Gordana Vunjak-Novakovic

List of Publications by Year in Descending Order

389 papers	35,288 citations	110 h-index	180 g-index
435 ext. papers	38,997 ext. citations	8.3 avg, IF	7.32 L-index

#	Paper	IF	Citations
389	Progress in multicellular human cardiac organoids for clinical applications.. *Cell Stem Cell*, **2022**, 29, 503-518	18.4	4
388	Engineering complexity in human tissue models of cancer.. *Advanced Drug Delivery Reviews*, **2022**, 114181	18.5	1
387	Opportunities and challenges in cardiac tissue engineering from an analysis of two decades of advances.. *Nature Biomedical Engineering*, **2022**, 6, 327-338	19	3
386	A multi-organ chip with matured tissue niches linked by vascular flow.. *Nature Biomedical Engineering*, **2022**, 6, 351-371	19	13
385	A guide to the organ-on-a-chip. *Nature Reviews Methods Primers*, **2022**, 2,		21
384	A framework for developing sex-specific engineered heart models. *Nature Reviews Materials*, **2021**, 1-19	73.3	5
383	Engineered Vascularized Flaps, Composed of Polymeric Soft Tissue and Live Bone, Repair Complex Tibial Defects (Adv. Funct. Mater. 44/2021). *Advanced Functional Materials*, **2021**, 31, 2170325	15.6	
382	RNA and Protein Delivery by Cell-Secreted and Bioengineered Extracellular Vesicles. *Advanced Healthcare Materials*, **2021**, e2101557	10.1	0
381	milliPillar: A Platform for the Generation and Real-Time Assessment of Human Engineered Cardiac Tissues. *ACS Biomaterials Science and Engineering*, **2021**, 7, 5215-5229	5.5	1
380	Extracellular Vesicles in Cardiac Regeneration: Potential Applications for Tissues-on-a-Chip. *Trends in Biotechnology*, **2021**, 39, 755-773	15.1	10
379	Engineered models of tumor metastasis with immune cell contributions. *IScience*, **2021**, 24, 102179	6.1	6
378	Sustained Delivery of SB-431542, a Type I Transforming Growth Factor Beta-1 Receptor Inhibitor, to Prevent Arthrofibrosis. *Tissue Engineering - Part A*, **2021**, 27, 1411-1421	3.9	2
377	Emerging technologies provide insights on cancer extracellular matrix biology and therapeutics. *IScience*, **2021**, 24, 102475	6.1	3
376	Machine Learning Techniques to Classify Healthy and Diseased Cardiomyocytes by Contractility Profile. *ACS Biomaterials Science and Engineering*, **2021**, 7, 3043-3052	5.5	2
375	Harnessing organs-on-a-chip to model tissue regeneration. *Cell Stem Cell*, **2021**, 28, 993-1015	18	11
374	Gut bioengineering strategies for regenerative medicine. *American Journal of Physiology - Renal Physiology*, **2021**, 320, G1-G11	5.1	2
373	Cell type-specific microRNA therapies for myocardial infarction. *Science Translational Medicine*, **2021**, 13,	17.5	7

372	Human Serum Enhances Biomimicry of Engineered Tissue Models of Bone and Cancer. *Frontiers in Bioengineering and Biotechnology*, **2021**, 9, 658472	5.8	1
371	Bioengineered optogenetic model of human neuromuscular junction. *Biomaterials*, **2021**, 276, 121033	15.6	4
370	Organs-on-a-chip models for biological research. *Cell*, **2021**, 184, 4597-4611	56.2	26
369	Non-destructive vacuum-assisted measurement of lung elastic modulus. *Acta Biomaterialia*, **2021**, 131, 370-380	10.8	1
368	Horizontal transfer of the stemness-related markers EZH2 and GLI1 by neuroblastoma-derived extracellular vesicles in stromal cells. *Translational Research*, **2021**, 237, 82-97	11	4
367	Dynamic Hydrogels for Investigating Vascularization. *Cell Stem Cell*, **2020**, 27, 697-698	18	1
366	Bioengineering of Pulmonary Epithelium With Preservation of the Vascular Niche. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 269	5.8	4
