub 2014 Jul 28.

[Shankarraman V, Kocyildirim E, Olia SE, Kameneva MV, Dzadony RJ, Maul TM, Simon MA, Champion HC, Wagner WR, Bermudez CA](#). Biocompatibility Assessment of the CentriMag-Novalung Adult ECMO Circuit in a Model of Acute Pulmonary Hypertension. *ASAIO Journal*. 2014 Jul-Aug;60(4):429-35.

Wang

[Lee SH, Lee KW, Gade PS, Robertson AM, Wang Y](#). Microwave-assisted facile fabrication of porous poly (glycerol sebacate) scaffolds. *Journal of Biomaterials Science. Polymer Edition*. 2017 Jun 16:1-10. [Epub ahead of print]

[Long DW, Johnson NR, Jeffries EM, Hara H, Wang Y](#). Controlled delivery of platelet-derived proteins enhances porcine wound healing. *Journal of Controlled Release*. 2017 May 10;253:73-81. Epub 2017 Mar 14.

[Mansurov N, Chen WCW, Awada H, Huard J, Wang Y, Saparov A](#). A controlled release system for simultaneous delivery of three human perivascular stem cell-derived factors for tissue repair and regeneration. *Journal of Tissue Engineering and Regenerative Medicine*. 2017 May 8. [Epub ahead of print]

[Zaky SH, Lee KW, Gao J, Jensen A, Verdelis K, Wang Y, Almarza AJ, Sfeir C](#). Poly (glycerol sebacate) elastomer supports bone regeneration by its mechanical properties being closer to osteoid tissue rather than to mature bone. *Acta Biomaterialia*. 2017 May;54:95-106. Epub 2017 Jan 19.

[Awada HK, Long DW, Wang Z, Hwang MP, Kim K, Wang Y](#). A single injection of protein-loaded coacervate-gel significantly improves cardiac function post infarction. *Biomaterials*. 2017 May;125:65-80. Epub 2017 Feb 17.

[Lee MS, Ahmad T, Lee J, Awada HK, Wang Y, Kim K, Shin H, Yang HS](#). Dual delivery of growth factors with coacervate-coated poly(lactic-co-glycolic acid) nanofiber improves neovascularization in a mouse skin flap model. *Biomaterials*. 2017 Apr;124:65-77. Epub 2017 Jan 30.

[Ângelo DF, Monje FG, González-García R, Little CB, Mónico L, Pinho M, Santos FA, Carrapiço B, Gonçalves SC, Morouço P, Alves N, Moura C, Wang Y, Jeffries E, Gao J, Sousa R, Neto LL, Caldeira D, Salvado F](#). Bioengineered Temporomandibular Joint Disk Implants: Study Protocol for a Two-Phase Exploratory Randomized Preclinical Pilot Trial in 18 Black Merino Sheep (TEMPOJIMS). *JMIR Research Protocols*. 2017 Mar 2;6(3):e37.

[Ding X, Gao J, Wang Z, Awada H, Wang Y](#). A shear-thinning hydrogel that extends in vivo bioactivity of FGF2. *Biomaterials*. 2016 Dec;111:80-89. Epub 2016 Sep 30.

[Chen WC, Wang Z, Missinato MA, Park DW, Long DW, Liu HJ, Zeng X, Yates NA, Kim K, Wang Y](#). Decellularized zebrafish cardiac extracellular matrix induces mammalian heart regeneration. *Scientific Advances*. 2016 Nov 18;2(11):e1600844. eCollection 2016 Nov.

[Chen S, Bi X, Sun L, Gao J, Huang P, Fan X, You Z, Wang Y](#). Poly(sebacoyl diglyceride) Cross-Linked by Dynamic Hydrogen Bonds: A Self-Healing and Functionalizable Thermoplastic Bioelastomer. *ACS Applied Materials and Interfaces*. 2016 Aug 17;8(32):20591-9. Epub 2016 Aug 2.

[Khosravi R, Best CA, Allen RA, Stowell CE, Onwuka E, Zhuang JJ, Lee YU, Yi T, Bersi MR, Shinoka T, Humphrey JD, Wang Y, Breuer CK](#). Long-Term Functional Efficacy of a Novel Electrospun Poly(Glycerol Sebacate)-Based Arterial Graft in Mice. *Annals of Biomedical Engineering*. 2016 Aug;44(8):2402-16. Epub 2016 Jan 21.

