McGOWAN INSTITUTE FOR REGENERATIVE MEDICINE
Regeneration Through Innovation™

# Core Faculty Publications

**July 2013 - June 2016**

Fabrisia Ambrosio
Stephen Badylak
Christian Bermudez
Timothy Billiar
Harvey Borovetz
Bryan Brown
Xinyan Tracy Cui
Albert Donnenberg
Vera Donnenberg
Andrew Duncan
William Federspiel
Paulo Fontes
Ira Fox
Freddie Fu
Jörg Gerlach
Vijay Gorantla
Patricia Hebda
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
Peter Wearden
Alan Wells
Savio Woo

**Ambrosio**

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.

Sicari BM, Rubin JP, Dearth CL, Wolf MT, **Ambrosio F**, Boninger M, Turner NJ, Weber DJ, Simpson TW, Wyse A, Brown EH, Dziki JL, Fisher LE, Brown S, Badylak SF. An acellular biologic scaffold promotes skeletal muscle formation in mice and humans with volumetric muscle loss. *Science Translational Medicine*. 2014 Apr 30;6(234):234ra58.

Avin KG, Coen PM, Huang W, Stolz DB, Sowa GA, Dubé JJ, Goodpaster BH, O'Doherty RM, **Ambrosio F**. Skeletal muscle as a regulator of the longevity protein, Klotho. *Frontiers in Physiology*. 2014 Jun 17;5:189.

Modo M, **Ambrosio F**, Friedlander RM, Badylak SF, Wechsler LR. Bioengineering solutions for neural repair and recovery in stroke. *Current Opinions in Neurology*. 2013 Dec;26(6):626-31. Review.

Garciafigueroa DY, Klei LR, **Ambrosio F**, Barchowsky A. Arsenic-stimulated lipolysis and adipose remodeling is mediated by G-protein-coupled receptors. *Toxicological Science*. 2013 Aug;134(2):335-44.

**Badylak**

Ghuman H, Massensini AR, Donnelly J, Kim SM, Medberry CJ, **Badylak SF**, Modo 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, 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, Loboa 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 Neuroscien*ce. 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 Techiques*. 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.

Meng F, Modo M, **Badylak SF**. Biologic scaffold for CNS repair. *Regenerative Medicine*. 2014 May;9(3):367-83.

Sicari BM, Rubin JP, Dearth CL, Wolf MT, Ambrosio F, Boninger M, Turner NJ, Weber DJ, Simpson TW, Wyse A, Brown EH, Dziki JL, Fisher LE, Brown S, **Badylak SF**. An acellular biologic scaffold promotes skeletal muscle formation in mice and humans with volumetric muscle loss. *Science Translational Medicine*. 2014 Apr 30;6(234):234ra58.

Brown BN, **Badylak SF**. Extracellular matrix as an inductive scaffold for functional tissue reconstruction. *Translational Research*. 2014 Apr;163(4):268-85. Epub 2013 Nov 8. Review.

Faulk DM, Carruthers CA, Warner HJ, Kramer CR, Reing JE, Zhang L, D'Amore A, **Badylak SF**. The effect of detergents on the basement membrane complex of a biologic scaffold material. *Acta Biomaterialia*. 2014 Jan;10(1):183-93. Epub 2013 Sep 18.

Sicari BM, Dearth CL, **Badylak SF**. Tissue engineering and regenerative medicine approaches to enhance the functional response to skeletal muscle injury. *Anatomical Record (Hoboken)*. 2014 Jan;297(1):51-64. Epub 2013 Dec 2.

Sicari BM, Zhang L, Londono R, **Badylak SF**. An assay to quantify chemotactic properties of degradation products from extracellular matrix. *Methods in Molecular Biology*. 2014;1202:103-10.

Crapo PM, Tottey S, Slivka PF, **Badylak SF**. Effects of biologic scaffolds on human stem cells and implications for CNS tissue engineering. *Tissue Engineering Part A*. 2014 Jan;20(1-2):313-23. Epub 2013 Oct 10.

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*. 2013 Dec 27. [Epub ahead of print]

Modo M, Ambrosio F, Friedlander RM, **Badylak SF**, Wechsler LR. Bioengineering solutions for neural repair and recovery in stroke. *Current Opinions in Neurology*. 2013 Dec;26(6):626-31. Review.

Goh SK, Bertera S, Olsen P, Candiello JE, Halfter W, Uechi G, Balasubramani M, Johnson SA, Sicari BM, Kollar E, **Badylak SF**, Banerjee I. Perfusion-decellularized pancreas as a natural 3D scaffold for pancreatic tissue and whole organ engineering. *Biomaterials*. 2013 Sep;34(28):6760-72. Epub 2013 Jun 17.

Keane TJ, Londono R, Carey RM, Carruthers CA, Reing JE, Dearth CL, D'Amore A, Medberry CJ, **Badylak SF**. Preparation and characterization of a biologic scaffold from esophageal mucosa. *Biomaterials*. 2013 Sep;34(28):6729-37. Epub 2013 Jun 15.

Turner NJ, Keane TJ, **Badylak SF**. Lessons from developmental biology for regenerative medicine. *Birth Defects Research. Part C, Embryo Today*. 2013 Sep;99(3):149-59. Review.

Zhang L, Zhang F, Weng Z, Brown BN, Yan H, Ma XM, Vosler PS, **Badylak SF**, Dixon CE, Cui XT, Chen J. Effect of an inductive hydrogel composed of urinary bladder matrix upon functional recovery following traumatic brain injury. *Tissue Engineering Part A*. 2013 Sep;19(17-18):1909-18. Epub 2013 May 31.

Sawkins MJ, Bowen W, Dhadda P, Markides H, Sidney LE, Taylor AJ, Rose FR, **Badylak SF**, Shakesheff KM, White LJ. Hydrogels derived from demineralized and decellularized bone extracellular matrix. *Acta Biomaterialia*. 2013 Aug;9(8):7865-73. Epub 2013 Apr 25.

Wolf MT, Carruthers CA, Dearth CL, Crapo PM, Huber A, Burnsed OA, Londono R, Johnson SA, Daly KA, Stahl EC, Freund JM, Medberry CJ, Carey LE, Nieponice A, Amoroso NJ, **Badylak SF**. Polypropylene surgical mesh coated with extracellular matrix mitigates the host foreign body response. *Journal of Biomedical Materials Research*. Part A. 2014 Jan;102(1):234-46. Epub 2013 Jul 19.

**Bermudez**

Crespo MM, **Bermudez CA**, Dew MA, Johnson BA, George MP, Bhama J, Morrell M, D'Cunha J, Shigemura N, Richards TJ, Pilewski JM. Lung Transplant in Patients with Scleroderma Compared with Pulmonary Fibrosis. Short- and Long-Term Outcomes. *Annals of the American Thoracic Society*. 2016 Jun;13(6):784-92.

Mahesh B, Bhama JK, Odell DD, Hayanga AJ, **Bermudez CA**, Morrell MR, Crespo MM, Pilewski JM, Johnson BA, Luketich JD, D'Cunha J, Shigemura N. Surgical Strategy for Lung

Transplantation in Adults With Small Chests: Lobar Transplant Versus a Pediatric Donor. *Transplantation*. 2016 Jan 12. [Epub ahead of print]

Rosenberger EM, DiMartini AF, DeVito Dabbs AJ, **Bermudez CA**, Pilewski JM, Toyoda Y, Dew MA. Psychiatric Predictors of Long-term Transplant-Related Outcomes in Lung Transplant Recipients. *Transplantation*. 2016 Jan;100(1):239-47.

**Bermudez CA**, Zaldonis D, Fan MH, Pilewski JM, Crespo MM. Prolonged Use of the Hemolung Respiratory Assist System as a Bridge to Redo Lung Transplantation. *Annals of Thoracic Surgery*. 2015 Dec;100(6):2330-3.

**Bermudez CA**, Rame JE. Reversible but risky: Pulmonary hypertension in advanced heart failure is the Achilles' heel of cardiac transplantation. *Journal of Thoracic and Cardiovascular Surgery*. 2015 Nov;150(5):1362-3. Epub 2015 Aug 6.

Zaldonis J, Alrawashdeh M, Atman KS, Fatigati A, Dabbs AD, **Bermudez CA**. Predictors and influence of goal orientation on self-management and health-related quality of life after lung transplant. *Progress in Transplantation*. 2015 Sep;25(3):230-42.

McCarthy FH, McDermott KM, Kini V, Gutsche JT, Wald JW, Xie D, Szeto WY, **Bermudez CA**, Atluri P, Acker MA, Desai ND. Trends in U.S. Extracorporeal Membrane Oxygenation Use and Outcomes: 2002-2012. *Seminars in Thoracic and Cardiovascular Surgery*. 2015 Summer;27(2):81-8. Epub 2015 Jul 22.

Tanaka Y, Noda K, Isse K, Tobita K, Maniwa Y, Bhama JK, D'Cunha J, **Bermudez CA**, Luketich JD, Shigemura N. A novel dual ex vivo lung perfusion technique improves immediate outcomes in an experimental model of lung transplantation. *American Journal of Transplantation*. 2015 May;15(5):1219-30. Epub 2015 Mar 16.

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.

Hayanga AJ, Aboagye JK, Hayanga HE, Morrell M, Huffman L, Shigemura N, Bhama JK, D'Cunha J, **Bermudez CA**. Contemporary analysis of early outcomes after lung transplantation in the elderly using a national registry. *Journal of Heart and Lung Transplantation*. 2015 Feb;34(2):182-8. Epub 2014 Nov 6.

Hayanga AJ, Aboagye J, Esper S, Shigemura N, **Bermudez CA**, D'Cunha J, Bhama JK. Extracorporeal membrane oxygenation as a bridge to lung transplantation in the United States: an evolving strategy in the management of rapidly advancing pulmonary disease. *Journal of Thoracic and Cardiovascular Surgery*. 2015 Jan;149(1):291-6. Epub 2014 Sep 17.

**Bermudez CA**, Shiose A, Esper SA, Shigemura N, D'Cunha J, Bhama JK, Richards TJ, Arlia P, Crespo MM, Pilewski JM. Outcomes of intraoperative venoarterial extracorporeal membrane oxygenation versus cardiopulmonary bypass during lung transplantation. *Annals of Thoracic Surgery*. 2014 Dec;98(6):1936-42; discussion 1942-3. Epub 2014 Oct 22.

Morrell MR, Pilewski JM, Gries CJ, Pipeling MR, Crespo MM, Ensor CR, Yousem SA, D'Cunha J, Shigemura N, **Bermudez CA**, McDyer JF, Zeevi A. De novo donor-specific HLA antibodies are associated with early and high-grade bronchiolitis obliterans syndrome and death after lung transplantation. *Journal of Heart and Lung Transplantation*. 2014 Dec;33(12):1288-94. Epub 2014 Aug 23.

Shigemura N, Horai T, Bhama JK, D'Cunha J, Zaldonis D, Toyoda Y, Pilewski JM, Luketich JD, **Bermudez CA**. Lung transplantation with lungs from older donors: recipient and surgical factors affect outcomes. *Transplantation*. 2014 Oct 27;98(8):903-8.

Noda K, Shigemura N, Tanaka Y, Bhama J, D'Cunha J, Kobayashi H, Luketich JD, **Bermudez CA**. Hydrogen preconditioning during ex vivo lung perfusion improves the quality of lung grafts in rats. *Transplantation*. 2014 Sep 15;98(5):499-506.

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. *The Thoracic and Cardiovascular Surgeon*. 2014 Aug;62(5):427-33. Epub 2014 May 1.

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

Shigemura N, Orhan Y, Bhama JK, D'Cunha J, Zaldonis D, Pilewski JM, Luketich JD, **Bermudez CA**. Delayed chest closure after lung transplantation: techniques, outcomes, and strategies. *Journal of Heart and Lung Transplantation*. 2014 Jul;33(7):741-8. Epub 2014 Mar 12.

Woolley JR, Teuteberg JJ, **Bermudez CA**, Bhama JK, Lockard KL, Kormos RL, Wagner WR. Temporal leukocyte numbers and granulocyte activation in pulsatile and rotary ventricular assist device patients. *Artificial Organs*. 2014 Jun;38(6):447-55. Epub 2013 Oct 29.

Chivukula S, Shullo MA, Kormos RL, **Bermudez CA**, McNamara DM, Teuteberg JJ. Cancer-free survival following alemtuzumab induction in heart transplantation. *Transplantation Proceedings*. 2014 Jun;46(5):1481-8.

Ortiz-Pujols S, Jones SW, Short KA, Morrell MR, **Bermudez CA**, Tilley SL, Cairns BA. Management and sequelae of a 41-year-old jehovah's witness with severe anhydrous ammonia inhalation injury. *Journal of Burn Care and Research*. 2014 May-Jun;35(3):e180-3.

Noda K, Shigemura N, Tanaka Y, Bhama JK, D'Cunha J, Luketich JD, **Bermudez CA**. Successful prolonged ex vivo lung perfusion for graft preservation in rats. *European Journal of Cardiothoracic Surgery*. 2014 Mar;45(3):e54-60. Epub 2014 Jan 14.

Rocha RV, Zaldonis D, Badhwar V, Wei LM, Bhama JK, Shapiro R, **Bermudez CA**. Long-term patient and allograft outcomes of renal transplant recipients undergoing cardiac surgery. *Journal of Thoracic and Cardiovascular Surgery*. 2014 Jan;147(1):270-5. Epub 2012 Nov 21.

