

2015

Human Carotid Plaques

Asciutto, G., Dias, N., Edsfeldt, A., & Nitulescu, M. (2015). Low elastin content of carotid plaques is associated with increased risk of ipsilateral stroke. *PloS One* doi: 10.1371/journal.pone.0121086. Retrieved from <http://dx.plos.org/10.1371/journal.pone.0121086>

Human Monocytes and Human Coronary Artery Smooth Muscle Cells

Battiston, K., Labow, R., Simmons, C., & Santerre, J. (2015). Immunomodulatory polymeric scaffold enhances extracellular matrix production in cell co-cultures under dynamic mechanical stimulation. *Acta Biomaterialia* 24, 74 – 86. Retrieved from <http://www.sciencedirect.com/science/article/pii/S174270611500286X>

Human Aortic Valve Interstitial Cells, Bone Marrow Derived and Adipose Tissue Derived Mesenchymal Stem Cells

Duan, B., Hockaday, L., & Das, S. (2015). Comparison of mesenchymal stem cell source differentiation towards human pediatric aortic valve interstitial cells within 3D engineered matrices. *Tissue Engineering Part C: doi: 10.1089/ten.tec.2014.0589*. Retrieved from <http://online.liebertpub.com/doi/abs/10.1089/ten.TEC.2014.0589>

Murine Cardiomyocytes

Gishto, A., Farrell, K., & Kothapalli, C. (2014). Tuning composition and architecture of biomimetic scaffolds for enhanced matrix synthesis by murine cardiomyocytes. *Journal of Biomedical Materials Research Part A* 103, 693 – 708. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/jbm.a.35217/full>

Tendon

Grant, T., Yapp, C., & Chen, Q. (2015). The Mechanical, Structural, and Compositional Changes of Tendon Exposed to Elastase. *Annals of Biomedical Engineering* doi: 10.1007/s10439-015-1308-5. Retrieved from <http://link.springer.com/article/10.1007/s10439-015-1308-5>

Human Vocal Fold Fibroblast

Hughes, L., Gaston, J., & McAlindon, K. (2015). Electrospun fiber constructs for vocal fold tissue engineering: effects of alignment and elastomeric polypeptide coating. *Acta Biomaterialia* 13, 111 – 120. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1742706114004905>

Human Facial Biopsy Tissue

Humbert, P., Fanian, F., & Lihoreau, T. (2015). Mécano-stimulation™ of the skin improves sagging score and induces beneficial functional modification of the fibroblasts: clinical, biological, and histological. *Clin Interventions in Aging* 10, 387 – 403. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4321566/>

Biodegradable Polymer Scaffold in Dog Aorta

Ichihara, Y., & Shinoka, T. (2015). A new tissue-engineered biodegradable surgical patch for high-pressure systems. *Interactive Cardiovasc Thorac surg* 20, 768 – 776. Retrieved from <http://icvts.oxfordjournals.org/content/20/6/768.short>

Skin Wounds

Kim, E., Choi, J., Kim, J., Choi, Y., & Cho, Y. (2015). Injectable and Thermosensitive Soluble Extracellular Matrix and Methylcellulose Hydrogels for Stem Cell Delivery in Skin Wounds. *Biomacromolecules* doi: 10.1021/acs.biomac.5b01566. Retrieved from <http://pubs.acs.org/doi/abs/10.1021/acs.biomac.5b01566>

Human Femoral Vein Segments Containing Valves

Kuna, V., Rosales, A., & Hisdal, J. (2015). Successful tissue engineering of competent allogeneic venous valves. *Journal of Vascular Surgery: Venous and Lymphatic Disorders* doi: 10.1016/j.jvsv.2014.12.002. Retrieved from <http://www.sciencedirect.com/science/article/pii/S2213333X15000049>

Mouse Dermis

Larroque-Cardoso, P. (2015). Elastin Modification by 4-Hydroxynonenal in Hairless Mice Exposed to UV-A. Role in Photoaging and Actinic Elastosis. *Journal of Investigative Dermatology* doi: 10.1038/jid.2015.84. Retrieved from <http://www.nature.com/jid/journal/vaop/ncurrent/full/jid201584a.html>

Human Hepatic Cell Lines (LX-2, SK-Hep-1, HepG2)