[Wu J, Ye J, Zhu J, Xiao Z, He C, Shi H, Wang Y, Lin C, Zhang H, Zhao Y, Fu X, Chen H, Li X, Li L, Zheng J, Xiao J](#). Heparin-Based Coacervate of FGF2 Improves Dermal Regeneration by Asserting a Synergistic Role with Cell Proliferation and Endogenous Facilitated VEGF for Cutaneous Wound Healing. *Biomacromolecules*. 2016 Jun 13;17(6):2168-77. Epub 2016 May 26.

[Kostereva NV, Wang Y, Fletcher DR, Unadkat JV, Schnider JT, Komatsu C, Yang Y, Stolz DB, Davis MR, Plock JA, Gorantla VS](#). IGF-1 and Chondroitinase ABC Augment Nerve Regeneration after Vascularized Composite Limb Allograft Transplantation. *PLoS One*. 2016 Jun 7;11(6):e0156149.

[Wang S, Jeffries E, Gao J, Sun L, You Z, Wang Y](#). Polyester with Pendent Acetylcholine-Mimicking Functionalities Promotes Neurite Growth. *ACS Applied Materials and Interfaces*. 2016 Apr 20;8(15):9590-9.

[Awada HK, Hwang MP, Wang Y](#). Towards comprehensive cardiac repair and regeneration after myocardial infarction: Aspects to consider and proteins to deliver. *Biomaterials*. 2016 Mar;82:94-112.

[Chen WC, Lee BG, Park DW, Kim K, Chu H, Kim K, Huard J, Wang Y](#). Controlled dual delivery of fibroblast growth factor-2 and Interleukin-10 by heparin-based coacervate synergistically enhances ischemic heart repair. *Biomaterials*. 2015 Dec;72:138-51.

[Xie Q, Wang Z, Huang Y, Bi X, Zhou H, Lin M, Yu Z, Wang Y, Ni N, Sun J, Wu S, You Z, Guo C, Sun H, Wang Y, Gu P, Fan X](#). Characterization of human ethmoid sinus mucosa derived mesenchymal stem cells (hESMSCs) and the application of hESMSCs cell sheets in bone regeneration. *Biomaterials*. 2015 Oct;66:67-82.

[Sinha MK, Gao J, Stowell CE, Wang Y](#). Synthesis and biocompatibility of a biodegradable and functionalizable thermo-sensitive hydrogel. *Regenerative Biomaterials*. 2015 Sep;2(3):177-85.

[Awada HK, Johnson NR, Wang Y](#). Sequential delivery of angiogenic growth factors improves revascularization and heart function after myocardial infarction. *Journal of Controlled Release*. 2015 Jun 10;207:7-17. Epub 2015 Mar 31.

[Rauck BM, Novosat TL, Oudega M, Wang Y](#). Biocompatibility of a coacervate-based controlled release system for protein delivery to the injured spinal cord. *Acta Biomaterialia*. 2015 Jan;11:204-11. Epub 2014 Oct 8.

[Xiao J, Wang Y, Bellusci S, Li X](#). Pharmacological application of growth factors: basic and clinical. *Biomedical Research International*. 2015;2015:141794. Epub 2015 Jan 5.

[Johnson NR, Wang Y](#). Controlled Delivery of Sonic Hedgehog with a Heparin-Based Coacervate. *Methods in Molecular Biology*. 2015;1322:1-7.

[Johnson NR, Wang Y](#). Coacervate delivery systems for proteins and small molecule drugs. *Expert Opinion on Drug Delivery*. 2014 Dec;11(12):1829-32. Epub 2014 Aug 19.

Wells

[Khazali AS, Clark AM, Wells A](#). A Pathway to Personalizing Therapy for Metastases Using Liver-on-a-Chip Platforms. *Stem Cell Review*. 2017 Jun;13(3):364-380.

[Wells A, Ma B](#). Friend turned foe: E-cadherin perversely protects micrometastases. *Translational Andrology and Urology*. 2017 Apr;6(2):338-340.

[Stram M, Seheult J, Suci C, McCullough M, Ismail N, Pasculle W, Wells A](#). Interpretation of HSV Positive Respiratory Specimens Using Quantitative PCR. *American Journal of Clinical Pathology*. 2017 Mar 1;147(suppl_2):S168-S169.

[González Á, García de Durango C, Alonso V, Bravo B, Rodríguez de Gortázar A, Wells A, Forteza J, Vidal-Vanaclocha F](#). Distinct Osteomimetic Response of Androgen-Dependent and Independent Human Prostate Cancer Cells to Mechanical Action of Fluid Flow: Prometastatic Implications. *Prostate*. 2017 Feb;77(3):321-333. Epub 2016 Nov 3.