Bhama JK, Bansal A, Shigemura N, **Bermudez CA**, Toyoda Y. Sternal-sparing approach for reoperative bilateral lung transplantation. *Interactive Cardiovascular and Thoracic Surgery*. 2013 Nov;17(5):835-7. Epub 2013 Jul 11.

Shigemura N, Gilbert S, Bhama JK, Crespo MM, Zaldonis D, Pilewski JM, **Bermudez CA**. Lung transplantation after lung volume reduction surgery. *Transplantation*. 2013 Aug 27;96(4):421-5.

Shields RK, Clancy CJ, Minces LR, Shigemura N, Kwak EJ, Silveira FP, Abdel-Massih RC, Bhama JK, **Bermudez CA**, Pilewski JM, Crespo M, Toyoda Y, Nguyen MH. Epidemiology and outcomes of deep surgical site infections following lung transplantation. *American Journal of Transplantation*. 2013 Aug;13(8):2137-45. 2013 May 24.

Shigemura N, D'Cunha J, Bhama JK, Shiose A, Abou El Ela A, Hackmann A, Zaldonis D, Toyoda Y, Pilewski JM, Luketich JD, **Bermudez CA**. Lobar Lung Transplantation: A Relevant Surgical Option in the Current Era of Lung Allocation Score. *Annals of Thoracic Surgery*. 2013 Aug;96(2):451-6. 2013 Jun 15.

**Billiar**

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.

Brown JB, Rosengart MR, Kahn JM, Mohan D, Zuckerbraun BS, **Billiar TR**, Peitzman AB, Angus DC, Sperry JL. Impact of Volume Change Over Time on Trauma Mortality in the United States. *Annals of Surgery*. 2016 Jun 15. [Epub ahead of print]

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.

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 May 11. [Epub ahead of print]

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 β3 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. *Pulminary 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 JI, 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.

Zaaqoq AM, Namas R, Almahmoud K, Azhar N, Mi Q, Zamora R, Brienza DM, **Billiar TR**, Vodovotz Y. Inducible protein-10, a potential driver of neurally controlled interleukin-10 and morbidity in human blunt trauma. *Critical Care Medicine*. 2014 Jun;42(6):1487-97.

Bauer EM, Chanthaphavong RS, Sodhi CP, Hackam DJ, **Billiar TR**, Bauer PM. Genetic deletion of toll-like receptor 4 on platelets attenuates experimental pulmonary hypertension. *Circulation Research*. 2014 May 9;114(10):1596-600. Epub 2014 Mar 17.

Afrazi A, Branca MF, Sodhi CP, Good M, Yamaguchi Y, Egan CE, Lu P, Jia H, Shaffiey S, Lin J, Ma C, Vincent G, Prindle T Jr, Weyandt S, Neal MD, Ozolek JA, Wiersch J, Tschurtschenthaler M, Shiota C, Gittes GK, **Billiar TR**, Mollen K, Kaser A, Blumberg R, Hackam DJ. Toll-like receptor 4-mediated endoplasmic reticulum stress in intestinal crypts induces necrotizing enterocolitis. *Journal of Biological Chemistry*. 2014 Apr 4;289(14):9584-99. Epub 2014 Feb 11.

Kang R, Zhang Q, Hou W, Yan Z, Chen R, Bonaroti J, Bansal P, **Billiar TR**, Tsung A, Wang Q, Bartlett DL, Whitcomb DC, Chang EB, Zhu X, Wang H, Lu B, Tracey KJ, Cao L, Fan XG, Lotze MT, Zeh HJ 3rd, Tang D. Intracellular Hmgb1 inhibits inflammatory nucleosome release and limits acute pancreatitis in mice. *Gastroenterology*. 2014 Apr;146(4):1097-107. Epub 2013 Dec 17.

Kang R, Tang D, Schapiro NE, Loux T, Livesey KM, **Billiar TR**, Wang H, Van Houten B, Lotze MT, Zeh HJ. The HMGB1/RAGE inflammatory pathway promotes pancreatic tumor growth by regulating mitochondrial bioenergetics. *Oncogene*. 2014 Jan 30;33(5):567-77. Epub 2013 Jan 14.

Zhu X, Pribis JP, Rodriguez PC, Morris SM Jr, Vodovotz Y, **Billiar TR**, Ochoa JB. The central role of arginine catabolism in T-cell dysfunction and increased susceptibility to infection after physical injury. *Annals of Surgery*. 2014 Jan;259(1):171-8.

Chen C, Deng M, Sun Q, Loughran P, **Billiar TR**, Scott MJ. Lipopolysaccharide stimulates p62-dependent autophagy-like aggregate clearance in hepatocytes. *BioMed Research International*. 2014;2014:267350. Epub 2014 Feb 10.

Wang JM, Isenberg JS, **Billiar TR**, Chen AF. Thrombospondin-1/CD36 pathway contributes to bone marrow-derived angiogenic cell dysfunction in type 1 diabetes via Sonic hedgehog pathway suppression. *American Journal of Physiology. Endocrinology and Metabolism*. 2013 Dec;305(12):E1464-72. doi: 10.1152/ajpendo.00516.2013. Epub 2013 Oct 22.

Lei J, Vodovotz Y, Tzeng E, **Billiar TR**. Nitric oxide, a protective molecule in the cardiovascular system. *Nitric Oxide*. 2013 Nov 30;35:175-85. Epub 2013 Oct 1. Review.

Lakkis FG, **Billiar TR**. Molecular analysis of transplant rejection: marching onward. *Journal of Experimental Medicine*. 2013 Oct 21;210(11):2147-9. Review.

Ding N, Zhang Y, Loughran PA, Wang Q, Tsung A, **Billiar TR**. TIFA upregulation after hypoxia-reoxygenation is TLR4- and MyD88-dependent and associated with HMGB1 upregulation and release. *Free Radical Biology and Medicine*. 2013 Oct;63:361-7. Epub 2013 May 28.

Korff S, Loughran P, Cai C, Lee YS, Scott M, **Billiar TR**. Eritoran attenuates tissue damage and inflammation in hemorrhagic shock/trauma. *Journal of Surgical Research*. 2013 Oct;184(2):e17-25. Epub 2013 Mar 27.

Polanco PM, Brown JB, Puyana JC, **Billiar TR**, Peitzman AB, Sperry JL. The swinging pendulum: a national perspective of nonoperative management in severe blunt liver injury. *Journal of Trauma and Acute Care Surgery*. 2013 Oct;75(4):590-5.

Dwyer CR, Scifres AM, Stahlfeld KR, Corcos AC, Ziembicki JA, Summers JI, Peitzman AB, **Billiar TR**, Sperry JL. Radiographic assessment of ground-level falls in elderly patients: Is the "PAN-SCAN" overdoing it? *Surgery*. 2013 Oct;154(4):816-20; discussion 820-2.

Pfeifer R, Darwiche S, Kohut L, **Billiar TR**, Pape HC. Cumulative effects of bone and soft tissue injury on systemic inflammation: a pilot study. *Clinical Orthopaedics and Related Research*. 2013 Sep;471(9):2815-21.

Huang H, Chen HW, Evankovich J, Yan W, Rosborough BR, Nace GW, Ding Q, Loughran P, Beer-Stolz D, **Billiar TR**, Esmon CT, Tsung A. Histones activate the NLRP3 inflammasome in Kupffer cells during sterile inflammatory liver injury. *Journal of Immunology*. 2013 Sep 1;191(5):2665-79. Epub 2013 Jul 31.

Vodovotz Y, **Billiar TR**. In silico modeling: methods and applications to trauma and sepsis. *Critical Care Medicine*. 2013 Aug;41(8):2008-14. Review.

Cai C, Shi X, Korff S, Zhang J, Loughran PA, Ruan X, Zhang Y, Liu L, **Billiar TR**. CD14 contributes to warm hepatic ischemia-reperfusion injury in mice. *Shock*. 2013 Aug;40(2):115-21.

Howell GM, Gomez H, Collage RD, Loughran P, Zhang X, Escobar DA, **Billiar TR**, Zuckerbraun BS, Rosengart MR. Augmenting autophagy to treat acute kidney injury during endotoxemia in mice. *PLoS One*. 2013 Jul 30;8(7):e69520. Print 2013.

Stoyanovsky DA, Scott MJ, **Billiar TR**. Glutathione and thioredoxin type 1 cooperatively denitrosate HepG2 cells-derived cytosolic S-nitrosoproteins. *Organic and Biomolecular Chemistry*. 2013 Jul 21;11(27):4433-7.

Liu Z, Jiang Y, Li Y, Wang J, Fan L, Scott MJ, Xiao G, Li S, **Billiar TR**, Wilson MA, Fan J. TLR4 Signaling augments monocyte chemotaxis by regulating G protein-coupled receptor kinase 2 translocation. *Journal of Immunology*. 2013 Jul 15;191(2):857-64. Epub 2013 Jun 14. Erratum in: *Journal of Immunology*. 2013 Sep 1;191(5):2847.

Namas RA, Bartels J, Hoffman R, Barclay D, **Billiar TR**, Zamora R, Vodovotz Y. Combined in silico, in vivo, and in vitro studies shed insights into the acute inflammatory response in middle-aged mice. *PLoS One*. 2013 Jul 2;8(7):e67419. Print 2013.

Nace GW, Huang H, Klune JR, Eid RE, Rosborough BR, Korff S, Li S, Shapiro RA, Stolz DB, Sodhi CP, Hackam DJ, Geller DA, **Billiar TR**, Tsung A. Cellular-specific role of toll-like receptor 4 in hepatic ischemia-reperfusion injury in mice. *Hepatology*. 2013 Jul;58(1):374-87. 2013 May 27.

Obermajer N, Wong JL, Edwards RP, Chen K, Scott M, Khader S, Kolls JK, Odunsi K, **Billiar TR**, Kalinski P. Induction and stability of human Th17 cells require endogenous NOS2 and cGMP-dependent NO signaling. *Journal of Experimental Medicine*. 2013 Jul 1;210(7):1433-445.

Early BJ, Huang DT, Callaway CW, Zenati M, Angus DC, Gunn SR, Yealy DM, Unikel D, **Billiar TR**, Peitzman AB, Sperry JL. Multidisciplinary acute care research organization (MACRO): if you build it, they will come. *Journal of Trauma and Acute Care Surgery*. 2013 Jul;75(1):106-9.

Brown JB, Watson GA, Forsythe RM, Alarcon LH, Bauza G, Murdock AD, **Billiar TR**, Peitzman AB, Sperry JL. American College of Surgeons trauma center verification versus state designation: are Level II centers slipping through the cracks? *Journal of Trauma and Acute Care Surgery*. 2013 Jul;75(1):44-9; discussion 49.

**Borovetz**

Ng EY, **Borovetz HS**, Soudah E, Sun Z. Numerical methods and applications in biomechanical modeling. *Computational and Mathematical Methods in Medicine*. 2013;2013:727830. Epub 2013 Nov 26.

**Brown**

**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. *Americal 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.

**Brown BN**, Siebenlist NJ, Cheetham J, Ducharme NG, Rawlinson JJ, Bonassar LJ. Computed tomography-guided tissue engineering of upper airway cartilage. Tissue Engineering. Part C, Methods. 2014 Jun;20(6):506-13. Epub 2013 Dec 11.

Grevemeyer B, Bogdanovic L, Canton S, St Jean G, Cercone M, Ducharme NG, **Brown BN**. Regenerative medicine approach to reconstruction of the equine upper airway. *Tissue Engineering Part A*. 2014 Apr;20(7-8):1213-21. Epub 2014 Mar 21.

**Brown BN**, Badylak SF. Extracellular matrix as an inductive scaffold for functional tissue reconstruction. *Translational Research*. 2014 Apr;163(4):268-85. Epub 2013 Nov 8. Review.

Udpa N, Iyer SR, Rajoria R, Breyer KE, Valentine H, Singh B, McDonough SP, **Brown BN**, Bonassar LJ, Gao Y. Effects of chitosan coatings on polypropylene mesh for implantation in a rat abdominal wall model. *Tissue Engineering Part A*. 2013 Dec;19(23-24):2713-23. Epub 2013 Aug 21.

Zhang L, Zhang F, Weng Z, **Brown BN**, Yan H, Ma XM, Vosler PS, Badylak SF, Dixon CE, Cui XT, Chen J. Effect of an inductive hydrogel composed of urinary bladder matrix upon functional recovery following traumatic brain injury. *Tissue Engineering Part A*. 2013 Sep;19(17-18):1909-18. 2013 May 31.

Remlinger NT, Gilbert TW, Yoshida M, Guest BN, Hashizume R, Weaver ML, Wagner WR, **Brown BN**, Tobita K, Wearden PD. Urinary bladder matrix promotes site appropriate tissue formation following right ventricle outflow tract repair. *Organogenesis*. 2013 Jul-Sep;9(3):149-60. Epub 2013 Jun 25.

**Cui**

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*. 2016 May 27. pii: S0956-5663(16)30514-0. [Epub ahead of print]

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, Nabity JA, Nabity 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.

Weaver CL, LaRosa JM, Luo X, **Cui XT**. Electrically controlled drug delivery from graphene oxide nanocomposite films. *ACS Nano*. 2014 Feb 25;8(2):1834-43. Epub 2014 Jan 17.

Zhang L, Zhang F, Weng Z, Brown BN, Yan H, Ma XM, Vosler PS, Badylak SF, Dixon CE, **Cui XT**, Chen J. Effect of an inductive hydrogel composed of urinary bladder matrix upon functional recovery following traumatic brain injury. *Tissue Engineering Part A*. 2013 2013 Sep;19(17-18):1909-18. May 31.

