Dietmar Werner Hutmacher

List of Publications by Citations

484 papers	42,812 citations	99 h-index	195 g-index
536 ext. papers	47,591 ext. citations	7.3 avg, IF	7.92 L-index

#	Paper	IF	Citations
484	Scaffolds in tissue engineering bone and cartilage. *Biomaterials*, **2000**, 21, 2529-43	15.6	3876
483	The return of a forgotten polymerPolycaprolactone in the 21st century. *Progress in Polymer Science*, **2010**, 35, 1217-1256	29.6	2525
482	Fused deposition modeling of novel scaffold architectures for tissue engineering applications. *Biomaterials*, **2002**, 23, 1169-85	15.6	1347
481	25th anniversary article: Engineering hydrogels for biofabrication. *Advanced Materials*, **2013**, 25, 5011-28	24	1194
480	Scaffold design and fabrication technologies for engineering tissues--state of the art and future perspectives. *Journal of Biomaterials Science, Polymer Edition*, **2001**, 12, 107-24	3.5	1051
479	Mechanical properties and cell cultural response of polycaprolactone scaffolds designed and fabricated via fused deposition modeling. *Journal of Biomedical Materials Research Part B*, **2001**, 55, 203-16		1044
478	Scaffold-based tissue engineering: rationale for computer-aided design and solid free-form fabrication systems. *Trends in Biotechnology*, **2004**, 22, 354-62	15.1	888
477	Additive manufacturing of tissues and organs. *Progress in Polymer Science*, **2012**, 37, 1079-1104	29.6	841
476	State of the art and future directions of scaffold-based bone engineering from a biomaterials perspective. *Journal of Tissue Engineering and Regenerative Medicine*, **2007**, 1, 245-60	4.4	718
475	Gelatin-methacrylamide hydrogels as potential biomaterials for fabrication of tissue-engineered cartilage constructs. *Macromolecular Bioscience*, **2013**, 13, 551-61	5.5	507
474	Direct writing by way of melt electrospinning. *Advanced Materials*, **2011**, 23, 5651-7	24	480
473	Electro-spinning of pure collagen nano-fibres - just an expensive way to make gelatin?. *Biomaterials*, **2008**, 29, 2293-305	15.6	472
472	Reinforcement of hydrogels using three-dimensionally printed microfibres. *Nature Communications*, **2015**, 6, 6933	17.4	464
471	Scaffold development using 3D printing with a starch-based polymer. *Materials Science and Engineering C*, **2002**, 20, 49-56	8.3	464
470	Bioengineered 3D platform to explore cell-ECM interactions and drug resistance of epithelial ovarian cancer cells. *Biomaterials*, **2010**, 31, 8494-506	15.6	455
469	Bone Regeneration Based on Tissue Engineering Conceptions - A 21st Century Perspective. *Bone Research*, **2013**, 1, 216-48	13.3	449
468	Design, fabrication and characterization of PCL electrospun scaffolds review. *Journal of Materials Chemistry*, **2011**, 21, 9419		424