365	From arteries to capillaries: approaches to engineering human vasculature. *Advanced Functional Materials*, **2020**, 30, 1910811	15.6	28
364	Pulsed electromagnetic fields promote repair of focal articular cartilage defects with engineered osteochondral constructs. *Biotechnology and Bioengineering*, **2020**, 117, 1584-1596	4.9	9
363	Embryonic stem cells as a cell source for tissue engineering **2020**, 467-490		5
362	Cardiac tissue engineering **2020**, 593-616		1
361	The Cellular and Physiological Basis for Lung Repair and Regeneration: Past, Present, and Future. *Cell Stem Cell*, **2020**, 26, 482-502	18	117
360	Tissue-Engineered Bone Tumor as a Reproducible Human in Vitro Model for Studies of Anticancer Drugs. *Toxicological Sciences*, **2020**, 173, 65-76	4.4	5
359	Heart regeneration in mouse and human: A bioengineering perspective. *Current Opinion in Physiology*, **2020**, 14, 56-63	2.6	1
358	In vitro models of neuromuscular junctions and their potential for novel drug discovery and development. *Expert Opinion on Drug Discovery*, **2020**, 15, 307-317	6.2	7
357	Multiday maintenance of extracorporeal lungs using cross-circulation with conscious swine. *Journal of Thoracic and Cardiovascular Surgery*, **2020**, 159, 1640-1653.e18	1.5	17
356	Tissue engineered autologous cartilage-bone grafts for temporomandibular joint regeneration. *Science Translational Medicine*, **2020**, 12,	17.5	16
355	Xenogeneic cross-circulation for extracorporeal recovery of injured human lungs. *Nature Medicine*, **2020**, 26, 1102-1113	50.5	21

354	Integrated human organ-on-a-chip model for predictive studies of anti-tumor drug efficacy and cardiac safety. *Lab on A Chip*, **2020**, 20, 4357-4372	7.2	29
353	Engineering of human cardiac muscle electromechanically matured to an adult-like phenotype. *Nature Protocols*, **2019**, 14, 2781-2817	18.8	57
352	A Platform for Generation of Chamber-Specific Cardiac Tissues and Disease Modeling. *Cell*, **2019**, 176, 913-927.e18	56.2	239
351	Regeneration of severely damaged lungs using an interventional cross-circulation platform. *Nature Communications*, **2019**, 10, 1985	17.4	18
350	Bioengineered Constructs of the Ramus/Condyle Unit **2019**, 351-372		
349	Tissue engineered models of healthy and malignant human bone marrow. *Advanced Drug Delivery Reviews*, **2019**, 140, 78-92	18.5	13
348	Bioengineering approaches to organ preservation ex vivo. *Experimental Biology and Medicine*, **2019**, 244, 630-645	3.7	8
347	Rapid Wire Casting: A Multimaterial Microphysiological Platform Enabled by Rapid Casting of Elastic Microwires (Adv. Healthcare Mater. 5/2019). *Advanced Healthcare Materials*, **2019**, 8, 1970019	10.1	
346	Quantification of human neuromuscular function through optogenetics. *Theranostics*, **2019**, 9, 1232-1246	12.1	30
345	A Multimaterial Microphysiological Platform Enabled by Rapid Casting of Elastic Microwires. *Advanced Healthcare Materials*, **2019**, 8, e1801187	10.1	17
344	Bioreactors in Regenerative Medicine **2019**, 787-803		2
343	Cell replacement in human lung bioengineering. *Journal of Heart and Lung Transplantation*, **2019**, 38, 215-224	5.8	16
342	Human Tissue-Engineered Model of Myocardial Ischemia-Reperfusion Injury. *Tissue Engineering - Part A*, **2019**, 25, 711-724	3.9	31
341	Organs-on-a-Chip: A Fast Track for Engineered Human Tissues in Drug Development. *Cell Stem Cell*, **2018**, 22, 310-324	18	337
340	Cardiac recovery via extended cell-free delivery of extracellular vesicles secreted by cardiomyocytes derived from induced pluripotent stem cells. *Nature Biomedical Engineering*, **2018**, 2, 293-303	19	157