**A Donnenberg**

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.

Harbuzariu A, Kim J, Meyer EM, **Donnenberg AD**, Tillman BW. CD34 affinity pheresis attenuates a surge among circulating progenitor cells following vascular injury. *Journal of Vascular Surgery*. 2014 Jun;59(6):1686-94. Epub 2013 Jul 19.

Park TS, Donnenberg VS, **Donnenberg AD**, Zambidis ET, Zimmerlin L. Dynamic Interactions Between Cancer Stem Cells And Their Stromal Partners. *Current Pathobiology Reports*. 2014 Mar 1;2(1):41-52.

Zimmerlin L, Park TS, Zambidis ET, Donnenberg VS, **Donnenberg AD**. Mesenchymal stem cell secretome and regenerative therapy after cancer. *Biochimie*. 2013 Dec;95(12):2235-45. 2013 Jun 5.

Bustos ML, Huleihel L, Meyer EM, **Donnenberg AD**, Donnenberg VS, Sciurba JD, Mroz L, McVerry BJ, Ellis BM, Kaminski N, Rojas M. Activation of human mesenchymal stem cells impacts their therapeutic abilities in lung injury by increasing interleukin (IL)-10 and IL-1RN levels. *Stem Cells Translational Medicine*. 2013 Nov;2(11):884-95. Epub 2013 Oct 2.

Philips BJ, Grahovac TL, Valentin JE, Chung CW, Bliley JM, Pfeifer ME, Roy SB, Dreifuss S, Kelmendi-Doko A, Kling RE, Ravuri SK, Marra KG, Donnenberg VS, **Donnenberg AD**, Rubin JP. Prevalence of Endogenous CD34+ Adipose Stem Cells Predicts Human Fat Graft Retention in a Xenograft Model. *Plastic and Reconstructive Surgery*. 2013 Oct;132(4):845-58. 2013 Jun 18.

**V Donnenberg**

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.

Park TS, **Donnenberg VS**, Donnenberg AD, Zambidis ET, Zimmerlin L. Dynamic Interactions Between Cancer Stem Cells And Their Stromal Partners. *Current Pathobiology Reports*. 2014 Mar 1;2(1):41-52.

Zimmerlin L, Park TS, Zambidis ET, **Donnenberg VS**, Donnenberg AD. Mesenchymal stem cell secretome and regenerative therapy after cancer. *Biochimie*. 2013 Dec;95(12):2235-45. 2013 Jun 5.

Bustos ML, Huleihel L, Meyer EM, Donnenberg AD, **Donnenberg VS**, Sciurba JD, Mroz L, McVerry BJ, Ellis BM, Kaminski N, Rojas M. Activation of human mesenchymal stem cells impacts their therapeutic abilities in lung injury by increasing interleukin (IL)-10 and IL-1RN levels. *Stem Cells Translational Medicine*. 2013 Nov;2(11):884-95. Epub 2013 Oct 2.

Philips BJ, Grahovac TL, Valentin JE, Chung CW, Bliley JM, Pfeifer ME, Roy SB, Dreifuss S, Kelmendi-Doko A, Kling RE, Ravuri SK, Marra KG, **Donnenberg VS**, Donnenberg AD, Rubin JP. Prevalence of Endogenous CD34+ Adipose Stem Cells Predicts Human Fat Graft Retention in a Xenograft Model. *Plastic and Reconstructive Surgery*. 2013 Oct;132(4):845-58. 2013 Jun 18.

**Duncan**

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.

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

**Federspiel**

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**. Veno-venous 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.

Kimmel JD, Arazawa DT, Ye SH, Shankarraman V, Wagner WR, **Federspiel WJ**. Carbonic anhydrase immobilized on hollow fiber membranes using glutaraldehyde activated chitosan for artificial lung applications. *Journal of Materials Science. Materials Medicine*. 2013 Nov;24(11):2611-21. Epub 2013 Jul 26.

**Fontes**

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, Sebagh 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, Koshiba 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 Jun 7. [Epub ahead of print]

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 Apr 29. [Epub ahead of print]

Komori J, Deward AD, Gramignoli R, Strom SC, **Fontes P**, Lagasse E. Potential Barriers to Human Hepatocyte Transplantation in MUP-uPAtg (+/+)Rag2-/-γC-/- Mice. *Cell Transplantation*. 2014;23(12):1537-44. 2013 Aug 30.

DiMartini A, Cruz RJ Jr, Dew MA, Myaskovsky L, Goodpaster B, Fox K, Kim KH, **Fontes P**. Muscle mass predicts outcomes following liver transplantation. *Liver Transplantation*. 2013 Nov;19(11):1172-80.

Nachmany I, Dvorchik I, Devera M, **Fontes P**, Demetris A, Humar A, Marsh JW. A validated model for predicting outcome after liver transplantation: implications on transplanting the extremely sick. *Transplant International*. 2013 Nov;26(11):1108-15. Epub 2013 Sep 19.

**Fox**

Sauer V, Tchaikovskaya T, Wang X, Li Y, Zhang W, Tar K, Polgar Z, Ding J, Guha C, **Fox IJ**, 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 Jun 9. [Epub ahead of print]

Chen Y, Li Y, Wang X, Zhang W, Sauer V, Chang CJ, Han B, Tchaikovskaya T, Avsar Y, Tafaleng E, Madhusudana Girija S, Tar K, Polgar Z, Strom S, Bouhassira EE, Guha C, **Fox IJ**, 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 IJ**. Induced pluripotent stem cells model personalized variations in liver disease resulting from α1-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 IJ**. 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 IJ**, 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 IJ**, 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 IJ**. Cell and tissue engineering for liver disease. *Science Translational Medicine*. 2014 Jul 16;6(245):245sr2. Review.

Nishikawa T, Bellance N, Damm A, Bing H, Zhu Z, Handa K, Yovchev MI, Sehgal V, Moss TJ, Oertel M, Ram PT, Pipinos II, Soto-Gutierrez A, **Fox IJ**, Nagrath D. A switch in the source of ATP production and a loss in capacity to perform glycolysis are hallmarks of hepatocyte failure in advance liver disease. *Journal of Hepatology*. 2014 Jun;60(6):1203-11. Epub 2014 Feb 26.

Gramignoli R, Tahan V, Dorko K, Venkataramanan R, **Fox IJ**, Ellis EC, Vosough M, Strom SC. Rapid-and-Sensitive Assessment of Human Hepatocyte Functions. *Cell Transplantation*. 2014;23(12):1545-56. 2014 Apr 4.

Mazariegos G, Shneider B, Burton B, **Fox IJ**, Hadzic N, Kishnani P, Morton DH, McIntire S, Sokol RJ, Summar M, White D, Chavanon V, Vockley J. Liver transplantation for pediatric metabolic disease. *Molecular Genetics and Metabolism*. 2014 Apr;111(4):418-27. Epub 2014 Jan 17.

Yannam GR, Han B, Setoyama K, Yamamoto T, Ito R, Brooks JM, Guzman-Lepe J, Galambos C, Fong JV, Deutsch M, Quader MA, Yamanouchi K, Kabarriti R, Mehta K, Soto-Gutierrez A, Roy-Chowdhury J, Locker J, Abe M, Enke CA, Baranowska-Kortylewicz J, Solberg TD, Guha C, **Fox IJ**. A nonhuman primate model of human radiation-induced venocclusive liver disease and hepatocyte injury. *International Journal of Radiation Oncology, Biology, Physics*. 2014 Feb 1;88(2):404-11. Epub 2013 Dec 5.

Dreyzin A, Barnato AE, Soltys KA, Farris C, Sada R, Haberman K, **Fox IJ**. Parent perspectives on decisions to participate in a phase I hepatocyte transplant trial. *Pediatric Transplantation*. 2014 Feb;18(1):112-9. Epub 2013 Nov 20.

Hansel MC, Gramignoli R, Blake W, Davila J, Skvorak K, Dorko K, Tahan V, Lee BR, Tafaleng E, Guzman-Lepe J, Soto-Gutierrez A, **Fox IJ**, Strom SC. Increased Reprogramming of Human Fetal Hepatocytes Compared With Adult Hepatocytes in Feeder-Free Conditions. *Cell Transplantation*. 2014 Jan;23(1):27-38. 2013 Feb 4.

Gramignoli R, Dorko K, Tahan V, Skvorak KJ, Ellis E, Jorns C, Ericzon BG, **Fox IJ**, Strom SC. Hypothermic storage of human hepatocytes for transplantation. *Cell Transplantation*. 2014;23(9):1143-51.

**Fox IJ**, Duncan SA. Engineering liver tissue from induced pluripotent stem cells: a first step in generating new organs for transplantation? *Hepatology*. 2013 Dec;58(6):2198-201. Epub 2013 Oct 31.

Gramignoli R, Tahan V, Dorko K, Skvorak KJ, Hansel MC, Zhao W, Venkataramanan R, Ellis EC, Jorns C, Ericzon BG, Rosenborg S, Kuiper R, Soltys KA, Mazariegos GV, **Fox IJ**, Wilson EM, Grompe M, Strom SC. New potential cell source for hepatocyte transplantation: discarded livers from metabolic disease liver transplants. *Stem Cell Research*. 2013 Jul;11(1):563-73. 2013 Mar 27.

**Fu**

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 Am*. 2016 Jun 15;98(12):1001-6.

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*. 2016 Jun 8. [Epub ahead of print]

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*. 2016 Jun 2. [Epub ahead of print]

**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.

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 May 14. pii: S0749-8063(16)00258-9. [Epub ahead of print]

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*. 2016 May 6. [Epub ahead of print]

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*. 2016 Apr 16. [Epub ahead of print]

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*. 2016 Apr 7. [Epub ahead of print]

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.

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*. 2016 Feb 11.

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, Rahnemai-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, Rahnemai-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.

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*. 2015 Dec 28.

Guenther D, Irarrázaval 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, Rahnemai-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, Rahnemai-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, Rahnemai-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.

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*. 2015 Mar 25. [Epub ahead of print]

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*. 2015 Mar 7. [Epub ahead of print]

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*. 2015 Mar 7. [Epub ahead of print]

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*. 2015 Mar 1. [Epub ahead of print]

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, Rahnemai-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.

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*. 2015 Feb 4. [Epub ahead of print]

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.

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*. 2014 Dec 17. [Epub ahead of print]

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*. 2014 Dec 4. [Epub ahead of print]

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*. 2014 Dec 3. [Epub ahead of print]

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, Casagranda 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.

Seo YJ, Yoo YS, Kim YS, Jang SW, Song SY, Hyun YS, Smolinski P, **Fu FH**. The effect of notchplasty on tunnel widening in anterior cruciate ligament reconstruction. *Arthroscopy*. 2014 Jun;30(6):739-46. Epub 2014 Apr 13.

Miyawaki M, Hensler D, Illingworth KD, Irrgang JJ, **Fu FH**. Signal intensity on magnetic resonance imaging after allograft double-bundle anterior cruciate ligament reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2014 May;22(5):1002-8. Epub 2014 Jan 29.

Desai N, Björnsson H, Musahl V, Bhandari M, Petzold M, **Fu FH**, Samuelsson K. Anatomic single- versus double-bundle ACL reconstruction: a meta-analysis. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2014 May;22(5):1009-23. Epub 2013 Dec 17.

Hensler D, Miyawaki M, Illingworth KD, van Eck CF, **Fu FH**. Graft size after anterior cruciate ligament reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2014 May;22(5):995-1001. Epub 2013 Sep 1.

van Diek FM, Wolf MR, Murawski CD, van Eck CF, **Fu FH**. Knee morphology and risk factors for developing an anterior cruciate ligament rupture: an MRI comparison between ACL-ruptured and non-injured knees. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2014 May;22(5):987-94. Epub 2013 Jul 6.

Hofbauer M, Muller B, Murawski CD, van Eck CF, **Fu FH**. The concept of individualized anatomic anterior cruciate ligament (ACL) reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2014 May;22(5):979-86. Epub 2013 Jun 6.

Asai S, Maeyama A, Hoshino Y, Goto B, Celentano U, Moriyama S, Smolinski P, **Fu FH**. A comparison of dynamic rotational knee instability between anatomic single-bundle and over-the-top anterior cruciate ligament reconstruction using triaxial accelerometry. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2014 May;22(5):972-8. Epub 2013 Apr 9.

Tantisricharoenkul G, Linde-Rosen M, Araujo P, Zhou J, Smolinski P, **Fu FH**. Anterior cruciate ligament: an anatomical exploration in humans and in a selection of animal species. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2013 Mar 8.

Murawski CD, van Eck CF, Irrgang JJ, Tashman S, **Fu FH**. Operative treatment of primary anterior cruciate ligament rupture in adults. *Journal of Bone and Joint Surgery American Volume*. 2014 Apr 16;96(8):685-94. Review.

Iriuchishima T, Ryu K, Aizawa S, Yorifuji H, Ohyama T, **Fu FH**. Anterior cruciate ligament deterioration correlates with patella osteoarthritis. *International Orthopaedics*. 2014 Apr;38(4):741-6. Epub 2013 Oct 17.

Atesok K, **Fu FH**, Wolf MR, Ochi M, Jazrawi LM, Doral MN, Lubowitz JH, Rodeo SA. Augmentation of tendon-to-bone healing. *Journal of Bone and Joint Surgery American Volume*. 2014 Mar 19;96(6):513-21. Review.