Mazza, G., Rombouts, K., Hall, A., & Urbani, L. (2015). Decellularized human liver as a natural 3D-scaffold for liver bioengineering and transplantation. *Scientific Reports* 5, 13079. Retrieved from <http://www.nature.com/srep/2015/150807/srep13079/full/srep13079.html>

Mouse Skin

Nakasaki, M., Hwang, Y., Xie, Y., & Kataria, S. (2015). The matrix protein Fibulin-5 is at the interface of tissue stiffness and inflammation in fibrosis. *Nature Communications* 6, 8574, doi: 10.1038/ncomms9574. Retrieved from <http://www.nature.com/ncomms/2015/151015/ncomms9574/full/ncomms9574.html>

Human Auricular Cartilage

Nimeskern, L., & Pleumeekers, M. (2015). Mechanical and biochemical mapping of human auricular cartilage for reliable assessment of tissue-engineered constructs. *Journal of Biomechanics* 48, 1721 - 1729. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0021929015002961>

Primary Sheep Chondrocytes

Pomerantseva, I., & Bichara, D. (2015). Ear-shaped stable auricular cartilage engineered from extensively expanded chondrocytes in an immunocompetent experimental animal model. *Tissue Engineering Part A* doi: 10.1089/ten.TEA.2015.0173. Retrieved from <http://online.liebertpub.com/doi/abs/10.1089/ten.TEA.2015.0173>

Umbilical Cord Tissue-Derived Mesenchymal Stromal Cells

Santos, J., Camões, S., & Filipe, E. (2015). Three-dimensional spheroid cell culture of umbilical cord tissue-derived mesenchymal stromal cells leads to enhanced paracrine induction of wound healing. *Stem Cell Research & Therapy* 6, 90. Retrieved from <http://link.springer.com/article/10.1186/s13287-015-0082-5>

Biofabricated Tissue Constructs

Skardal, A., Devarasetty, M., Kang, H., & Mead, I. (2015). A hydrogel bioink toolkit for mimicking native tissue biochemical and mechanical properties in bioprinted tissue constructs. *Acta Biomaterialia* doi: 10.1016/j.actbio.2015.07.030. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1742706115300283>

Human Amniotic Membrane Tissue Graft

Wehmeyer, J., Natesan, S., & Christy, R. (2015). Development of a sterile amniotic membrane tissue graft using supercritical carbon dioxide. *Tissue Engineering Part C. Methods* 21, 649 - 659. Retrieved from <http://online.liebertpub.com/doi/abs/10.1089/ten.TEC.2014.0304>

Human Atherosclerotic Plaques

Wigren, M., & Rattik, S. (2015). Decreased levels of stem cell factor in subjects with incident coronary events. *Journal of Internal Medicine* doi: 10.1111/joim.12443. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/joim.12443/full>

Human Lung Fibroblasts

Xu, L., Lu, Y., Zhang, J., Wu, L., Merrilees, M. j., & Qu, J. (2015). Knockdown of versican 1 blocks cigarette-induced loss of insoluble elastin in human lung fibroblasts. *Respiratory Physiology & Neurobiology* **215**, 58 - 63. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1569904815001068>

2014

Arterial Grafts in Rat Abdominal Aorta

Allen, R. A., Wu, W., Yao, M., Dutta, D., Duan, X., Bachman, T. N., Champion, H.C. and Stolz, D.B. (2014) Nerve regeneration and elastin formation within poly (glycerol sebacate)-based synthetic arterial grafts one-year post-implantation in a rat model. *Biomaterials* **35**, 165 - 173.

Porcine Cholecyst

Anilkumar, T. V, Vineetha, V. P., Revi, D., Muhamed, J. and Rajan, A. (2014) Biomaterial properties of cholecyst-derived scaffold recovered by a non-detergent/enzymatic method. *Journal of Biomedical Materials Research Part B Applied Biomaterials* **102**, 1506 - 1516.

Rat Tracheal Matrix

Baiguera, S., Gaudio, C. Del, Kuevda, E., Gonfiotti, A., Bianco, A. and Macchiarini, P. (2014) Dynamic decellularization and cross-linking of rat tracheal matrix. *Biomaterials* **35**, 6344 - 6350.

Rat Allogenic Mesenchymal Stromal Cells

Baiguera, S., Gaudio, C. Del, Lucatelli, E., Kuevda, E., Boieri, M., Mazzanti, B., Bianco, A. and Macchiarini, P. (2014) Electrospun gelatin scaffolds incorporating rat decellularized brain extracellular matrix for neural tissue engineering. *Biomaterials* **35**, 1205 - 1214.