339	Advanced maturation of human cardiac tissue grown from pluripotent stem cells. *Nature*, **2018**, 556, 239-243	50.4	601
338	Perfusion Enhances Hypertrophic Chondrocyte Matrix Deposition, But Not the Bone Formation. *Tissue Engineering - Part A*, **2018**, 24, 1022-1033	3.9	4
337	Human bone perivascular niche-on-a-chip for studying metastatic colonization. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 1256-1261	11.5	107

336	Chondrogenic properties of collagen type XI, a component of cartilage extracellular matrix. *Biomaterials*, **2018**, 173, 47-57	15.6	29
335	Dual IFN-γ/hypoxia priming enhances immunosuppression of mesenchymal stromal cells through regulatory proteins and metabolic mechanisms. *Journal of Immunology and Regenerative Medicine*, **2018**, 1, 45-56	2.8	18
334	Testing the potency of anti-TNF-α and anti-IL-1β drugs using spheroid cultures of human osteoarthritic chondrocytes and donor-matched chondrogenically differentiated mesenchymal stem cells. *Biotechnology Progress*, **2018**, 34, 1045-1058	2.8	7
333	The influence of hypoxia and IFN-γ on the proteome and metabolome of therapeutic mesenchymal stem cells. *Biomaterials*, **2018**, 167, 226-234	15.6	31
332	Ectopic implantation of juvenile osteochondral tissues recapitulates endochondral ossification. *Journal of Tissue Engineering and Regenerative Medicine*, **2018**, 12, 468-478	4.4	5
331	Paracrine Effects of Mesenchymal Stromal Cells Cultured in Three-Dimensional Settings on Tissue Repair. *ACS Biomaterials Science and Engineering*, **2018**, 4, 1162-1175	5.5	20
330	Can We Engineer a Human Cardiac Patch for Therapy?. *Circulation Research*, **2018**, 123, 244-265	15.7	90
329	Left-Ventricular Assist Device Impact on Aortic Valve Mechanics, Proteomics and Ultrastructure. *Annals of Thoracic Surgery*, **2018**, 105, 572-580	2.7	8
328	Tissue Engineered Bone Differentiated From Human Adipose Derived Stem Cells Inhibit Posterolateral Fusion in an Athymic Rat Model. *Spine*, **2018**, 43, 533-541	3.3	1
327	Live imaging of stem cells in the germarium of the Drosophila ovary using a reusable gas-permeable imaging chamber. *Nature Protocols*, **2018**, 13, 2601-2614	18.8	6
326	Models of Ischemia-Reperfusion Injury. *Regenerative Engineering and Translational Medicine*, **2018**, 4, 142-153	2.4	26
325	Shortcomings of Animal Models and the Rise of Engineered Human Cardiac Tissue. *ACS Biomaterials Science and Engineering*, **2017**, 3, 1884-1897	5.5	18
324	Tissue-Engineered Model of Human Osteolytic Bone Tumor. *Tissue Engineering - Part C: Methods*, **2017**, 23, 98-107	2.9	16
323	Recapitulation of physiological spatiotemporal signals promotes in vitro formation of phenotypically stable human articular cartilage. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 2556-2561	11.5	29
322	Constrained Cage Culture Improves Engineered Cartilage Functional Properties by Enhancing Collagen Network Stability. *Tissue Engineering - Part A*, **2017**, 23, 847-858	3.9	9
321	Cross-circulation for extracorporeal support and recovery of the lung. *Nature Biomedical Engineering*, **2017**, 1,	19	20
320	Stem cell delivery in tissue-specific hydrogel enabled meniscal repair in an orthotopic rat model. *Biomaterials*, **2017**, 132, 59-71	15.6	57
319	Alternative direct stem cell derivatives defined by stem cell location and graded Wnt signalling. *Nature Cell Biology*, **2017**, 19, 433-444	23.4	34

318	Tissue-engineered hypertrophic chondrocyte grafts enhanced long bone repair. *Biomaterials*, **2017**, 139, 202-212	15.6	43
317	Biomimetic Approaches for Bone Tissue Engineering. *Tissue Engineering - Part B: Reviews*, **2017**, 23, 480-493	7.9	46