Hofbauer M, Murawski CD, Muller B, van Eck CF, **Fu FH**. Revision surgery after primary double-bundle ACL reconstruction: AAOS exhibit selection. *Journal of Bone and Joint Surgery American Volume*. 2014 Feb 19;96(4):e30.

Collins MW, Kontos AP, Reynolds E, Murawski CD, **Fu FH**. A comprehensive, targeted approach to the clinical care of athletes following sport-related concussion. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2014 Feb;22(2):235-46. Epub 2013 Dec 12.

Iriuchishima T, Yorifuji H, Aizawa S, Tajika Y, Murakami T, **Fu FH**. Evaluation of ACL mid-substance cross-sectional area for reconstructed autograft selection. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2014 Jan;22(1):207-13. 2012 Dec 22.

Hensler D, Working ZM, Illingworth KD, Tashman S, **Fu FH**. Correlation between femoral tunnel length and tunnel position in ACL reconstruction. *Journal of Bone and Joint Surgery American Volume*. 2013 Nov 20;95(22):2029-34.

Zhuang YH, Lin J, **Fu FH**, Cai ZD, Huang HM, Zheng HP. The posterolateral mid-forearm perforator flap: Anatomical study and clinical application. *Microsurgery*. 2013 Nov;33(8):638-45. 2013 Sep 18.

Andernord D, Karlsson J, Musahl V, Bhandari M, **Fu FH**, Samuelsson K. Timing of surgery of the anterior cruciate ligament. *Arthroscopy*. 2013 Nov;29(11):1863-71. Epub 2013 Sep 18. Review.

van Eck CF, Gravare-Silbernagel K, Samuelsson K, Musahl V, van Dijk CN, Karlsson J, Irrgang JJ, **Fu FH**. Evidence to support the interpretation and use of the Anatomic Anterior Cruciate Ligament Reconstruction Checklist. *Journal of Bone and Joint Surgery American Volume*. 2013 Oct 16;95(20):e153.

Yang Y, Zhang J, Qian Y, Dong S, Huang H, Boada FE, **Fu FH**, Wang JH. Superparamagnetic Iron Oxide is Suitable to Label Tendon Stem Cells and Track Them In Vivo with MR Imaging. *Annals of Biomedical Engineering*. 2013 Oct;41(10):2109-19. Epub 2013 Apr 3.

Hoshino Y, **Fu FH**, Irrgang JJ, Tashman S. Can joint contact dynamics be restored by anterior cruciate ligament reconstruction? *Clinical Orthopaedics and Related Research*. 2013 Sep;471(9):2924-31.

Bowman KF Jr, Muller B, Middleton K, Fink C, Harner CD, **Fu FH**. Progression of patellar tendinitis following treatment with platelet-rich plasma: case reports. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2013 Sep;21(9):2035-9. Epub 2013 Jun 1.

Hofbauer M, Muller B, Murawski CD, Baraga M, van Eck CF, **Fu FH**. Strategies for revision surgery after primary double-bundle anterior cruciate ligament (ACL) reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2013 Sep;21(9):2072-80. Epub 2013 Apr 12.

van Eck CF, Loopik M, van den Bekerom MP, **Fu FH**, Kerkhoffs GM. Methods to diagnose acute anterior cruciate ligament rupture: a meta-analysis of instrumented knee laxity tests. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2013 Sep;21(9):1989-97. Epub 2012 Oct 17.

Nagai T, Heebner NR, Sell TC, Nakagawa T, **Fu FH**, Lephart SM. Restoration of sagittal and transverse plane proprioception following anatomic double-bundle ACL reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2013 Sep;21(9):2048-56. Epub 2012 Aug 29.

Keklikci K, Yapici C, Kim D, Linde-Rosen M, Smolinski P, **Fu FH**. The effect of notchplasty in anterior cruciate ligament reconstruction: a biomechanical study in the porcine knee. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2013 Aug;21(8):1915-21. Epub 2012 Dec 16.

van Eck CF, Loopik M, van den Bekerom MP, **Fu FH**, Kerkhoffs GM. Methods to diagnose acute anterior cruciate ligament rupture: a meta-analysis of instrumented knee laxity tests. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2013 Aug;21(8):1895-903. Epub 2012 Oct 17.

Mifune Y, Matsumoto T, Takayama K, Terada S, Sekiya N, Kuroda R, Kurosaka M, **Fu FH**, Huard J. Tendon graft revitalization using adult anterior cruciate ligament (ACL)-derived CD34+ cell sheets for ACL reconstruction. *Biomaterials*. 2013 Aug;21(8):1895-903. Epub 2013 Apr 28.

Araujo P, van Eck CF, Torabi M, **Fu FH**. How to optimize the use of MRI in anatomic ACL reconstruction. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2013 Jul;21(7):1495-501. Epub 2012 Aug 15.

**Gerlach**

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, Knobeloch 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.

Stachelscheid H, Wulf-Goldenberg A, Eckert K, Jensen J, Edsbagge J, Björquist P, Rivero M, Strehl R, Jozefczuk J, Prigione A, Adjaye J, Urbaniak T, Bussmann P, Zeilinger K, **Gerlach JC**. Teratoma formation of human embryonic stem cells in three-dimensional perfusion culture bioreactors. *Journal of Tissue Engineering and Regenerative Medicine*. 2013 Sep;7(9):729-41. Epub 2012 Mar 21. Mar 27.

**Gorantla**

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 Allotransplantation. *PLoS One*. 2016 Jun 7;11(6):e0156149.

Klein HJ, Schanz U, Hivelin M, Waldner M, Koljonen V, Guggenheim M, Giovanoli P, **Gorantla VS**, Fehr T, Plock JA. Sensitization and desensitization of burn patients as potential candidates for vascularized composite allotransplantation. *Burns*. 2016 Mar;42(2):246-57. Review.

Breidenbach WC, Meister EA, Becker GW, Turker T, **Gorantla VS**, Hassan K, Kaplan B. A Statistical Comparative Assessment of Face and Hand Transplantation Outcomes to Determine Whether Either Meets the Standard of Care Threshold. *Plastic and Reconstructive Surgery*. 2016 Jan;137(1):214e-222e. Review.

Breidenbach WC, Meister EA, Turker T, Becker GW, **Gorantla VS**, Levin LS. A Methodology for Determining Standard of Care Status for a New Surgical Procedure: Hand Transplantation. *Plastic and Reconstructive Surgery*. 2016 Jan;137(1):367-73. Review.

Londono R, **Gorantla VS**, Badylak SF. Emerging Implications for Extracellular Matrix-Based Technologies in Vascularized Composite Allotransplantation. *Stem Cells International*. 2016;2016:1541823. Review.

Schweizer R, **Gorantla VS**, Plock JA. Premise and promise of mesenchymal stem cell-based therapies in clinical vascularized composite allotransplantation. *Current Opinion in Organ Transplantation*. 2015 Dec;20(6):608-14. Review.

Fanzio PM, Cheng MH, Samcam I, Lin YT, **Gorantla V**, Lee BT, Singhal D. High-Volume Hydrodissection: Assessment of Deep Inferior Epigastric Perforator Flap Perfusion Using Laser Doppler. *Annals of Plastic Surgery*. 2015 Dec;75(6):652-6.

Raval SB, Zhao T, Krishnamurthy N, Ibrahim TS, **Gorantla VS**. RF System for Ultra-High Field Upper Extremity Imaging. *Plastic and Reconstructive Surgery*. 2015 Oct;136(4 Suppl):81.

Lawson SD, Fries CA, Wang LC, **Gorantla VS**, Davis MR. Locally Administered Immunomodulation for the Maintenance of Vascularized Composite Allotransplants. *Plastic and Reconstructive Surgery*. 2015 Oct;136(4 Suppl):78.

Raval SB, Zhao T, Zhao Y, Ibrahim TS, **Gorantla VS**. Upper Extremity Ultra-High Field MR Imaging of Bilateral Hand Transplant Patient: Case Report (VCA). *Plastic and Reconstructive Surgery*. 2015 Oct;136(4 Suppl):29-30.

Raval SB, Zhao T, Krishnamurthy N, Ibrahim TS, **Gorantla VS**. Exploring Peripheral Nerve, Macro and Micro-Vasculature Imaging Applications at Ultra-High Field MRI. *Plastic and Reconstructive Surgery*. 2015 Oct;136(4 Suppl):20.

Plock JA, Schnider JT, Zhang W, Schweizer R, Tsuji W, Kostereva N, Fanzio PM, Ravuri S, Solari MG, Cheng HY, Rubin PJ, 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.

Öksüz S, **Gorantla VS**. Comments on "reflectance confocal microscopy as a useful diagnostic tool for monitoring of skin containing vascularized allograft rejection: A preliminary study on rats". *Microsurgery*. 2015 Aug 6.

Kamat P, Schweizer R, Kaenel P, Salemi S, Calcagni M, Giovanoli P, **Gorantla VS**, Eberli D, Andres AC, Plock JA. Human Adipose-Derived Mesenchymal Stromal Cells May Promote Breast Cancer Progression and Metastatic Spread. *Plastic and Reconstructive Surgery*. 2015 Jul;136(1):76-84.

Jindal R, Unadkat J, Zhang W, Zhang D, Ng TW, Wang Y, Jiang J, Lakkis F, Rubin P, Lee WP, **Gorantla VS**, Zheng XX. Spontaneous resolution of acute rejection and tolerance induction with IL-2 fusion protein in vascularized composite allotransplantation. *American Journal of Transplantation*. 2015 May;15(5):1231-40. Epub 2015 Feb 12.

Eren F, Öksüz S, Küçükodaci Z, Kendİrlİ MT, Cesur C, Alarçİn E, İrem Bektaş E, Karagöz H, Kerİmoğlu O, Köse GT, Ülkür E, **Gorantla V**. Targeted mesenchymal stem cell and vascular endothelial growth factor strategies for repair of nerve defects with nerve tissue implanted autogenous vein graft conduits. *Microsurgery*. 2015 Apr 13. [Epub ahead of print]

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.

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.

Zhang W, Yang Y, Li Y, Washington KM, **Gorantla VS**, Zheng XX, Solari MG. Abstract 101: Intrathymic in Vivo Two-photon Microscopy Reveals the Interaction of Donor Bone Marrow-Derived Dendritic Cells and Host Thymocytes in a Model Of VCA Central Tolerance. *Plastic and Reconstructive Surgery*. 2014 Mar;133(3 Suppl):116.

Roth ES, Buck DG, **Gorantla VS**, Losee JE, Foust DE, Britton CA. The role of imaging in patient selection, preoperative planning, and postoperative monitoring in human upper extremity allotransplantation. *Journal of Transplantation*. 2014;2014:169546. Epub 2014 Mar 27.

Lin CH, Zhang W, Ng TW, Zhang D, Jiang J, Pulikkottil B, Lakkis F, **Gorantla VS**, Lee WP, Brandacher G, Zheng XX. Vascularized osteomyocutaneous allografts are permissive to tolerance by induction-based immunomodulatory therapy. *American Journal of Transplantation*. 2013 Aug;13(8):2161-8. Epub 2013 May 29.

**Hebda**

Ingle JW, Helou LB, Li NY, **Hebda PA**, Rosen CA, Abbott KV. Role of steroids in acute phonotrauma: A basic science investigation. *Laryngoscope*. 2014 Apr;124(4):921-7. Epub 2014 Jan 28.

**Hebda PA**. The Wound Healing Society celebrates 25 years. *Wound Repair and Regeneration*. 2013 Nov-Dec;21(6):771.

**Kameneva**

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.

Olia SE, Herbertson LH, Malinauskas RA, **Kameneva MV**. A Reusable, Compliant, Small Volume Blood Reservoir for In Vitro Hemolysis Testing. *Artificial Organs*. 2016 Apr 18.

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.

Brands J, Kliner D, Lipowsky HH, **Kameneva MV**, Villanueva FS, Pacella JJ. New insights into the microvascular mechanisms of drag reducing polymers: effect on the cell-free layer. *PLoS One*. 2013 Oct 4;8(10):e77252. eCollection 2013.

**Kormos**

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. Review.

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.

Woolley JR, Teuteberg JJ, Bermudez CA, Bhama JK, Lockard KL, **Kormos RL**, Wagner WR. Temporal leukocyte numbers and granulocyte activation in pulsatile and rotary ventricular assist device patients. *Artificial Organs*. 2014 Jun;38(6):447-55. Epub 2013 Oct 29.

Kirklin JK, Naftel DC, Pagani FD, **Kormos RL**, Stevenson LW, Blume ED, Miller MA, Timothy Baldwin J, Young JB. Sixth INTERMACS annual report: a 10,000-patient database. *Journal of Heart and Lung Transplantation*. 2014 Jun;33(6):555-64. Epub 2014 Apr 21.

Chivukula S, Shullo MA, **Kormos RL**, Bermudez CA, McNamara DM, Teuteberg JJ. Cancer-free survival following alemtuzumab induction in heart transplantation. *Transplantation Proceedings*. 2014 Jun;46(5):1481-8

Jorde UP, Kushwaha SS, Tatooles AJ, Naka Y, Bhat G, Long JW, Horstmanshof DA, **Kormos RL**, Teuteberg JJ, Slaughter MS, Birks EJ, Farrar DJ, Park SJ; HeartMate II Clinical Investigators. Results of the destination therapy post-food and drug administration approval study with a continuous flow left ventricular assist device: a prospective study using the INTERMACS registry (Interagency Registry for Mechanically Assisted Circulatory Support). *Journal of the Americal College of Cardiology*. 2014 May 6;63(17):1751-7. Epub 2014 Mar 5.