Porcine Aorta

Cheheltani, R., McGoverin, C. M., Rao, J., Vorp, D. A., Kiani, M.F. and Pleshko, N. (2014) Fourier transform infrared spectroscopy to quantify collagen and elastin in an *in vitro* model of extracellular matrix degradation in aorta. *Analyst* **139**, 3039 - 3047.

Human Ligamentum Flavum Cells

Chen, M. H., Hu, C. K., Chen, P. R., Chen, Y. S., Sun, J.S. and Chen, M.H. (2014) Dose-dependent regulation of cell proliferation and collagen degradation by estradiol on ligamentum flavum. *BMC Musculoskeletal Disorders* **15**, 238.

Arterial Extracellular Matrix

Chow, M. J., Turcotte, R., Lin, C. P. and Zhang, Y. (2014) Arterial Extracellular Matrix: A Mechanobiological Study of the Contributions and Interactions of Elastin and Collagen. *Biophysical Journal* **106**, 2684 - 2692.

Human Amniotic Membranes from the Cervix or Placental Regions

Chowdhury, B., David, A. and Thrasivoulou, C. (2014) Tensile strain increased COX-2 expression and PGE₂ release leading to weakening of the human amniotic membrane. *Placenta* doi: 10.1016/j.placenta.2014.09.006.

Rat Dermal Fibroblasts and Rat Alveolar Macrophage cell Line (NR8383)

Damanik, F., Rothuizen, T.C., van Blitterswijk, C., Rotmans, J.I. and Moroni, L. (2014) Towards an in vitro model mimicking the foreign body response: tailoring the surface properties of biomaterials to modulate extracellular matrix. *Scientific Reports* **4**, Article Number: 6325.

Human Umbilical Cord Wharton's Jelly Stem Cells

Fong, C., and Tam, K. (2014) Human Wharton's jelly stem cells and its conditioned medium enhance healing of excisional and diabetic wounds. *Journal of Cellular Biochemistry* **115**, 290 - 302.

Rat, Porcine and Human Lungs

Gilpin, S. E., Guyette, J. P., Gonzalez, G., Ren, X., Asara, J.M., Mathisen, D.J., Vacanti, J.P. and Ott, H.C. (2014) Perfusion decellularization of human and porcine lungs: Bringing the matrix to clinical scale. *The Journal of Heart and Lung Transplant* **33**, 298 - 308.

Murine Cardiomyocytes in 3D Collagen Hydrogels or Polycaprolactone (PCL) Nanofibrous Scaffolds

Gishto, A., Farrell, K. and Kothapalli, C.R. (2014) Tuning composition and architecture of biomimetic scaffolds for enhanced matrix synthesis by murine cardiomyocytes. *Journal of Biomedical Materials Research* doi: 10.1002/jbm.a.35217.

Human Carotid Plaque Homogenates

Grufman, H., Schiopu, A. and Edsfeldt, A. (2014) Evidence for Altered Inflammatory and Repair Responses in Symptomatic Carotid Plaques from Elderly Patients. *Atherosclerosis* **237**, 177 - 182.

Rat Aorta

Gu, Q., Wang, B., Zhang, X. F., Ma, Y. P., Liu, J. D. and Wang, X-Z. (2014a) Chronic aerobic exercise training attenuates aortic stiffening and endothelial dysfunction through preserving aortic mitochondrial function in aged rats. *Experimental Gerontology* **56**, 37 - 44.

Rat Aorta

Gu, Q., Wang, B., Zhang, X. F., Ma, Y. P., Liu, J. D., and Wang, X-Z. (2014b) Contribution of renin-angiotensin system to exercise-induced attenuation of aortic remodeling and improvement of endothelial function in spontaneously hypertensive rats. *Cardiovascular Pathology* **23**, 298 - 305.

Rat Aorta

Gu, Q., Wang, B., Zhang, X.-F., Ma, Y., Liu, J-D. and Wang, X-Z. (2014) Contribution of receptor for advanced glycation end products to vasculature-protecting effects of exercise training in aged rats. *European Journal of Pharmacology* **74**, 186 - 194.