316	Controlled delivery and minimally invasive imaging of stem cells in the lung. *Scientific Reports*, **2017**, 7, 13082	4.9	19
315	Engineering Vascular Niche for Bone Tissue Regeneration **2017**, 517-529		
314	Functional vascularized lung grafts for lung bioengineering. *Science Advances*, **2017**, 3, e1700521	14.3	48
313	A microfluidic platform for the high-throughput study of pathological cardiac hypertrophy. *Lab on A Chip*, **2017**, 17, 3264-3271	7.2	25
312	Bioreactor model of neuromuscular junction with electrical stimulation for pharmacological potency testing. *Integrative Biology (United Kingdom)*, **2017**, 9, 956-967	3.7	10
311	Extracellular Vesicles and Their Versatile Roles in Tissue Engineering. *Tissue Engineering - Part A*, **2017**, 23, 1210-1211	3.9	4
310	Electromechanical Conditioning of Adult Progenitor Cells Improves Recovery of Cardiac Function After Myocardial Infarction. *Stem Cells Translational Medicine*, **2017**, 6, 970-981	6.9	21
309	Bioengineering methods for myocardial regeneration. *Advanced Drug Delivery Reviews*, **2016**, 96, 195-202	18.5	45
308	Distilling complexity to advance cardiac tissue engineering. *Science Translational Medicine*, **2016**, 8, 342ps13	17.5	108
307	Tissue-engineered autologous grafts for facial bone reconstruction. *Science Translational Medicine*, **2016**, 8, 343ra83	17.5	131
306	Extracellular matrix components and culture regimen selectively regulate cartilage formation by self-assembling human mesenchymal stem cells in vitro and in vivo. *Stem Cell Research and Therapy*, **2016**, 7, 183	8.3	16
305	Modular Assembly Approach to Engineer Geometrically Precise Cardiovascular Tissue. *Advanced Healthcare Materials*, **2016**, 5, 900-6	10.1	18
304	Heterogeneous engineered cartilage growth results from gradients of media-supplemented active TGF-□and is ameliorated by the alternative supplementation of latent TGF-□*Biomaterials*, **2016**, 77, 173-185	15.6	44
303	Tissue-Engineering for the Study of Cardiac Biomechanics. *Journal of Biomechanical Engineering*, **2016**, 138, 021010	2.1	8
302	Autonomous beating rate adaptation in human stem cell-derived cardiomyocytes. *Nature Communications*, **2016**, 7, 10312	17.4	104
301	Modeling tumor microenvironments using custom-designed biomaterial scaffolds. *Current Opinion in Chemical Engineering*, **2016**, 11, 94-105	5.4	52

300	Tissue Engineering and Regenerative Medicine 2015: A Year in Review. *Tissue Engineering - Part B: Reviews*, **2016**, 22, 101-13	7.9	59
299	Differential gene expression in human, murine, and cell line-derived macrophages upon polarization. *Experimental Cell Research*, **2016**, 347, 1-13	4.2	94
298	Recapitulating the Size and Cargo of Tumor Exosomes in a Tissue-Engineered Model. *Theranostics*, **2016**, 6, 1119-30	12.1	50
297	Microgravity and Microgravity Analogue Studies of Cartilage and Cardiac Tissue Engineering **2016**, 175-195		
296	Mesenchymal Stem Cells for Osteochondral Tissue Engineering. *Methods in Molecular Biology*, **2016**, 1416, 35-54	1.4	6
295	Optimizing nutrient channel spacing and revisiting TGF-beta in large engineered cartilage constructs. *Journal of Biomechanics*, **2016**, 49, 2089-2094	2.9	6
294	Should we use cells, biomaterials, or tissue engineering for cartilage regeneration?. *Stem Cell Research and Therapy*, **2016**, 7, 56	8.3	105
293	Bioengineered Models of Solid Human Tumors for Cancer Research. *Methods in Molecular Biology*, **2016**, 1502, 203-11	1.4	12