**Kormos RL**. The right heart failure dilemma in the era of left ventricular assist devices. *Journal of Heart and Lung Transplantation*. 2014 Feb;33(2):134-5. Epub 2013 Dec 27.

Lampert BC, Eckert C, Weaver S, Scanlon A, Lockard K, Allen C, Kunz N, Bermudez C, Bhama JK, Shullo MA, **Kormos RL**, Dew MA, Teuteberg JJ. Blood pressure control in continuous flow left ventricular assist devices: efficacy and impact on adverse events. *Annals of Thoracic Surgery*. 2014 Jan;97(1):139-46. Epub 2013 Sep 25.

Najjar SS, Slaughter MS, Pagani FD, Starling RC, McGee EC, Eckman P, Tatooles AJ, Moazami N, **Kormos RL**, Hathaway DR, Najarian KB, Bhat G, Aaronson KD, Boyce SW; HVAD Bridge to Transplant ADVANCE Trial Investigators. An analysis of pump thrombus events in patients in the HeartWare ADVANCE bridge to transplant and continued access protocol trial. *Journal of Heart and Lung Transplantation*. 2014 Jan;33(1):23-34. Epub 2013 Dec 12.

Kirklin JK, Naftel DC, **Kormos RL**, Pagani FD, Myers SL, Stevenson LW, Acker MA, Goldstein DL, Silvestry SC, Milano CA, Timothy Baldwin J, Pinney S, Eduardo Rame J, Miller MA. Interagency Registry for Mechanically Assisted Circulatory Support (INTERMACS) analysis of pump thrombosis in the HeartMate II left ventricular assist device. *Journal of Heart and Lung Transplantation*. 2014 Jan;33(1):12-22. Epub 2013 Nov 27.

Kirklin JK, Naftel DC, **Kormos RL**, Pagani FD, Myers SL, Stevenson LW, Givertz MM, Young JB. Quantifying the effect of cardiorenal syndrome on mortality after left ventricular assist device implant. *Journal of Heart and Lung Transplantation*. 2013 Dec;32(12):1205-13. Epub 2013 Oct 8.

Teuteberg JJ, Stewart GC, Jessup M, **Kormos RL**, Sun B, Frazier OH, Naftel DC, Stevenson LW. Implant strategies change over time and impact outcomes: insights from the INTERMACS (Interagency Registry for Mechanically Assisted Circulatory Support). *JACC Heart Failure*. 2013 Oct;1(5):369-78. Epub 2013 Sep 11.

Holman WL, Naftel DC, Eckert CE, **Kormos RL**, Goldstein DJ, Kirklin JK. Durability of left ventricular assist devices: Interagency Registry for Mechanically Assisted Circulatory Support (INTERMACS) 2006 to 2011. *Journal of Thoracic and Cardiovascular Surgery*. 2013 Aug;146(2):437-41.e1. Epub 2013 Mar 13.

**Lagasse**

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 SF. 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.

DeWard AD, Komori J, **Lagasse E**. Ectopic transplantation sites for cell-based therapy. *Current Opinion in Organ Transplantation*. 2014 Apr;19(2):169-74. Review.

Francipane MG, **Lagasse E**. mTOR pathway in colorectal cancer: an update. Oncotarget. 2014 Jan 15;5(1):49-66.

Komori J, Deward AD, Gramignoli R, Strom SC, Fontes P, **Lagasse E**. Potential Barriers to Human Hepatocyte Transplantation in MUP-uPAtg (+/+)Rag2-/-γC-/- Mice. *Cell Transplantation*. 2014;23(12):1537-44. Epub 2013 Aug 30.

Francipane MG, **Lagasse E**. Selective targeting of human colon cancer stem-like cells by the mTOR inhibitor Torin-1. *Oncotarget*. 2013 Nov;4(11):1948-62.

Hickey RD, Galivo F, Schug J, Brehm MA, Haft A, Wang Y, Benedetti E, Gu G, Magnuson MA, Shultz LD, **Lagasse E**, Greiner DL, Kaestner KH, Grompe M. Generation of islet-like cells from mouse gall bladder by direct ex vivo reprogramming. *Stem Cell Research*. 2013 Jul;11(1):503-15. Epub 2013 Feb 18.

**Little**

Roy A, Jhunjhunwala 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, Biguetti 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 Endodonics*. 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 in 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.

Rothstein SN, Huber KD, Sluis-Cremer N, **Little SR**. In vitro characterization of a sustained-release formulation for enfuvirtide. *Antimicrobial Agents and Chemotherapy*. 2014 Mar;58(3):1797-9. Epub 2013 Dec 23.

Mealy JE, Fedorchak MV, **Little SR**. In vitro characterization of a controlled-release ocular insert for delivery of brimonidine tartrate. *Acta Biomaterialia*. 2014 Jan;10(1):87-93. Epub 2013 Sep 28.

Glowacki AJ, Yoshizawa S, Jhunjhunwala S, Vieira AE, Garlet GP, Sfeir C, **Little SR**. Prevention of inflammation-mediated bone loss in murine and canine periodontal disease via recruitment of regulatory lymphocytes. *Proceedings of the National Academy of Sciences-USA*. 2013 Nov 12;110(46):18525-30. Epub 2013 Oct 28.

Jhunjhunwala S, Chen LC, Nichols EE, Thomson AW, Raimondi G, **Little SR**. All-trans retinoic acid and rapamycin synergize with transforming growth factor-β1 to induce regulatory T cells but confer different migratory capacities. *Journal of Leukocyte Biology*. 2013 Nov;94(5):981-9. Epub 2013 Jul 29.

Kamalasanan K, Gottardi R, Tan S, Chen Y, Godugu B, Rothstein S, Balazs AC, Star A, **Little SR**. "Zero-dimensional" single-walled carbon nanotubes. *Angewandte Chemie (International Edition-English)*. 2013 Oct 18;52(43):11308-12. Epub 2013 Sep 5.

**Marra**

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-1α. *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.

Ihunnah CA, Wada T, Philips BJ, Ravuri SK, Gibbs RB, Kirisci L, Rubin JP, **Marra KG**, Xie W. Estrogen sulfotransferase/SULT1E1 promotes human adipogenesis. *Molecular and Cellular Biology*. 2014 May;34(9):1682-94. Epub 2014 Feb 24.

Philips BJ, **Marra KG**, Rubin JP. Healing of grafted adipose tissue: current clinical applications of adipose-derived stem cells for breast and face reconstruction. *Wound Repair and Regeneration*. 2014 May;22 Suppl 1:11-3.

Sivak WN, Bliley JM, **Marra KG**. Polymeric biomaterials for nerve regeneration: fabrication and implantation of a biodegradable nerve guide. *Methods in Molecular Biology*. 2014;1162:139-48.

Linkov F, Kokai L, Edwards R, Sheikh MA, Freese KE, **Marra KG**, Rubin JP. The role of adipose-derived stem cells in endometrial cancer proliferation. *Scandanavian Journal of Clinical and Laboratory Investigation. Supplmentum*. 2014;74(244):54-8.

Philips BJ, Grahovac TL, Valentin JE, Chung CW, Bliley JM, Pfeifer ME, Roy SB, Dreifuss S, Kelmendi-Doko A, Kling RE, Ravuri SK, **Marra KG**, Donnenberg VS, Donnenberg AD, Rubin JP. Prevalence of Endogenous CD34+ Adipose Stem Cells Predicts Human Fat Graft Retention in a Xenograft Model. *Plastic and Reconstructive Surgery*. 2013 Oct;132(4):845-58. Epub 2013 Jun 18.

Bellas E, **Marra KG**, Kaplan DL. Sustainable three-dimensional tissue model of human adipose tissue. *Tissue Engineering. Part C, Methods*. 2013 Sep 28;382(9898):1077-9. Epub 2013 Mar 12.

Lin YC, Oh SJ, **Marra KG**. Synergistic lithium chloride and glial cell line-derived neurotrophic factor delivery for peripheral nerve repair in a rodent sciatic nerve injury model. *Plastic and Reconstructive Surgery*. 2013 Aug;132(2):251e-262e.

Fisher C, Grahovac TL, Schafer ME, Shippert RD, **Marra KG**, Rubin JP. Comparison of harvest and processing techniques for fat grafting and adipose stem cell isolation. *Plastic and Reconstructive Surgery*. 2013 Aug;132(2):351-61.

**Monga**

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. Muc1 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-Sundd 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**. PDGFRα 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.

Fanti M, Singh S, Ledda-Columbano GM, Columbano A, **Monga SP**. Tri-iodothyronine induces hepatocyte proliferation by protein kinase A-dependent β-catenin activation in rodents. *Hepatology*. 2014 Jun;59(6):2309-20. Epub 2014 Apr 14.

**Monga SP**. Hepatic regenerative medicine: exploiting the liver's will to live. American Journal of Pathology. 2014 Feb;184(2):306-8.

Lee JM, Yang J, Newell P, Singh S, Parwani A, Friedman SL, Nejak-Bowen KN, **Monga SP**. β-Catenin signaling in hepatocellular cancer: Implications in inflammation, fibrosis, and proliferation. *Cancer Letters*. 2014 Feb 1;343(1):90-7. Epub 2013 Sep 23.

**Monga SP**. Role and regulation of β-catenin signaling during physiological liver growth. *Gene Expression*. 2014;16(2):51-62. Review.

Okabe H, Delgado E, Lee JM, Yang J, Kinoshita H, Hayashi H, Tsung A, Behari J, Beppu T, Baba H, **Monga SP**. Role of leukocyte cell-derived chemotaxin 2 as a biomarker in hepatocellular carcinoma. *PLoS One*. 2014 Jun 3;9(6):e98817. eCollection 2014.

Nejak-Bowen KN, **Monga SP**. Wnt drives stem cell-mediated repair response after hepatic injury. *Hepatology*. 2013 Nov;58(5):1847-50. Epub 2013 Sep 19.

Delgado E, Bahal R, Yang J, Lee JM, Ly DH, **Monga SP**. β-Catenin knockdown in liver tumor cells by a cell permeable gamma guanidine-based peptide nucleic acid. *Current Cancer Drug Targets*. 2013 Oct;13(8):867-78.

Criscimanna A, Duan LJ, Rhodes JA, Fendrich V, Wickline E, Hartman DJ, **Monga SP**, Lotze MT, Gittes GK, Fong GH, Esni F. PanIN-Specific Regulation of Wnt Signaling by HIF2α during

Early Pancreatic Tumorigenesis. *Cancer Research*. 2013 Aug 1;73(15):4781-90. Epub 2013 Jun 7.

Nakamura I, Fernandez-Barrena MG, Ortiz-Ruiz MC, Almada LL, Hu C, Elsawa SF, Mills LD, Romecin PA, Gulaid KH, Moser CD, Han JJ, Vrabel A, Hanse EA, Akogyeram NA, Albrecht JH, **Monga SP**, Sanderson SO, Prieto J, Roberts LR, Fernandez-Zapico ME. Activation of the Transcription Factor GLI1 by WNT Signaling Underlies the Role of SULFATASE 2 as a Regulator of Tissue Regeneration. *Journal of Biological Chemistry*. 2013 Jul 19;288(29):21389-98. Epub 2013 Jun 5.

**Rubin**

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-Kaijansinkko 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.

D'Amico RA, **Rubin JP**. Regenerative medicine and the future of plastic surgery. *Plastic and Reconstructive Surgery*. 2014 Jun;133(6):1511-2.

Ihunnah CA, Wada T, Philips BJ, Ravuri SK, Gibbs RB, Kirisci L, **Rubin JP**, Marra KG, Xie W. Estrogen sulfotransferase/SULT1E1 promotes human adipogenesis. *Molecular and Cellular Biology*. 2014 May;34(9):1682-94. Epub 2014 Feb 24.

Chung CW, Kling RE, Sivak WN, **Rubin JP**, Gusenoff JA. Risk factors for pannus formation in the post-bariatric surgery population. *Plastic and Reconstructive Surgery*. 2014 May;133(5):623e-627e.

Philips BJ, Marra KG, **Rubin JP**. Healing of grafted adipose tissue: current clinical applications of adipose-derived stem cells for breast and face reconstruction. *Wound Repair and Regeneration*. 2014 May;22 Suppl 1:11-3.

Sicari BM, **Rubin JP**, Dearth CL, Wolf MT, Ambrosio F, Boninger M, Turner NJ, Weber DJ, Simpson TW, Wyse A, Brown EH, Dziki JL, Fisher LE, Brown S, Badylak SF. An acellular biologic scaffold promotes skeletal muscle formation in mice and humans with volumetric muscle loss. *Science Translational Medicine*. 2014 Apr 30;6(234):234ra58.

Kokai LE, Marra K, Rubin JP. Adipose stem cells: biology and clinical applications for tissue repair and regeneration. *Translational Research*. 2014 Apr;163(4):399-408. Epub 2013 Dec 4. Review.

**Rubin JP**. Discussion: Megavolume autologous fat transfer: part I. Theory and principles. *Plastic and Reconstructive Surgery*. 2014 Mar;133(3):558-60.

**Rubin JP**, Hunstad JP, Polynice A, Gusenoff JA, Schoeller T, Dunn R, Walgenbach KJ, Hansen JE. A multicenter randomized controlled trial comparing absorbable barbed sutures versus conventional absorbable sutures for dermal closure in open surgical procedures. *Aesthetic Surgery Journal*. 2014 Feb;34(2):272-83. Epub 2014 Jan 13.