Rat Uterus

Hellström, M., El-Akouri, R., and Sihlbom, C. (2014) Towards development of a bioengineered uterus: comparison of different protocols for rat uterus decellularization. *Acta Biomaterialia* doi:10.1016/j.actbio.2014.08.018.

In Situ Tissue Engineered Vasculature (iTEV) and Native IVC

Isayama, N., Matsumura, G., Sato, H., Matsuda, S. and Yamazaki, K. (2014) Histological maturation of vascular smooth muscle cells in *in situ* tissue-engineered vasculature. *Biomaterials* **35**, 3589 - 3595.

Rat Mesenteric and Femoral Arteries

Jelinic, M., Leo, C. H., Uiterweer, E. D. P. and Sandow, S. L. (2014) Localization of relaxin receptors in arteries and veins, and region-specific increases in compliance and bradykinin-mediated relaxation after in vivo serelaxin treatment. *The FASEB Journal* **28**, 275 - 287.

Human Murine Fibroblasts

Larroque-Cardoso, P., Mucher, E., Grazide, M. H., Josse, G. and Schmitt, A-M. (2014) 4-Hydroxynonenal impairs transforming growth factor- β 1-induced elastin synthesis via epidermal growth factor receptor activation in human and murine fibroblasts. *Free Radical Biology* **71**, 427 - 436.

Human Blood Vessels

Latimer, C. A., Nelson, M., Moore, C. M. and Martin, K. E. (2014) Effect of collagen and elastin content on the burst pressure of human blood vessel seals formed with a bipolar tissue sealing system. *Journal of Surgical Research* **186**, 73 - 80.

Murine Pulmonary Fibroblasts

Liu, S., Parameswaran, H., Young, S. M. and Varisco, B.M. (2014) JNK suppresses pulmonary fibroblast elastogenesis during alveolar development. *Respiratory Research* **15**, 34.

Human Dermal Fibroblasts

Merrilees, M. J., Falk, B. A., Zuo, N., Dickinson, M.E., May, B.C.H. and Wight, T.N. (2014) Use of versican variant V3 and versican antisense expression to engineer cultured human skin containing increased content of insoluble elastin. *Journal of Tissue Engineering and Regenerative Medicine* doi: 10.1002/term.1913.

Canine Joint Cartilage-Derived Chondrocytes

Mizuno, M., Takebe, T., Kobayashi, S., Kimura, S. and Matsutani, M. (2014) Elastic Cartilage Reconstruction by Transplantation of Cultured Hyaline Cartilage-Derived Chondrocytes. *Transplantation Proc* **46**, 1217 - 1221.

Hybrid Biodegradable Polymer Scaffold

Nair, R., Joseph, J., Harikrishnan, V.S., Krishnan, K.V. and Krishnan, L. (2014) Contribution of Fibroblasts to the Mechanical Stability of *In Vitro* Engineered Dermal-Like Tissue Through Extracellular Matrix Deposition. *BioResearch Open Access* doi: 10.1089/biores.2014.0023.

Human Aorta

Phillippi, J., Green, B. and Eskay, M. (2014) Mechanism of aortic medial matrix remodeling is distinct in patients with bicuspid aortic valve. *The Journal of Thoracic and Cardiovascular Surgery* **147**, 1056 - 1064.

Porcine Lung

Price, A. P., Godin, L. M., Domek, A., Cotter, T. and D'Cunha, J. (2014) Automated decellularization of intact, human-sized lung for tissue engineering. *Tissue Engineering Part C* doi: 10.1089/ten.tec.2013.0756.

Rat Uterine Tissue

Santoso, E. G., Yoshida, K., Hirota, Y., Aizawa, M. and Yoshino, O. (2014) Application of Detergents or High Hydrostatic Pressure as Decellularization Processes in Uterine Tissues and Their Subsequent Effects on *In Vivo* Uterine Regeneration in Murine Models. *PloS One* doi: 10.1371/journal.pone.0103201.

Human Adipose-Derived Mesenchymal Stem Cells

Sivan, U., Jayakumar, K. and Krishnan, L.K. (2014) Matrix-directed differentiation of human adipose-derived mesenchymal stem cells to dermal-like fibroblasts that produce extracellular matrix. *Journal of Tissue Engineering and Regenerative Medicine* doi: 10.1002/term.1865.