[Clark AM, Wheeler SE, Young CL, Stockdale L, Shepard Neiman J, Zhao W, Stolz DB, Venkataramanan R, Lauffenburger D, Griffith L, Wells A](#). A liver microphysiological system of tumor cell dormancy and inflammatory responsiveness is affected by scaffold properties. *Lab on a Chip*. 2016 Dec 20;17(1):156-168.

[Huen AC, Marathi A, Nam PK, Wells A](#). CXCL11 Expression by Keratinocytes Occurs Transiently Between Reaching Confluence and Cellular Compaction. *Advances in Wound Care (New Rochelle)*. 2016 Dec 1;5(12):517-526.

[Nuschke A, Rodrigues M, Wells AW, Sylakowski K, Wells A](#). Mesenchymal stem cells/multipotent stromal cells (MSCs) are glycolytic and thus glucose is a limiting factor of in vitro models of MSC starvation. *Stem Cell Research and Therapy*. 2016 Dec 1;7(1):179.

[Ma B, Wheeler SE, Clark AM, Whaley DL, Yang M, Wells A](#). Liver protects metastatic prostate cancer from induced death by activating E-cadherin signaling. *Hepatology*. 2016 Nov;64(5):1725-1742. Epub 2016 Sep 23.

[Nuschke A, Rodrigues M, Rivera J, Yates C, Whaley D, Stolz D, Griffith L, Wells A](#). Epidermal Growth Factor Tethered to β -Tricalcium Phosphate Bone Scaffolds via a High-Affinity Binding Peptide Enhances Survival of Human Mesenchymal Stem Cells/Multipotent Stromal Cells in an Immune-Competent Parafascial Implantation Assay in Mice. *Stem Cells Translational Medicine*. 2016 Nov;5(11):1580-1586. Epub 2016 Jul 8.

[Clark AM, Ma B, Taylor DL, Griffith L, Wells A](#). Liver metastases: Microenvironments and ex-vivo models. *Experimental Biology and Medicine* (Maywood). 2016 Sep;241(15):1639-52. Epub 2016 Jul 6. Review.

[Yang M, Ma B, Shao H, Clark AM, Wells A](#). Macrophage phenotypic subtypes diametrically regulate epithelial-mesenchymal plasticity in breast cancer cells. *BMC Cancer*. 2016 Jul 7;16:419.

[Bodnar RJ, Satish L, Yates CC, Wells A](#). Pericytes: A newly recognized player in wound healing. *Wound Repair and Regeneration*. 2016 Mar;24(2):204-14.

[Wells A, Nuschke A, Yates CC](#). Skin tissue repair: Matrix microenvironmental influences. *Matrix Biology*. 2016 Jan;49:25-36. Review.

[Richard S, Wells A, Connor J, Price F](#). Use of ChemoFx® for Identification of Effective Treatments in Epithelial Ovarian Cancer. *PLoS Currents*. 2015 Jul 13;7. pii: ecurrents.eogt.8b0b6fffc7b999b34bc4c8152edbf237.

[Ma B, Khazali A, Wells A](#). CXCR3 in carcinoma progression. *Histology and Histopathology*. 2015 Jul;30(7):781-92. doi: 10.14670/HH-11-594. Review.

[Travers T, Shao H, Joughin BA, Lauffenburger DA, Wells A, Camacho CJ](#). Tandem phosphorylation within an intrinsically disordered region regulates ACTN4 function. *Science Signaling*. 2015 May 26;8(378):ra51.

[Furukawa M, Wheeler S, Clark AM, Wells A](#). Lung epithelial cells induce both phenotype alteration and senescence in breast cancer cells. *PLoS One*. 2015 Jan 30;10(1):e0118060. eCollection 2015.

[Warita K, Warita T, Beckwitt CH, Schurdak ME, Vazquez A, Wells A, Oltvai ZN](#). Statin-induced mevalonate pathway inhibition attenuates the growth of mesenchymal-like cancer cells that lack functional E-cadherin mediated cell cohesion. *Science Reports*. 2014 Dec 23;4:7593.

[Shao H, Li S, Watkins SC, Wells A](#). α -Actinin-4 is required for amoeboid-type invasiveness of melanoma cells. *Journal of Biological Chemistry*. 2014 Nov 21;289(47):32717-28. Epub 2014 Oct 8.

[Clark AM, Wheeler SE, Taylor DP, Pillai VC, Young CL, Prantil-Baun R, Nguyen T, Stolz DB, Borenstein JT, Lauffenburger DA, Venkataramanan R, Griffith LG, Wells A](#). A microphysiological system model of therapy for liver micrometastases. *Experimental Biology and Medicine* (Maywood). 2014 Sep;239(9):1170-9. Epub 2014 May 12.