Kokai L, **Rubin JP**. Editor's invited commentary: Whitening effects of adipose-derived stem cells: an in vivo study. *Aesthetic Plastic Surgery*. 2014 Feb;38(1):234-5. Epub 2014 Feb 1.

Wakefield W, **Rubin JP**, Gusenoff JA. The life after weight loss program: a paradigm for plastic surgery care after massive weight loss. *Plastic Surgical Nursing*. 2014 Jan-Mar;34(1):4-9; quiz 10-1.

Linkov F, Kokai L, Edwards R, Sheikh MA, Freese KE, Marra KG, **Rubin JP**. The role of adipose-derived stem cells in endometrial cancer proliferation. *Scandanavian Journal of Clinical and Laboratory Investigation. Supplementum*. 2014;74(244):54-8.

**Rubin JP**, Smith D. Discussion: percutaneous aponeurotomy and lipofilling: a regenerative alternative to flap reconstruction? *Plastic and Reconstructive Surgery*. 2013 Nov;132(5):1291-2.

Philips BJ, Grahovac TL, Valentin JE, Chung CW, Bliley JM, Pfeifer ME, Roy SB, Dreifuss S, Kelmendi-Doko A, Kling RE, Ravuri SK, Marra KG, Donnenberg VS, Donnenberg AD, **Rubin JP**. Prevalence of endogenous CD34+ adipose stem cells predicts human fat graft retention in a xenograft model. *Plastic and Reconstructive Surgery*. 2013 Oct;132(4):845-58.

**Rubin JP**, Marra KG. Adipose stem cell therapy for soft tissue reconstruction. *Lancet*. 2013 Sep 28;382(9898):1077-9.

Fisher C, Grahovac TL, Schafer ME, Shippert RD, Marra KG, **Rubin JP**. Comparison of harvest and processing techniques for fat grafting and adipose stem cell isolation. *Plastic and Reconstructive Surgery*. 2013 Aug;132(2):351-61.

Kling RE, Mehrara BJ, Pusic AL, Young VL, Hume KM, Crotty CA, **Rubin JP**. Trends in autologous fat grafting to the breast: a national survey of the american society of plastic surgeons. *Plastic and Reconstructive Surgery*. 2013 Jul;132(1):35-46.

**Schwartz**

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.

Golub MD, Yu BM, **Schwartz AB**, Chase SM. Motor cortical control of movement speed with implications for brain-machine interface control. *Journal of Neurophysiology*. 2014 Jul 15;112(2):411-29. Epub 2014 Apr 9.

Velliste M, Kennedy SD, **Schwartz AB**, Whitford AS, Sohn JW, McMorland AJ. Motor cortical correlates of arm resting in the context of a reaching task and implications for prosthetic control. *Journal of Neuroscience*. 2014 Apr 23;34(17):6011-22.

Collinger JL, Kryger MA, Barbara R, Betler T, Bowsher K, Brown EH, Clanton ST, Degenhart AD, Foldes ST, Gaunt RA, Gyulai FE, Harchick EA, Harrington D, Helder JB, Hemmes T, Johannes MS, Katyal KD, Ling GS, McMorland AJ, Palko K, Para MP, Scheuermann J, **Schwartz AB**, Skidmore ER, Solzbacher F, Srikameswaran AV, Swanson DP, Swetz S, Tyler-Kabara EC, Velliste M, Wang W, Weber DJ, Wodlinger B, Boninger ML. Collaborative approach in the development of high-performance brain-computer interfaces for a neuroprosthetic arm: translation from animal models to human control. *Clinical and Translational Science*. 2014 Feb;7(1):52-9. Epub 2013 Aug 27.

Perel S, **Schwartz AB**, Ventura V. Single-snippet analysis for detection of postspike effects. *Neural Computation*. 2014 Jan;26(1):40-56. Epub 2013 Oct 8.

**Sfeir**

Francisconi CF, Vieira AE, Biguetti 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.

Anjomshoaa 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, Küchler 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, 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.

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.

Yoshizawa S, Brown A, Barchowsky A, **Sfeir C**. Magnesium ion stimulation of bone marrow stromal cells enhances osteogenic activity, simulating the effect of magnesium alloy degradation. *Acta Biomaterialia*. 2014 Jun;10(6):2834-42. Epub 2014 Feb 7.

Syed-Picard FN, Shah GA, Costello BJ, **Sfeir C**. Regeneration of periosteum by human bone marrow stromal cell sheets. *Journal of Oral and Maxillofacial Surgery*. 2014 Jun;72(6):1078-83. 2014 Feb 11.

**Sfeir C**, Fang PA, Jayaraman T, Raman A, Xiaoyuan Z, Beniash E. Synthesis of bone-like nanocomposites using multiphosphorylated peptides. *Acta Biomaterialia*. 2014 May;10(5):2241-9. Epub 2014 Jan 13.

Zaky SH, Hangadora CK, Tudares MA, Gao J, Jensen A, Wang Y, **Sfeir C**, Almarza AJ. Poly (glycerol sebacate) elastomer supports osteogenic phenotype for bone engineering applications. *Biomedical Materials*. 2014 Apr;9(2):025003. Epub 2014 Jan 31.

Syed-Picard FN, Ray HL Jr, Kumta PN, **Sfeir C**. Scaffoldless tissue-engineered dental pulp cell constructs for endodontic therapy. *Journal of Dental Research*. 2014 Mar;93(3):250-5. Epub 2014 Jan 8.

Zaky SH, Lee KW, Gao J, Jensen A, Close J, Wang Y, Almarza AJ, **Sfeir C**. Poly(Glycerol sebacate) elastomer: a novel material for mechanically loaded bone regeneration. *Tissue Engineering Part A*. 2014 Jan;20(1-2):45-53. Epub 2013 Oct 17.

Cui W, Beniash E, Gawalt E, Xu Z, **Sfeir C**. Biomimetic coating of magnesium alloy for enhanced corrosion resistance and calcium phosphate deposition. *Acta Biomaterialia*. 2013 Nov;9(10):8650-9. Epub 2013 Jun 29.

Otrock ZK, Saab J, Aftimos G, Nasr F, Farhat FS, Khairallah S, Abadjian G, Ghosn M, Sidani H, Ibrahim A, Tawil A, Ghorra C, Meguerian Z, Mokaddem W, Dayeh W, Salem Z, Chahine G, Bitar N, Mugharbel A, Makdessi J, Khater C, El Hajj M, Abi Gerges D, **Sfeir C**, Kattan J, Ibrahim K, Saade M, Sadek H, Mahfouz RA, Kharfan-Dabaja MA, Zaatari G, Bazarbachi A. A collaborative nationwide lymphoma study in Lebanon: incidence of various subtypes and analysis of associations with viruses. *Pathology Oncology Research*. 2013 Oct;19(4):715-22. Epub 2013 May 8.

**Shroff**

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, Gheorghiade 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.

Wong TC, Piehler KM, Kang IA, Kadakkal A, Kellman P, Schwartzman DS, Mulukutla SR, Simon MA, **Shroff SG**, Kuller LH, Schelbert EB. Myocardial extracellular volume fraction quantified by cardiovascular magnetic resonance is increased in diabetes and associated with mortality and incident heart failure admission. *European Heart Journal*. 2014 Mar;35(10):657-64. Epub 2013 Jun 11.

Parikh A, Patel D, McTiernan CF, Xiang W, Haney J, Yang L, Lin B, Kaplan AD, Bett GC, Rasmusson RL, **Shroff SG**, Schwartzman D, Salama G. Relaxin suppresses atrial fibrillation by reversing fibrosis and myocyte hypertrophy and increasing conduction velocity and sodium current in spontaneously hypertensive rat hearts. *Circulation Research*. 2013 Jul 19;113(3):313-21. Epub 2013 Jun 7.

**Stolz**

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, 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 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 (PGC1α) 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-Sundd 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, Deiuliis 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**, Pulinilkunnil 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 IJ. Induced pluripotent stem cells model personalized variations in liver disease resulting from α1-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-15Rα 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-κB 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 augmenter of 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 α1-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.

Qian W, Wang J, Roginskaya V, McDermott LA, Edwards RP, **Stolz DB**, Llambi F, Green DR, Van Houten B. Novel combination of mitochondrial division inhibitor 1 (mdivi-1) and platinum agents produces synergistic pro-apoptotic effect in drug resistant tumor cells. *Oncotarget*. 2014 Jun 30;5(12):4180-94.

Zhang Y, Ghazwani M, Li J, Sun M, **Stolz DB**, He F, Fan J, Xie W, Li S. MiR-29b inhibits collagen maturation in hepatic stellate cells through down-regulating the expression of HSP47 and lysyl oxidase. *Biochemical and Biophysical Research Communications*. 2014 Apr 18;446(4):940-4. Epub 2014 Mar 17.

Lavasani M, Thompson SD, Pollett JB, Usas A, Lu A, **Stolz DB**, Clark KA, Sun B, Péault B, Huard J. Human muscle-derived stem/progenitor cells promote functional murine peripheral nerve regeneration. *Journal of Clinical Investigation*. 2014 Apr 1;124(4):1745-56. Epub 2014 Mar 18.

Han J, Hou W, Goldstein LA, **Stolz DB**, Watkins SC, Rabinowich H. A Complex between Atg7 and Caspase-9: A novel mechanism of cross-regulation between autophagy and apoptosis. *Journal of Biological Chemistry*. 2014 Mar 7;289(10):6485-97. Epub 2013 Dec 20.

Lee S, Yamada T, Osako T, **Stolz DB**, Abe M, McCurry KR, Murase N, Kotani J, Nakao A. Recipient hyperbilirubinaemia protects cardiac graft in rat heterotopic heart transplantation. *European Journal of Cardiothoracic Surgery*. 2014 Mar;45(3):481-8. Epub 2013 Aug 14.

Zhao Y, Xiong Z, Lechner EJ, Klenotic PA, Hamburg BJ, Hulver M, Khare A, Oriss T, Mangalmurti N, Chan Y, Zhang Y, Ross MA, **Stolz DB**, Rosengart MR, Pilewski J, Ray P, Ray A, Silverstein RL, Lee JS. Thrombospondin-1 triggers macrophage IL-10 production and promotes resolution of experimental lung injury. *Mucosal Immunology*. 2014 Mar;7(2):440-8. Epub 2013 Sep 18.

Stewart RK, Dangi A, Huang C, Murase N, Kimura S, **Stolz DB**, Wilson GC, Lentsch AB, Gandhi CR. A novel mouse model of depletion of stellate cells clarifies their role in ischemia/reperfusion- and endotoxin-induced acute liver injury. *Journal of Hepatology*. 2014 Feb;60(2):298-305. Epub 2013 Sep 20.

Allen RA, Wu W, Yao M, Dutta D, Duan X, Bachman TN, Champion HC, **Stolz DB**, Robertson AM, Kim K, Isenberg JS, Wang Y. Nerve regeneration and elastin formation within poly(glycerol sebacate)-based synthetic arterial grafts one-year post-implantation in a rat model. *Biomaterials*. 2014 Jan;35(1):165-73. Epub 2013 Oct 9.

Avin KG, Coen PM, Huang W, **Stolz DB**, Sowa GA, Dubé JJ, Goodpaster BH, O'Doherty RM, Ambrosio F. Skeletal muscle as a regulator of the longevity protein, Klotho. *Frontiers in Physiology*. 2014 Jun 17;5:189. eCollection 2014.

Norris CA, He M, Kang LI, Ding MQ, Radder JE, Haynes MM, Yang Y, Paranjpe S, Bowen WC, Orr A, Michalopoulos GK, **Stolz DB**, Mars WM. Synthesis of IL-6 by hepatocytes is a normal response to common hepatic stimuli. *PLoS One*. 2014 Apr 24;9(4):e96053. eCollection 2014.

Bowen WC, Michalopoulos AW, Orr A, Ding MQ, **Stolz DB**, Michalopoulos GK. Development of a chemically defined medium and discovery of new mitogenic growth factors for mouse hepatocytes: mitogenic effects of FGF1/2 and PDGF. *PLoS One*. 2014 Apr 17;9(4):e95487. eCollection 2014.

Schwartzman D, Schoedel K, **Stolz DB**, Di Martino E. Morphological and mechanical examination of the atrial 'intima.' *Europace*. 2013 Nov;15(11):1557-61. Epub 2013 Apr 21.

Vyas AR, Hahm ER, Arlotti JA, Watkins S, **Stolz DB**, Desai D, Amin S, Singh SV. Chemoprevention of prostate cancer by d,l-sulforaphane is augmented by pharmacological inhibition of autophagy. *Cancer Research*. 2013 Oct 1;73(19):5985-95. Epub 2013 Aug 6.

Sitnick MT, Basantani MK, Cai L, Schoiswohl G, Yazbeck CF, Distefano G, Ritov V, DeLany JP, Schreiber R, **Stolz DB**, Gardner NP, Kienesberger PC, Pulinilkunnil T, Zechner R, Goodpaster BH, Coen P, Kershaw EE. Skeletal muscle triacylglycerol hydrolysis does not influence metabolic complications of obesity. *Diabetes*. 2013 Oct;62(10):3350-61. Epub 2013 Jul 8.

Chi Sabins N, Taylor JL, Fabian KP, Appleman LJ, Maranchie JK, **Stolz DB**, Storkus WJ. DLK1: a novel target for immunotherapeutic remodeling of the tumor blood vasculature. *Molecular Therapy*. 2013 Oct;21(10):1958-68. Epub 2013 Jul 30.