Canine Cruciate Ligament

Smith, K. D., Clegg, P. D., Innes, J. F. and Comerford, E. J. (2014) Elastin content is high in the canine cruciate ligament and is associated with degeneration. *The Veterinary Journal* **199**, 169 - 174.

Human Wharton's Jelly Stem Cells

Tam, K., Cheyyatraviendran, S., Venugopal, J., Biswas, A. and Choolani, M. (2014) A nanoscaffold impregnated with human Wharton's Jelly stem cells or its secretions improves healing of wounds. *Journal of Cellular Biochemistry* **115**, 794 - 803.

Non-Human Primate Femoral and Carotid Arteries

Wang, R., Raykin, J., Li, H., Gleason, Jr, R. L. and Brewster, L.P. (2014) Differential mechanical response and microstructural organization between non-human primate femoral and carotid arteries. *Biomech Model Mechanobiol* **13**, 1041 - 1051.

Murine Bone Marrow-Derived (BM) - Mesenchymal Stem Cells

Yamawaki-Ogata, A., Fu, X., Hashizume, R., Fujimoto, K.L., Araki, Y., Oshima, H., Narita, Y. and Usui, A. (2014) Therapeutic potential of bone marrow-derived mesenchymal stem cells in formed aortic aneurysms of a mouse model. *European Journal of Cardiothoracic Surgery* **45**, e156 - e165.

2013**Bovine Auricular Chondrocytes**

Brown,B.N., Siebenlist,N.J., Cheetham,J., Ducharme,N.G., Rawlinson,J.J. and Bonassar,L.J. (2013) Computed Tomography-Guided Tissue Engineering of Upper Airway Cartilage. *Tissue Engineering Part C: Methods*, doi:10.1089/ten.tec.2013.0216.

Murine Bladder

Chen,J., Drzewiecki,B.A., Merryman,W.D. and Pope IV,J.C. (2013) Murine bladder wall biomechanics following partial bladder obstruction. *Journal of Biomechanics*, **46**, 2752-2755.

Porcine Thoracic Aortas

Chow,M.J., Choi,M., Yun,S.H. and Zhang,Y. (2013) The Effect of Static Stretch on Elastin Degradation in Arteries. *PLoS one*, **8**, e81951.

Porcine Thoracic Aorta

Chow,M.J., Mondonedo,J.R., Johnson,V.M. and Zhang,Y. (2013) Progressive structural and biomechanical changes in elastin degraded aorta. *Biomechanics and Modeling in Mechanobiology*, **12**, 361 - 372.

Endothelial Colony Forming Cells

de Jonge,N., Muylaert,D.E., Fioretta,E.S., Baaijens,F.P., Fledderus,J.O., Verhaar,M.C. and Bouten,C.V. (2013) Matrix Production and Organization by Endothelial Colony Forming Cells in Mechanically Strained Engineered Tissue Constructs. *PLoS one*, **8**, e73161.

Murine Aortic Tissue

Fu,X.M., Yamawaki-Ogata,A., Oshima,H., Ueda,Y., Usui,A. and Narita,Y. (2013) Intravenous administration of mesenchymal stem cells prevents angiotensin II-induced aortic aneurysm formation in apolipoprotein E-deficient mouse. *Journal of Translational Medicine*, **11**, 175.

Rat, Porcine and Human Decellularised Lung

Gilpin,S.E., Guyette,J.P., Gonzalez,G., Ren,X., Asara,J.M., Mathisen,D.J., Vacanti,J.P. and Ott,H.C. (2013) Perfusion Decellularization of Human and Porcine Lungs: Bringing the Matrix to Clinical Scale. *The Journal of Heart and Lung Transplantation*, <http://dx.doi.org/10.1016/j.healun.2013.10.030>.

Valvular Interstitial Cells

Gould,S.T. and Anseth,K.S. (2013) Role of cell–matrix interactions on VIC phenotype and tissue deposition in 3D PEG hydrogels. *Journal of tissue engineering and regenerative medicine*, doi:10.1002/term.1836.

Murine Carotid Artery and Suprarenal Aortas

Hansen,L., Parker,I., Monet Roberts,L., Sutliff,R.L., Platt,M.O. and Gleason Jr,R.L. (2013) Azidothymidine (AZT) leads to arterial stiffening and intima-media thickening in mice. *Journal of Biomechanics* **46**, 1540 - 1547.