292	High seeding density of human chondrocytes in agarose produces tissue-engineered cartilage approaching native mechanical and biochemical properties. *Journal of Biomechanics*, **2016**, 49, 1909-1917	2.9	32
291	Transcriptional patterns of reverse remodeling with left ventricular assist devices: a consistent signature. *Expert Review of Medical Devices*, **2016**, 13, 1029-1034	3.5	5
290	Nutrient Channels Aid the Growth of Articular Surface-Sized Engineered Cartilage Constructs. *Tissue Engineering - Part A*, **2016**, 22, 1063-74	3.9	18
289	Macrophages modulate engineered human tissues for enhanced vascularization and healing. *Annals of Biomedical Engineering*, **2015**, 43, 616-27	4.7	49
288	Challenges in engineering osteochondral tissue grafts with hierarchical structures. *Expert Opinion on Biological Therapy*, **2015**, 15, 1583-99	5.4	26
287	"The state of the heart": Recent advances in engineering human cardiac tissue from pluripotent stem cells. *Experimental Biology and Medicine*, **2015**, 240, 1008-18	3.7	8
286	Seven actionable strategies for advancing women in science, engineering, and medicine. *Cell Stem Cell*, **2015**, 16, 221-4	18	26
285	Immune modulation as a therapeutic strategy in bone regeneration. *Journal of Experimental Orthopaedics*, **2015**, 2, 1	2.3	64
284	Engineering physiologically stiff and stratified human cartilage by fusing condensed mesenchymal stem cells. *Methods*, **2015**, 84, 109-14	4.6	11
283	Bupivacaine mandibular nerve block affects intraoperative blood pressure and heart rate in a Yucatan miniature swine mandibular condylectomy model: a pilot study. *Journal of Investigative Surgery*, **2015**, 28, 32-9	1.2	2

282	Controlled release of cytokines using silk-biomaterials for macrophage polarization. *Biomaterials*, **2015**, 73, 272-83	15.6	82
281	Cardiac biology: A protein for healing infarcted hearts. *Nature*, **2015**, 525, 461-2	50.4	2
280	Targeted delivery of liquid microvolumes into the lung. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 11530-5	11.5	20
279	Endothelial cells enhance the migration of bovine meniscus cells. *Arthritis and Rheumatology*, **2015**, 67, 182-92	9.5	15
278	Passage-dependent relationship between mesenchymal stem cell mobilization and chondrogenic potential. *Osteoarthritis and Cartilage*, **2015**, 23, 319-27	6.2	22
277	Clinical translation of controlled protein delivery systems for tissue engineering. *Drug Delivery and Translational Research*, **2015**, 5, 101-15	6.2	26
276	Sequential delivery of immunomodulatory cytokines to facilitate the M1-to-M2 transition of macrophages and enhance vascularization of bone scaffolds. *Biomaterials*, **2015**, 37, 194-207	15.6	416
275	Silk microfiber-reinforced silk hydrogel composites for functional cartilage tissue repair. *Acta Biomaterialia*, **2015**, 11, 27-36	10.8	176
274	Rapid retraction of microvolume aqueous plugs traveling in a wettable capillary. *Applied Physics Letters*, **2015**, 107, 144101	3.4	2
273	Physiologic force-frequency response in engineered heart muscle by electromechanical stimulation. *Biomaterials*, **2015**, 60, 82-91	15.6	103
272	Bioengineered tumors. *Bioengineered*, **2015**, 6, 73-6	5.7	7
271	Synergistic effects of hypoxia and morphogenetic factors on early chondrogenic commitment of human embryonic stem cells in embryoid body culture. *Stem Cell Reviews and Reports*, **2015**, 11, 228-41	6.4	18
270	Tissue-engineered models of human tumors for cancer research. *Expert Opinion on Drug Discovery*, **2015**, 10, 257-68	6.2	63
269	Matrix Production in Large Engineered Cartilage Constructs Is Enhanced by Nutrient Channels and Excess Media Supply. *Tissue Engineering - Part C: Methods*, **2015**, 21, 747-57	2.9	29