Zhang H, **Stolz DB**, Chalasani G, Thomson AW. Hepatic B cells are readily activated by Toll-like receptor-4 ligation and secrete less interleukin-10 than lymphoid tissue B cells. *Clinical and Experimental Immunology*. 2013 Sep;173(3):473-9.

Delorme-Axford E, Donker RB, Mouillet JF, Chu T, Bayer A, Ouyang Y, Wang T, **Stolz DB**, Sarkar SN, Morelli AE, Sadovsky Y, Coyne CB. Human placental trophoblasts confer viral resistance to recipient cells. *Proceedings of the National Academy of Sciences USA*. 2013 Jul 16;110(29):12048-53. Epub 2013 Jul 1.

Han J, Hou W, Lu C, Goldstein LA, **Stolz DB**, Watkins SC, Rabinowich H. Interaction between Her2 and Beclin-1 Proteins Underlies a New Mechanism of Reciprocal Regulation. *Journal of Biological Chemistry*. 2013 Jul 12;288(28):20315-25. Epub 2013 May 23.

Nace GW, Huang H, Klune JR, Eid RE, Rosborough BR, Korff S, Li S, Shapiro RA, **Stolz DB**, Sodhi CP, Hackam DJ, Geller DA, Billiar TR, Tsung A. Cellular-specific role of toll-like receptor 4 in hepatic ischemia-reperfusion injury in mice. *Hepatology*. 2013 Jul;58(1):374-87. Epub 2013 May 27.

**Tillman**

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.

Harbuzariu A, Kim J, Meyer EM, Donnenberg AD, **Tillman BW**. CD34 affinity pheresis attenuates a surge among circulating progenitor cells following vascular injury. *Journal of Vascular Surgery*. 2014 Jun;59(6):1686-94. Epub 2013 Jul 19.

**Tuan**

**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-1β/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, Schneppendahl 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-1β. *Molecular Pharmaceutics*. 2014 Jul 7;11(7):2203-12. Epub 2014 Jun 2.

Lv FJ, **Tuan RS**, Cheung KM, Leung VY. Concise review: the surface markers and identity of human mesenchymal stem cells. *Stem Cells*. 2014 Jun;32(6):1408-19.

Lozito TP, Jackson WM, Nesti LJ, **Tuan RS**. Human mesenchymal stem cells generate a distinct pericellular zone of MMP activities via binding of MMPs and secretion of high levels of TIMPs. *Matrix Biology*. 2014 Feb;34:132-43. Epub 2013 Oct 16.

Boyette LB, Creasey OA, Guzik L, Lozito T, **Tuan RS**. Human bone marrow-derived mesenchymal stem cells display enhanced clonogenicity but impaired differentiation with hypoxic preconditioning. *Stem Cells Translational Medicine*. 2014 Feb;3(2):241-54. Epub 2014 Jan 16.

Boyette LB, **Tuan RS**. Adult Stem Cells and Diseases of Aging. *Journal of Clinical Medicine*. 2014 Jan 21;3(1):88-134.

Bobick BE, Alexander PG, **Tuan RS**. High efficiency transfection of embryonic limb mesenchyme with plasmid DNA using square wave pulse electroporation and sucrose buffer. *Biotechniques*. 2014 Feb 1;56(2):85-9. eCollection 2014.

Rothrauff BB, **Tuan RS**. Cellular therapy in bone-tendon interface regeneration. *Organogenesis*. 2014 Jan 1;10(1):13-28. Epub 2013 Dec 9. Review.

Yang G, Rothrauff BB, Lin H, Gottardi R, Alexander PG, **Tuan RS**. Enhancement of tenogenic differentiation of human adipose stem cells by tendon-derived extracellular matrix. *Biomaterials*. 2013 Dec;34(37):9295-306. Epub 2013 Sep 14.

Jiang Y, Chen L, Zhang S, Tong T, Zhang W, Liu W, Xu G, **Tuan RS**, Heng BC, Crawford R, Xiao Y, Ouyang HW. Incorporation of bioactive polyvinylpyrrolidone-iodine within bilayered collagen scaffolds enhances the differentiation and subchondral osteogenesis of mesenchymal stem cells. *Acta Biomaterialia*. 2013 Sep;9(9):8089-98. Epub 2013 May 23.

Yang G, Rothrauff BB, **Tuan RS**. Tendon and ligament regeneration and repair: clinical relevance and developmental paradigm. *Birth Defects Research. Part C, Embryo Today*. 2013 Sep;99(3):203-22. Review.

Baker N, **Tuan RS**. The less-often-traveled surface of stem cells: caveolin-1 and caveolae in stem cells, tissue repair and regeneration. *Stem Cell Research and Therapy*. 2013 Jul 30;4(4):90.

**Tyler-Kabara**

Kryger M, Wester B, Pohlmeyer 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*. 2016 May 16.

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.

Sadtler 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.

Collinger JL, Kryger MA, Barbara R, Betler T, Bowsher K, Brown EH, Clanton ST, Degenhart AD, Foldes ST, Gaunt RA, Gyulai FE, Harchick EA, Harrington D, Helder JB, Hemmes T, Johannes MS, Katyal KD, Ling GS, McMorland AJ, Palko K, Para MP, Scheuermann J, Schwartz AB, Skidmore ER, Solzbacher F, Srikameswaran AV, Swanson DP, Swetz S, **Tyler-Kabara EC**, Velliste M, Wang W, Weber DJ, Wodlinger B, Boninger ML. Collaborative approach in the development of high-performance brain-computer interfaces for a neuroprosthetic arm: translation from animal models to human control. *Clinical and Translational Science*. 2014 Feb;7(1):52-9. Epub 2013 Aug 27.

Collinger JL, Vinjamuri R, Degenhart AD, Weber DJ, Sudre GP, Boninger ML, **Tyler-Kabara EC**, Wang W. Motor-related brain activity during action observation: a neural substrate for electrocorticographic brain-computer interfaces after spinal cord injury. *Frontiers in Integrative Neuroscience*. 2014 Feb 19;8:17. eCollection 2014.

Koutourousiou M, Gardner PA, Fernandez-Miranda JC, **Tyler-Kabara EC**, Wang EW, Snyderman CH. Endoscopic endonasal surgery for craniopharyngiomas: surgical outcome in 64 patients. *Journal of Neurosurgery*. 2013 Nov;119(5):1194-207. Epub 2013 Aug 2.

**Vodovotz**

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 Allotransplantation. *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.

Ziraldo 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 IJ. 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.

Zaaqoq AM, Namas R, Almahmoud K, Azhar N, Mi Q, Zamora R, Brienza DM, Billiar TR, **Vodovotz Y**. Inducible protein-10, a potential driver of neurally controlled interleukin-10 and morbidity in human blunt trauma. *Critical Care Medicine*. 2014 Jun;42(6):1487-97.

Bielekova B, **Vodovotz Y**, An G, Hallenbeck J. How implementation of systems biology into clinical trials accelerates understanding of diseases. Frontiers in Neurology. 2014 Jun 27;5:102. eCollection 2014. Review.

Wolfram D, Starzl R, Hackl H, Barclay D, Hautz T, Zelger B, Brandacher G, Lee WP, Eberhart N, **Vodovotz Y**, Pratschke J, Pierer G, Schneeberger S. Insights from computational modeling in inflammation and acute rejection in limb transplantation. *PLoS One*. 2014 Jun 13;9(6):e99926. eCollection 2014.

Dutta-Moscato J, Solovyev A, Mi Q, Nishikawa T, Soto-Gutierrez A, Fox IJ, **Vodovotz Y**. A Multiscale Agent-Based in silico Model of Liver Fibrosis Progression. *Frontiers in Bioengineering and Biotechnology*. 2014 May 30;2:18. eCollection 2014.

Emr B, Sadowsky D, Azhar N, Gatto LA, An G, Nieman GF, **Vodovotz Y**. Removal of inflammatory ascites is associated with dynamic modification of local and systemic inflammation along with prevention of acute lung injury: in vivo and in silico studies. *Shock*. 2014 Apr;41(4):317-23.

Huang W, **Vodovotz Y**, Kusturiss MB, Barclay D, Greenwald K, Boninger ML, Coen PM, Brienza D, Sowa G. Identification of distinct monocyte phenotypes and correlation with circulating cytokine profiles in acute response to spinal cord injury: a pilot study. *PM&R*. 2014 Apr;6(4):332-41. Epub 2013 Oct 17.

Zhu X, Pribis JP, Rodriguez PC, Morris SM Jr, **Vodovotz Y**, Billiar TR, Ochoa JB. The central role of arginine catabolism in T-cell dysfunction and increased susceptibility to infection after physical injury. *Annals of Surgery*. 2014 Jan;259(1):171-8.

Lei J, **Vodovotz Y**, Tzeng E, Billiar TR. Nitric oxide, a protective molecule in the cardiovascular system. *Nitric Oxide*. 2013 Nov 30;35:175-85. Epub 2013 Oct 1. Review.

Ziraldo C, Mi Q, An G, **Vodovotz Y**. Computational Modeling of Inflammation and Wound Healing. *Advanced Wound Care (New Rochelle)*. 2013 Nov;2(9):527-537.

Emr B, Gatto LA, Roy S, Satalin J, Ghosh A, Snyder K, Andrews P, Habashi N, Marx W, Ge L, Wang G, Dean DA, **Vodovotz Y**, Nieman G. Airway pressure release ventilation prevents ventilator-induced lung injury in normal lungs. *JAMA Surgery*. 2013 Nov;148(11):1005-12.

Price I, Ermentrout B, Zamora R, Wang B, Azhar N, Mi Q, Constantine G, Faeder JR, Luckhart S, **Vodovotz Y**. In vivo, in vitro, and in silico studies suggest a conserved immune module that regulates malaria parasite transmission from mammals to mosquitoes. *Journal of Theoretical Biology*. 2013 Oct 7;334:173-86. Epub 2013 Jun 11.

**Vodovotz Y**, Billiar TR. In silico modeling: methods and applications to trauma and sepsis. *Critical Care Medicine*. 2013 Aug;41(8):2008-14. Review.

Namas RA, Bartels J, Hoffman R, Barclay D, Billiar TR, Zamora R, **Vodovotz Y**. Combined in silico, in vivo, and in vitro studies shed insights into the acute inflammatory response in middle-aged mice. *PLoS One*. 2013 Jul 2;8(7):e67419. Print 2013.

**Wagner**

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 Behavoir 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.

Woolley JR, Teuteberg JJ, Bermudez CA, Bhama JK, Lockard KL, Kormos RL, **Wagner WR**. Temporal leukocyte numbers and granulocyte activation in pulsatile and rotary ventricular assist device patients. *Artificial Organs*. 2014 Jun;38(6):447-55. Epub 2013 Oct 29.

Leng X, Wang J, Carson A, Chen X, Fu H, Ottoboni S, **Wagner WR**, Villanueva FS. Ultrasound detection of myocardial ischemic memory using an E-selectin targeting peptide amenable to human application. *Molecular Imaging*. 2014 Jun;13(4):1-9.

Task K, D'Amore A, Singh S, Candiello J, Jaramillo M, **Wagner WR**, Kumta P, Banerjee I. Systems level approach reveals the correlation of endoderm differentiation of mouse embryonic stem cells with specific microstructural cues of fibrin gels. *Journal of the Royal Society, Interface*. 2014 Apr 9;11(95):20140009. Print 2014 Jun 6.

Koch RG, Tsamis A, D'Amore A, **Wagner WR**, Watkins SC, Gleason TG, Vorp DA. A custom image-based analysis tool for quantifying elastin and collagen micro-architecture in the wall of the human aorta from multi-photon microscopy. *Journal of Biomechanics*. 2014 Mar 21;47(5):935-43. Epub 2014 Jan 20.

Wu J, Du Y, Mann MM, Funderburgh JL, **Wagner WR**. Corneal stromal stem cells versus corneal fibroblasts in generating structurally appropriate corneal stromal tissue. *Experimental Eye Research*. 2014 Mar;120:71-81. Epub 2014 Jan 15.

Nelson DM, Hashizume R, Yoshizumi T, Blakney AK, Ma Z, *Wagner WR*. Intramyocardial injection of a synthetic hydrogel with delivery of bFGF and IGF1 in a rat model of ischemic cardiomyopathy. *Biomacromolecules*. 2014 Jan 13;15(1):1-11. Epub 2014 Jan 2.

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*. 2013 Dec 27. [Epub ahead of print]

Tsamis A, Phillippi JA, Koch RG, Pasta S, D'Amore A, Watkins SC, **Wagner WR**, Gleason TG, Vorp DA. Fiber micro-architecture in the longitudinal-radial and circumferential-radial planes of ascending thoracic aortic aneurysm media. *Journal of Biomechanics*. 2013 Nov 15;46(16):2787-94. Epub 2013 Sep 11.

Kimmel JD, Arazawa DT, Ye SH, Shankarraman V, **Wagner WR**, Federspiel WJ. Carbonic anhydrase immobilized on hollow fiber membranes using glutaraldehyde activated chitosan for

artificial lung applications. *Journal of Materials Science, Materials in Medicine*. 2013 Nov;24(11):2611-21. Epub 2013 Jul 26.

Hashizume R, Hong Y, Takanari K, Fujimoto KL, Tobita K, **Wagner WR**. The effect of polymer degradation time on functional outcomes of temporary elastic patch support in ischemic cardiomyopathy. *Biomaterials*. 2013 Oct;34(30):7353-63. Epub 2013 Jul 1.