Murine Large Arteries

Hansen,L., Parker,I., Sutliff,R.L., Platt,M.O. and Gleason Jr,R.L. (2013) Endothelial dysfunction, arterial stiffening, and intima-media thickening in large arteries from HIV-1 transgenic mice. *Annals of Biomedical Engineering*, **41**, 682 - 693.

Rat Left Ventricular Lesions

Hashizume,R., Hong,Y., Takanari,K., Fujimoto,K.L., Tobita,K. and Wagner,W.R. (2013) The effect of polymer degradation time on functional outcomes of temporary elastic patch support in ischemic cardiomyopathy. *Biomaterials* **34**, 7353 - 7363.

Porcine Medial Collateral Ligament

Henninger,H.B., Underwood,C.J., Romney,S.J., Davis,G.L. and Weiss,J.A. (2013) Effect of Elastin Digestion on the Quasi-Static Tensile Response of Medial Collateral Ligament. *Journal of Orthopaedic Research* **31**, 1226 - 1233.

Rat Mesenteric and Femoral Arteries

Jelinic,M., Leo,C.H., Uiterweer,E.D.P., Sandow,S.L., Gooi,J.H., Wlodek,M.E., Conrad,K.P., Parkington,H., Tare,M. and Parry,L.J. (2013) Localization of relaxin receptors in arteries and veins, and region-specific increases in compliance and bradykinin-mediated relaxation after in vivo serelaxin treatment. *The FASEB Journal*, doi: 10.1096/fj.13-233429.

Porcine Carotid and Iliac Blood Vessels

Latimer,C.A., Nelson,M., Moore,C.M. and Martin,K.E. (2013) Effect of collagen and elastin content on the burst pressure of human blood vessel seals formed with a bipolar tissue sealing system. *Journal of Surgical Research* **186**, 73 - 80.

Murine Inferior Vena Cava

Lee,Y.U., Naito,Y., Kurobe,H., Breuer,C.K. and Humphrey,J.D. (2013) Biaxial mechanical properties of the inferior vena cava in C57BL/6 and CB-17 SCID/bg mice. *Journal of biomechanics*, **46**, 2277-2282.

Human Vocal Fold Fibroblasts (hVFFs)

Lim,J.Y., Choi,B.H., Lee,S., Jang,Y.H., Choi,J.S. and Kim,Y.M. (2013) Regulation of Wound Healing by Granulocyte-Macrophage Colony-Stimulating Factor after Vocal Fold Injury. *PloS one*, **8**, e54256.

Decellularised Rat Lung

Maghsoudlou,P., Georgiades,F., Tyraskis,A., Totonelli,G., Loukogeorgakis,S.P., Orlando,G., Shangaris,P., Lange,P., Delalande,J.M. and Burns,A.J. (2013) Preservation of micro-architecture and angiogenic potential in a pulmonary acellular matrix obtained using intermittent intra-tracheal flow of detergent enzymatic treatment. *Biomaterials* **34**, 6638 - 6648.

Canine Pulmonary Artery

Matsumura,G., Isayama,N., Matsuda,S., Taki,K., Sakamoto,Y., Ikada,Y. and Yamazaki,K. (2013) Long-term results of cell-free biodegradable scaffolds for in situ tissue engineering of pulmonary artery in a canine model. *Biomaterials* **34**, 6422 - 6428.

Decellularised Porcine Heart

Merna,N., Robertson,C., La,A. and George,S.C. (2013) Optical imaging predicts mechanical properties during decellularization of cardiac tissue. *Tissue Engineering Part C: Methods* **19**, 802 - 809.

Murine Vena Cava

Naito,Y., Lee,Y.U., Yi,T., Church,S.N., Solomon,D., Humphrey,J.D., Shin'oka,T. and Breuer,C.K. (2013) Beyond Burst Pressure: Initial Evaluation of the Natural History of the Biaxial Mechanical Properties of Tissue-Engineered Vascular Grafts in the Venous Circulation Using a Murine Model. *Tissue Engineering Part A* **20**, 346 - 355.

Human and Porcine Lung Tissue

O'Neill, J.D., Anfang, R., Anandappa, A., Costa, J., Javidfar, J., Wobma, H.M., Singh, G., Freytes, D.O., Bacchetta, M.D. and Sonett, J.R. (2013) Decellularization of human and porcine lung tissues for pulmonary tissue engineering. *The Annals of thoracic surgery*, **96**, 1046-1056.

