美国 Tissue growth 品牌体外三维组织应力加载培养、测试分析系统

Publications

BISS TGT Bioreactor Systems in Current Literature

Patents

Instrumented bioreactor with material property measurment capability and process-based adjustment for conditioning tissue engineered medical products.US pat no 7410792. August 12, 2008

Bioreactor with plurality of chambers for conditioning intravascular tissue engineered medical products. US pat no 7348175. March 25, 2008

Cell seeding module including an apparatus and method for seeding cells on a sample or specimen. US pat no 8173420. May 8, 2012.

Peer Reviewed Publications

Angelidis IK, Thorfinn J, Connolly ID, Lindsey D, Pham HM, Chang J. Tissue Engineering of Flexor Tendons: The Effect of a Tissue Bioreactor on Adipoderived Stem cell-Seeded and Fibroblast-Seeded Tendon Constructs. *J Hand Surg Am.* 2010 Sep; 35(9): 1466-72.

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Woon Cy, Kraus A, Raghavan SS, Pridgen BC, Megerle K, Pham H, Chang J. Three-Dimensional-Construct Bioreactor Conditioning in Human Tendon Tissue Engineering. *Tissue Eng Part A.* 2011 July 1: Epublished ahead of print

Tran SC, Cooley AJ, Elder SH. Effects of a Mechanical Stimulation Bioreactor on Tissue Engineered, Scaffold-Free Cartilage. Biotechnology and Bioengineering. 2011; 108:1421-1429.Saber S, Zhang AY, Ki SH, Lindsey DP, Smith RL, Riboh J, Pham H, Chang J. Flexor Tendon Tissue Engineering: Bioreactor Cyclic Strain Increases Construct Strength. *Tissue Engineering A*. 2010 Jun 16(6): 2085-90.

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Porter BD, Lin AS, Peister A, Hutmacher D, Guldberg RE, Noninvasive image analysis of 3D construct mineralization in a perfusion bioreactor. *Biomaterials.*2007 May; 28(15):2525-33. Epub 2007 Jan 26.

Sell SA, McClure MJ, Barnes CP, Knapp DC, Walpoth BH, Simpson DG, Bowlin GL. Electrospun polydioxanone-elastin blends: potential for bioresorbably vascular grafts. Biomedical Materials. 2006; 1(2).PubMed PMID 18460759.

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Michael J. McClure, Scott A. Sell, David G. Simpson, Beat H. Walpoth, Gary L. Bowlin. A three-layered electrospun matrix to mimic native arterial architecture using polycaprolactone, elastin, and collagen: A preliminary study. Acta Biomaterialia. Vol. 6, Issue 7, July 2010, Pages 2422-2433.

Dr. Jan Hansmann, Florian Groeber, Alexander Kahlig, Claudia Kleinhans, Heike Walles. Bioreactors in tissue engineering--principles, applications and commercial constraints. Biotechnology Journal. Vol. 8, Issue 2, 2013.

Johan Thorfinn, I.K. Angelidis, L. Gigliello, H.M. Pham, D. Lindsey, J. Chang. Bioreactor optimization of tissue engineered rabbit flexor tendons in vivo. The Journal of Hands Surgery. (Eur Vol.) Feb. 2012 vol. 37 no. 2 pages 109-114.

Presentations

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S Saber. Stanford University Medical Center, Department of Plastic Surgery, Flexor Tendon Tissue Engineering: Cyclic Strain Increases Construct Strength and Tendon Architecture. *Plastic Surgery Research Council.* Springfield, Illinois, May 2008. Also presented at the *California Society of Plastic Surgeons*, Dana Point, California, June 2008.

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