Wu J, Du Y, Mann MM, Yang E, Funderburgh JL, **Wagner WR**. Bioengineering organized, multilamellar human corneal stromal tissue by growth factor supplementation on highly aligned synthetic substrates. *Tissue Engineering Part A*. 2013 Sep;19(17-18):2063-75. Epub 2013 May 13.

Hashizume R, Fujimoto KL, Hong Y, Guan J, Toma C, Tobita K, **Wagner WR**. Biodegradable elastic patch plasty ameliorates left ventricular adverse remodeling after ischemia-reperfusion injury: A preclinical study of a porous polyurethane material in a porcine model. *Journal of Thoracic and Cardiovascular Surgery*. 2013 Aug;146(2):391-9.e1. Epub 2012 Dec 6.

Ye SH, Jang YS, Yun YH, Shankarraman V, Woolley JR, Hong Y, Gamble LJ, Ishihara K, **Wagner WR**. Surface modification of a biodegradable magnesium alloy with phosphorylcholine (PC) and sulfobetaine (SB) functional macromolecules for reduced thrombogenicity and acute corrosion resistance. *Langmuir*. 2013 Jul 2;29(26):8320-7. Epub 2013 Jun 18.

Remlinger NT, Gilbert TW, Yoshida M, Guest BN, Hashizume R, Weaver ML, **Wagner WR**, Brown BN, Tobita K, Wearden PD. Urinary bladder matrix promotes site appropriate tissue formation following right ventricle outflow tract repair. *Organogenesis*. 2013 Jul-Sep;9(3):149-60. Epub 2013 Jun 25;9(3).

**Wang**

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 Allotransplantation. *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.

Bi X, You Z, Gao J, Fan X, **Wang Y**. A functional polyester carrying free hydroxyl groups promotes the mineralization of osteoblast and human mesenchymal stem cell extracellular matrix. *Acta Biomaterialia*. 2014 Jun;10(6):2814-23. Epub 2014 Feb 18.

Awada HK, Johnson NR, **Wang Y**. Dual delivery of vascular endothelial growth factor and hepatocyte growth factor coacervate displays strong angiogenic effects. *Macromolecular Bioscience*. 2014 May;14(5):679-86. Epub 2014 Jan 23.

Zaky SH, Hangadora CK, Tudares MA, Gao J, Jensen A, **Wang Y**, Sfeir C, Almarza AJ. Poly (glycerol sebacate) elastomer supports osteogenic phenotype for bone engineering applications. *Biomedical Materials*. 2014 Apr;9(2):025003. Epub 2014 Jan 31.

Ritfeld GJ, Rauck BM, Novosat TL, Park D, Patel P, Roos RA, **Wang Y**, Oudega M. The effect of a polyurethane-based reverse thermal gel on bone marrow stromal cell transplant survival and spinal cord repair. *Biomaterials*. 2014 Feb;35(6):1924-31. Epub 2013 Dec 9.

Rauck BM, Friberg TR, Medina Mendez CA, Park D, Shah V, Bilonick RA, **Wang Y**. Biocompatible reverse thermal gel sustains the release of intravitreal bevacizumab in vivo. *Investigative Ophthalmology and Visial Science*. 2014 Jan 23;55(1):469-76.

Johnson NR, Ambe T, **Wang Y**. Lysine-based polycation:heparin coacervate for controlled protein delivery. *Acta Biomaterialia*. 2014 Jan;10(1):40-6. Epub 2013 Sep 25.

Allen RA, Wu W, Yao M, Dutta D, Duan X, Bachman TN, Champion HC, Stolz DB, Robertson AM, Kim K, Isenberg JS, **Wang Y**. Nerve regeneration and elastin formation within

poly(glycerol sebacate)-based synthetic arterial grafts one-year post-implantation in a rat model. *Biomaterials*. 2014 Jan;35(1):165-73. Epub 2013 Oct 9.

Zaky SH, Lee KW, Gao J, Jensen A, Close J, **Wang Y**, Almarza AJ, Sfeir C. Poly(Glycerol sebacate) elastomer: a novel material for mechanically loaded bone regeneration. *Tissue Engineering Part A*. 2014 Jan;20(1-2):45-53. Epub 2013 Oct 17.

Lee KW, Johnson NR, Gao J, **Wang Y**. Human progenitor cell recruitment via SDF-1α coacervate-laden PGS vascular grafts. *Biomaterials*. 2013 Dec;34(38):9877-85. Epub 2013 Sep 20.

Dutta D, Lee KW, Allen RA, **Wang Y**, Brigham JC, Kim K. Non-invasive assessment of elastic modulus of arterial constructs during cell culture using ultrasound elasticity imaging. *Ultrasound in Medicine and Biology*. 2013 Nov;39(11):2103-15. Epub 2013 Aug 9.

Jeffries EM1, **Wang Y**. Incorporation of parallel electrospun fibers for improved topographical guidance in 3D nerve guides. *Biofabrication*. 2013 Sep;5(3):035015. Epub 2013 Aug 14.

Li H, Johnson NR, Usas A, Lu A, Poddar M, **Wang Y**, Huard J. Sustained release of bone morphogenetic protein 2 via coacervate improves the osteogenic potential of muscle-derived stem cells. *Stem Cells Translational Medicine*. 2013 Sep;2(9):667-77. Epub 2013 Jul 24.

**Wearden**

Maul TM, Kuch BA, **Wearden PD**. Development of Risk Indices for Neonatal Respiratory Extracorporeal Membrane Oxygenation. *ASAIO Journal*. 2016 Sep-Oct;62(5):584-90.

Zafar F, Jefferies JL, Tjossem CJ, Bryant R 3rd, Jaquiss RD, **Wearden PD**, Rosenthal DN, Cabrera AG, Rossano JW, Humpl T, Morales DL. Biventricular Berlin Heart EXCOR pediatric use across the united states. *Annals of Thoracic Surgery*. 2015 Apr;99(4):1328-34. Epub 2015 Feb 20.

Callahan R, Trucco SM, **Wearden PD**, Beerman LB, Arora G, Kreutzer J. Outcomes of pediatric patients undergoing cardiac catheterization while on extracorporeal membrane oxygenation. *Pediatric Cardiology*. 2015 Mar;36(3):625-32. Epub 2014 Nov 9.

Jeffries RG, Mussin Y, Bulanin DS, Lund LW, Kocyildirim E, Zhumadilov ZZh, Olzhayev FS, Federspiel WJ, **Wearden PD**. Pre-clinical evaluation of an adult extracorporeal carbon dioxide removal system with active mixing for pediatric respiratory support. *International Journal of Artificial Organs*. 2014 Dec;37(12):888-99. Epub 2014 Dec 13.

Sanchez-de-Toledo J, Chrysostomou C, Munoz R, Lichtenstein S, Sao-Avilés CA, **Wearden PD**, Morell VO, Clark RS, Toney N, Bell MJ. Cerebral regional oxygen saturation and serum neuromarkers for the prediction of adverse neurologic outcome in pediatric cardiac surgery. *Neurocritical Care*. 2014 Aug;21(1):133-9.

Luffy SA, Chou DT, Waterman J, **Wearden PD**, Kumta PN, Gilbert TW. Evaluation of magnesium-yttrium alloy as an extraluminal tracheal stent. *Journal of Biomedical Materials Research, Part A*. 2014 Mar;102(3):611-20. Epub 2013 May 2.

Coleman AJ, Brozanski B, Mahmood B, **Wearden PD**, Potoka D, Kuch BA. First 24-h SNAP-II score and highest PaCO2 predict the need for ECMO in congenital diaphragmatic hernia. *Journal of Pediatric Surgery*. 2013 Nov;48(11):2214-8.

Woolley JR, Dady S, Spinnato J, Sanchez-de-Toledo J, Miller E, Morelli B, Winowich S, **Wearden PD**. First Berlin heart EXCOR pediatric VAD interhospital transports of nonambulatory patients with the Ikus stationary driver. *ASAIO Journal*. 2013 Sep-Oct;59(5):537-41.

Chrysostomou C, Morell VO, Kuch BA, O'Malley E, Munoz R, **Wearden PD**. Short- and intermediate-term survival after extracorporeal membrane oxygenation in children with cardiac disease. *Journal of Thoracic and Cardiovascular Surgery*. 2013 Aug;146(2):317-25. Epub 2012 Dec 8.

Plonka C, **Wearden PD**, Morell VO, Miller SA, Webber SA, Feingold B. Successful heart transplantation from a donor with Ullrich congenital muscular dystrophy. *American Journal of Transplantation*. 2013 Jul;13(7):1915-7. Epub 2013 May 13.

Yoshida M, Menon PG, Chrysostomou C, Pekkan K, **Wearden PD**, Oshima Y, Okita Y, Morell VO. Total cavopulmonary connection in patients with apicocaval juxtaposition: optimal conduit route using preoperative angiogram and flow simulation. *European Journal of Cardiothoracic Surgery*. 2013 Jul;44(1):e46-52. Epub 2013 Mar 25.

Remlinger NT, Gilbert TW, Yoshida M, Guest BN, Hashizume R, Weaver ML, Wagner WR, Brown BN, Tobita K, **Wearden PD**. Urinary bladder matrix promotes site appropriate tissue formation following right ventricle outflow tract repair. *Organogenesis*. 2013 Jul-Sep;9(3):149-60. Epub 2013 Jun 25;9(3).

**Wells**

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.

Ma B, **Wells A**. The mitogen-activated protein (MAP) kinases p38 and extracellular signal-regulated kinase (ERK) are involved in hepatocyte-mediated phenotypic switching in prostate cancer cells. *Journal of Biological Chemistry*. 2014 Apr 18;289(16):11153-61. Epub 2014 Mar 11.

Ding Z, Joy M, Bhargava R, Gunsaulus M, Lakshman N, Miron-Mendoza M, Petroll M, Condeelis J, **Wells A**, Roy P. Profilin-1 downregulation has contrasting effects on early vs late steps of breast cancer metastasis. *Oncogene*. 2014 Apr 17;33(16):2065-74. Epub 2013 May 20.

Taylor DP, Clark A, Wheeler S, Wells A. Hepatic nonparenchymal cells drive metastatic breast cancer outgrowth and partial epithelial to mesenchymal transition. *Breast Cancer Research and Treatment*. 2014 Apr;144(3):551-60. Epub 2014 Mar 9.

Grahovac J, **Wells A**. Matrikine and matricellular regulators of EGF receptor signaling on cancer cell migration and invasion. *Laboratory Investigation*. 2014 Jan;94(1):31-40. Epub 2013 Nov 18. Review.

Jamison J, Wang JH, **Wells A**. PKCδ regulates force signaling during VEGF/CXCL4 induced dissociation of endothelial tubes. *PLoS One*. 2014 Apr 3;9(4):e93968. eCollection 2014.

Bodnar RJ, Rodgers ME, Chen WC, **Wells A**. Pericyte regulation of vascular remodeling through the CXC receptor 3. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 2013 Dec;33(12):2818-29. Epub 2013 Oct 17.

Rodrigues M, Yates CC, Nuschke A, Griffith L, **Wells A**. The Matrikine Tenascin-C Protects Multipotential Stromal Cells/Mesenchymal Stem Cells from Death Cytokines Such as FasL. *Tissue Engineering Part A*. 2013 Sep;19(17-18):1972-83. Epub 2013 May 1.

**Wells A**, Griffith L, Wells JZ, Taylor DP. The dormancy dilemma: quiescence versus balanced proliferation. *Cancer Research*. Review. 2013 Jul 1;73(13):3811-6. Epub 2013 Jun 21.

**Woo**

Farraro KF, Sasaki N, **Woo SL**, Kim KE, Tei MM, Speziali A, McMahon PJ. A magnesium ring device to restore function of a transected anterior cruciate ligament in the goat stifle joint. *Journal of Orthopaedic Research*. 2016 Feb 24.

Nguyen DT, Dellbrügge S, Tak PP, **Woo SL**, Blankevoort L, van Dijk NC. Histological characteristics of ligament healing after bio-enhanced repair of the transected goat ACL. *Journal of Experimental Orthopaedics*. 2015 Dec;2(1):4.

**Woo SL**. In memoriam: Cyril B. Frank, MD (1949-2015). *Journal of Orthopaedic Research*. 2015 Dec;33(12):1739-40.

Farraro KF, Kim KE, **Woo SL**, Flowers JR, McCullough MB. Revolutionizing orthopaedic biomaterials: The potential of biodegradable and bioresorbable magnesium-based materials for functional tissue engineering. *Journal of Biomechanics*. 2014 Jun 27;47(9):1979-86. Epub 2013 Dec 11.

Sasaki N, Farraro KF, Kim KE, **Woo SL**. Biomechanical evaluation of the quadriceps tendon autograft for anterior cruciate ligament reconstruction: a cadaveric study. *American Journal of Sports Medicine*. 2014 Mar;42(3):723-30. Epub 2014 Jan 8.

Kim KE, Hsu SL, **Woo SL**. Tensile properties of the medial patellofemoral ligament: the effect of specimen orientation. *Journal of Biomechics*. 2014 Jan 22;47(2):592-5. Epub 2013 Nov 25.

Nguyen DT, Geel J, Schulze M, Raschke MJ, **Woo SL**, van Dijk CN, Blankevoort L. Healing of the goat anterior cruciate ligament after a new suture repair technique and bioscaffold treatment. *Tissue Engineering Part A*. 2013 Oct;19(19-20):2292-9. Epub 2013 Jul 10.