268	Electrical stimulation enhances cell migration and integrative repair in the meniscus. *Scientific Reports*, **2014**, 4, 3674	4.9	70
267	The role of macrophage phenotype in vascularization of tissue engineering scaffolds. *Biomaterials*, **2014**, 35, 4477-88	15.6	532
266	Electrically conductive chitosan/carbon scaffolds for cardiac tissue engineering. *Biomacromolecules*, **2014**, 15, 635-43	6.9	248
265	Biomimetic scaffold combined with electrical stimulation and growth factor promotes tissue engineered cardiac development. *Experimental Cell Research*, **2014**, 321, 297-306	4.2	34

264	Large, stratified, and mechanically functional human cartilage grown in vitro by mesenchymal condensation. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 6940-5	11.5	129
263	Efficient generation of lung and airway epithelial cells from human pluripotent stem cells. *Nature Biotechnology*, **2014**, 32, 84-91	44.5	392
262	Hierarchically ordered nanopatterns for spatial control of biomolecules. *ACS Nano*, **2014**, 8, 11846-53	16.7	20
261	Microscale technologies for regulating human stem cell differentiation. *Experimental Biology and Medicine*, **2014**, 239, 1255-63	3.7	19
260	Embryonic Stem Cells as a Cell Source for Tissue Engineering **2014**, 609-638		4
259	Principles of Bioreactor Design for Tissue Engineering **2014**, 261-278		1
258	Delivering life's blood: emerging technologies, current opportunities and challenges. *Current Opinion in Chemical Engineering*, **2014**, 3, v-vi	5.4	1
257	Nutrient channels and stirring enhanced the composition and stiffness of large cartilage constructs. *Journal of Biomechanics*, **2014**, 47, 3847-54	2.9	18
256	Cardiac Tissue Engineering **2014**, 771-792		4
255	Human adipose-derived cells can serve as a single-cell source for the in vitro cultivation of vascularized bone grafts. *Journal of Tissue Engineering and Regenerative Medicine*, **2014**, 8, 629-39	4.4	20
254	Galvanic microparticles increase migration of human dermal fibroblasts in a wound-healing model via reactive oxygen species pathway. *Experimental Cell Research*, **2014**, 320, 79-91	4.2	20
253	Bioengineered human tumor within a bone niche. *Biomaterials*, **2014**, 35, 5785-94	15.6	56
252	The current status of iPS cells in cardiac research and their potential for tissue engineering and regenerative medicine. *Stem Cell Reviews and Reports*, **2014**, 10, 177-90	6.4	46
251	Cultivation of human bone-like tissue from pluripotent stem cell-derived osteogenic progenitors in perfusion bioreactors. *Methods in Molecular Biology*, **2014**, 1202, 173-84	1.4	12
250	Bioreactor cultivation of anatomically shaped human bone grafts. *Methods in Molecular Biology*, **2014**, 1202, 57-78	1.4	10
249	Natural cardiac extracellular matrix hydrogels for cultivation of human stem cell-derived cardiomyocytes. *Methods in Molecular Biology*, **2014**, 1181, 69-81	1.4	28
248	In vitro mesenchymal trilineage differentiation and extracellular matrix production by adipose and bone marrow derived adult equine multipotent stromal cells on a collagen scaffold. *Stem Cell Reviews and Reports*, **2013**, 9, 858-72	6.4	45
247	Insulin, ascorbate, and glucose have a much greater influence than transferrin and selenous acid on the in vitro growth of engineered cartilage in chondrogenic media. *Tissue Engineering - Part A*, **2013**, 19, 1941-8	3.9	34

246	Bioreactors for Tissue Engineering **2013**, 1178-1194		0
245	Cardiac Muscle Tissue Engineering **2013**, 1262-1276		1