Human Myocardial ECM

Oberwallner, B., Brodarac, A., Choi, Y., Saric, T., Ani-ç, P., Morawietz, L. and Stamm, C. (2013) Preparation of cardiac extracellular matrix scaffolds by decellularization of human myocardium. *Journal of Biomedical Materials Research Part A* doi: 10.1002/jbm.a.35000.

Human Aortic Specimens

Phillippi, J.A., Green, B.R., Eskay, M.A., Kotlarczyk, M.P., Hill, M.R., Robertson, A.M., Watkins, S.C., Vorp, D.A. and Gleason, T.G. (2013) Mechanism of aortic medial matrix remodeling is distinct in patients with bicuspid aortic valve. *The Journal of Thoracic and Cardiovascular Surgery*, <http://dx.doi.org/10.1016/j.jtcvs.2013.04.028>.

Decellularized Liver Extracellular Matrix

Ren, H., Shi, X., Tao, L., Xiao, J., Han, B., Zhang, Y., Yuan, X. and Ding, Y. (2013) Evaluation of two decellularization methods in the development of a whole-organ decellularized rat liver scaffold. *Liver International*, **33**, 448-458.

Rabbit Skin Wound

Revi, D., Vineetha, V.P., Muhamed, J., Rajan, A. and Anilkumar, T.V. (2013) Porcine cholecyst-derived scaffold promotes full-thickness wound healing in rabbit. *Journal of Tissue Engineering* doi: 10.1177/2041731413518060.

Abdominal Aortic Aneurysms

Sivaraman, B. and Ramamurthi, A. (2013) Multifunctional nanoparticles for doxycycline delivery towards localized elastic matrix stabilization and regenerative repair. *Acta Biomaterialia* **9**, 6511 - 6525.

Canine Cruciate Ligament

Smith, K.D., Clegg, P.D., Innes, J.F. and Comerford, E.J. (2013) Elastin content is high in the canine cruciate ligament and is associated with degeneration. *The Veterinary Journal* <http://dx.doi.org/10.1016/j.tvjl.2013.11.002>.

Aneurysmal Rat Aortic Smooth Muscle Cells

Sylvester, A., Sivaraman, B., Deb, P. and Ramamurthi, A. (2013) Nanoparticles for localized delivery of hyaluronan oligomers towards regenerative repair of elastic matrix. *Acta Biomaterialia*, **9**, 9292-9302.

Rat Abdominal Wall

Takanari, K., Hong, Y., Hashizume, R., Huber, A., Amoroso, N.J., D'Amore, A., Badylak, S.F. and Wagner, W.R. (2013) Abdominal wall reconstruction by a regionally distinct biocomposite of extracellular matrix digest and a biodegradable elastomer. *Journal of tissue engineering and regenerative medicine*, doi: 10.1002/term.1834.

Human Wharton's Jelly Stem Cells

Tam, K., Suganya, C., Venugopal, J., Biswas, A., Choolani, M., Ramakrishna, S., Bongso, A. and Fong, C. (2013) A Nanoscaffold Impregnated with Human Wharton's Jelly Stem Cells or Its Secretions Improves Healing of Wounds. *Journal of Cellular Biochemistry*, doi: 10.1002/jcb.24723.

Rat Aortic Tissue

Tanaka,A., Hasegawa,T., Morimoto,K., Bao,W., Yu,J., Okita,Y., Tabata,Y. and Okada,K. (2013) Controlled release of ascorbic acid from gelatin hydrogel attenuates abdominal aortic aneurysm formation in rat experimental abdominal aortic aneurysm model. *Journal of Vascular Surgery*, <http://dx.doi.org/10.1016/j.jvs.2013.07.013>.

Rat Aorta Smooth Muscle Cells

Thomas,L.V. and Nair,P.D. (2013) The Effect of Pulsatile Loading and Scaffold Structure for the Generation of a Medial Equivalent Tissue Engineered Vascular Graft. *BioResearch open access*, **2**, 227-239.

Abdominal Aortic Aneurysms

Tong,J., Schriegl,A.J., Cohnert,T. and Holzapfel,G.A. (2013) Gender differences in biomechanical properties, thrombus age, mass fraction and clinical factors of abdominal aortic aneurysms. *European Journal of Vascular and Endovascular Surgery* **45**, 364 - 372.

Mesenchymal Stem Cells

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