244	The regulation of growth and metabolism of kidney stem cells with regional specificity using extracellular matrix derived from kidney. *Biomaterials*, **2013**, 34, 9830-41	15.6	87
243	Patterning pluripotency in embryonic stem cells. *Stem Cells*, **2013**, 31, 1806-15	5.8	14
242	Bioengineering heart tissue for in vitro testing. *Current Opinion in Biotechnology*, **2013**, 24, 926-32	11.4	26
241	Principles of engineering tissue regeneration (Sun Valley 2012). *IBMS BoneKEy*, **2013**, 10,		3
240	Transient hypoxia improves matrix properties in tissue engineered cartilage. *Journal of Orthopaedic Research*, **2013**, 31, 544-53	3.8	12
239	Micropatterning of cells reveals chiral morphogenesis. *Stem Cell Research and Therapy*, **2013**, 4, 24	8.3	24
238	Supplementation of exogenous adenosine 5Rtriphosphate enhances mechanical properties of 3D cell-agarose constructs for cartilage tissue engineering. *Tissue Engineering - Part A*, **2013**, 19, 2188-200	3.9	18
237	Microfluidic bioreactor for dynamic regulation of early mesodermal commitment in human pluripotent stem cells. *Lab on A Chip*, **2013**, 13, 355-64	7.2	43
236	Sequential application of steady and pulsatile medium perfusion enhanced the formation of engineered bone. *Tissue Engineering - Part A*, **2013**, 19, 1244-54	3.9	10
235	Macrophages modulate the viability and growth of human mesenchymal stem cells. *Journal of Cellular Biochemistry*, **2013**, 114, 220-9	4.7	168
234	Age-related carbonylation of fibrocartilage structural proteins drives tissue degenerative modification. *Chemistry and Biology*, **2013**, 20, 922-34		39
233	Decellularization of human and porcine lung tissues for pulmonary tissue engineering. *Annals of Thoracic Surgery*, **2013**, 96, 1046-55; discussion 1055-6	2.7	164
232	Bioreactor engineering of stem cell environments. *Biotechnology Advances*, **2013**, 31, 1020-31	17.8	43
231	The effect of controlled expression of VEGF by transduced myoblasts in a cardiac patch on vascularization in a mouse model of myocardial infarction. *Biomaterials*, **2013**, 34, 393-401	15.6	65
230	Biomimetic electrical stimulation platform for neural differentiation of retinal progenitor cells. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 5666-9	0.9	3
229	Assembly of complex cell microenvironments using geometrically docked hydrogel shapes. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 4551-6	11.5	72

228	Purinergic responses of chondrogenic stem cells to dynamic loading. *Journal of the Serbian Chemical Society*, **2013**, 78, 1865-1874	0.9	4
227	Noninvasive imaging of myocyte apoptosis following application of a stem cell-engineered delivery platform to acutely infarcted myocardium. *Journal of Nuclear Medicine*, **2013**, 54, 977-83	8.9	15
226	Electrical stimulation via a biocompatible conductive polymer directs retinal progenitor cell differentiation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 1627-31	0.9	6
225	Portable bioreactor for perfusion and electrical stimulation of engineered cardiac tissue. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 6219-23	0.9	14
224	Engineering bone tissue substitutes from human induced pluripotent stem cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 8680-5	11.5	174
223	HeLiVa platform: integrated heart-liver-vascular systems for drug testing in human health and disease. *Stem Cell Research and Therapy*, **2013**, 4 Suppl 1, S8	8.3	60
222	Effects of pamidronate on human alveolar osteoblasts in vitro. *Journal of Oral and Maxillofacial Surgery*, **2012**, 70, 1081-92	1.8	32
221	Tissue engineering strategies for skeletal repair. *HSS Journal*, **2012**, 8, 57-8	2	3
220	Colloquium: Modeling the dynamics of multicellular systems: Application to tissue engineering. *Reviews of Modern Physics*, **2012**, 84, 1791-1805	40.5	31
219	Concise review: personalized human bone grafts for reconstructing head and face. *Stem Cells Translational Medicine*, **2012**, 1, 64-9	6.9	61
218	Development of silk-based scaffolds for tissue engineering of bone from human adipose-derived stem cells. *Acta Biomaterialia*, **2012**, 8, 2483-92	10.8	184
217	Bone scaffold architecture modulates the development of mineralized bone matrix by human embryonic stem cells. *Biomaterials*, **2012**, 33, 8329-42	15.6	79
216	Time-dependent processes in stem cell-based tissue engineering of articular cartilage. *Stem Cell Reviews and Reports*, **2012**, 8, 863-81	6.4	72
215	Channelled scaffolds for engineering myocardium with mechanical stimulation. *Journal of Tissue Engineering and Regenerative Medicine*, **2012**, 6, 748-56	4.4	38
214	Biomimetic perfusion and electrical stimulation applied in concert improved the assembly of engineered cardiac tissue. *Journal of Tissue Engineering and Regenerative Medicine*, **2012**, 6, e12-23	4.4	101
213	Vascular endothelial growth factor secretion by nonmyocytes modulates Connexin-43 levels in cardiac organoids. *Tissue Engineering - Part A*, **2012**, 18, 1771-83	3.9	35
212	Engineering bone tissue from human embryonic stem cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 8705-9	11.5	127
211	Optimizing dynamic interactions between a cardiac patch and inflammatory host cells. *Cells Tissues Organs*, **2012**, 195, 171-82	2.1	31

210	Biofabrication enables efficient interrogation and optimization of sequential culture of endothelial cells, fibroblasts and cardiomyocytes for formation of vascular cords in cardiac tissue engineering. *Biofabrication*, **2012**, 4, 035002	10.5	27
209	Bioreactors in Tissue Engineering **2012**, 217-227		2
208	Myocardial Regeneration through Tissue Engineering. *FASEB Journal*, **2012**, 26, 459.4	0.9	
207	Composite scaffold provides a cell delivery platform for cardiovascular repair. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 7974-9	11.5	218
206	Bioreactor cultivation of functional bone grafts. *Methods in Molecular Biology*, **2011**, 698, 231-41	1.4	18
205	Micropatterned mammalian cells exhibit phenotype-specific left-right asymmetry. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 12295-300	11.5	160
204	Bioengineering heart muscle: a paradigm for regenerative medicine. *Annual Review of Biomedical Engineering*, **2011**, 13, 245-67	12	150
203	Biomimetic platforms for human stem cell research. *Cell Stem Cell*, **2011**, 8, 252-61	18	115
202	Engineering tissue with BioMEMS. *IEEE Pulse*, **2011**, 2, 28-34	0.7	10
201	Adipose tissue as a stem cell source for musculoskeletal regeneration. *Frontiers in Bioscience - Scholar*, **2011**, 3, 69-81	2.4	43
200	Derivation of two new human embryonic stem cell lines from nonviable human embryos. *Stem Cells International*, **2011**, 2011, 765378	5	17
199	Potential pathophysiological mechanisms in osteonecrosis of the jaw. *Annals of the New York Academy of Sciences*, **2011**, 1218, 62-79	6.5	115
198	Nucleation and growth of mineralized bone matrix on silk-hydroxyapatite composite scaffolds. *Biomaterials*, **2011**, 32, 2812-20	15.6	211
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196	Optimization of electrical stimulation parameters for cardiac tissue engineering. *Journal of Tissue Engineering and Regenerative Medicine*, **2011**, 5, e115-25	4.4	105
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