467	An alginate-based hybrid system for growth factor delivery in the functional repair of large bone defects. *Biomaterials*, **2011**, 32, 65-74	15.6	397
466	Functionalization, preparation and use of cell-laden gelatin methacryloyl-based hydrogels as modular tissue culture platforms. *Nature Protocols*, **2016**, 11, 727-46	18.8	391
465	A comparison of micro CT with other techniques used in the characterization of scaffolds. *Biomaterials*, **2006**, 27, 1362-76	15.6	382
464	Evaluation of polycaprolactone scaffold degradation for 6 months in vitro and in vivo. *Journal of Biomedical Materials Research - Part A*, **2009**, 90, 906-19	5.4	369
463	Biodegradable polymers applied in tissue engineering research: a review. *Polymer International*, **2007**, 56, 145-157	3.3	357
462	How smart do biomaterials need to be? A translational science and clinical point of view. *Advanced Drug Delivery Reviews*, **2013**, 65, 581-603	18.5	350
461	A novel 3D mammalian cell perfusion-culture system in microfluidic channels. *Lab on A Chip*, **2007**, 7, 302-9	7.2	346
460	Identification of common pathways mediating differentiation of bone marrow- and adipose tissue-derived human mesenchymal stem cells into three mesenchymal lineages. *Stem Cells*, **2007**, 25, 750-60	5.8	320
459	Assessment of bone ingrowth into porous biomaterials using MICRO-CT. *Biomaterials*, **2007**, 28, 2491-504	15.6	313
458	Dynamics of in vitro polymer degradation of polycaprolactone-based scaffolds: accelerated versus simulated physiological conditions. *Biomedical Materials (Bristol)*, **2008**, 3, 034108	3.5	306
457	Melt electrospinning today: An opportune time for an emerging polymer process. *Progress in Polymer Science*, **2016**, 56, 116-166	29.6	291
456	The challenge of establishing preclinical models for segmental bone defect research. *Biomaterials*, **2009**, 30, 2149-63	15.6	284
455	The correlation of pore morphology, interconnectivity and physical properties of 3D ceramic scaffolds with bone ingrowth. *Biomaterials*, **2009**, 30, 1440-51	15.6	252
454	Biomaterials offer cancer research the third dimension. *Nature Materials*, **2010**, 9, 90-3	27	247
453	A tissue engineering solution for segmental defect regeneration in load-bearing long bones. *Science Translational Medicine*, **2012**, 4, 141ra93	17.5	241
452	Tissue engineering of articular cartilage with biomimetic zones. *Tissue Engineering - Part B: Reviews*, **2009**, 15, 143-57	7.9	237
451	A biomimetic extracellular matrix for cartilage tissue engineering centered on photocurable gelatin, hyaluronic acid and chondroitin sulfate. *Acta Biomaterialia*, **2014**, 10, 214-23	10.8	234
450	Melt electrospinning. *Chemistry - an Asian Journal*, **2011**, 6, 44-56	4.5	230

449	Fabrication of 3D chitosan-hydroxyapatite scaffolds using a robotic dispensing system. *Materials Science and Engineering C*, **2002**, 20, 35-42	8.3	223
448	Electrospraying, a Reproducible Method for Production of Polymeric Microspheres for Biomedical Applications. *Polymers*, **2011**, 3, 131-149	4.5	221
447	Combining electrospun scaffolds with electrosprayed hydrogels leads to three-dimensional cellularization of hybrid constructs. *Biomacromolecules*, **2008**, 9, 2097-103	6.9	212
446	Concepts of scaffold-based tissue engineering--the rationale to use solid free-form fabrication techniques. *Journal of Cellular and Molecular Medicine*, **2007**, 11, 654-69	5.6	207
445	Coating of biomaterial scaffolds with the collagen-mimetic peptide GFOGER for bone defect repair. *Biomaterials*, **2010**, 31, 2574-82	15.6	191
444	Can tissue engineering concepts advance tumor biology research?. *Trends in Biotechnology*, **2010**, 28, 125-33	15.1	185
443	Repair and regeneration of osteochondral defects in the articular joints. *New Biotechnology*, **2007**, 24, 489-95		176
442	Electrospinning and additive manufacturing: converging technologies. *Biomaterials Science*, **2013**, 1, 171-185	7.4	175
441	The stimulation of healing within a rat calvarial defect by mPCL-TCP/collagen scaffolds loaded with rhBMP-2. *Biomaterials*, **2009**, 30, 2479-88	15.6	175
440	Evaluation of a hybrid scaffold/cell construct in repair of high-load-bearing osteochondral defects in rabbits. *Biomaterials*, **2006**, 27, 1071-80	15.6	175
439	The three-dimensional vascularization of growth factor-releasing hybrid scaffold of poly (epsilon-caprolactone)/collagen fibers and hyaluronic acid hydrogel. *Biomaterials*, **2011**, 32, 8108-17	15.6	170
438	Combined marrow stromal cell-sheet techniques and high-strength biodegradable composite scaffolds for engineered functional bone grafts. *Biomaterials*, **2007**, 28, 814-24	15.6	170
437	A biphasic scaffold design combined with cell sheet technology for simultaneous regeneration of alveolar bone/periodontal ligament complex. *Biomaterials*, **2012**, 33, 5560-73	15.6	163
436	Repair of calvarial defects with customised tissue-engineered bone grafts II. Evaluation of cellular efficiency and efficacy in vivo. *Tissue Engineering*, **2003**, 9 Suppl 1, S127-39		162
435	Evaluation of ultra-thin poly(epsilon-caprolactone) films for tissue-engineered skin. *Tissue Engineering*, **2001**, 7, 441-55		161
434	Periosteal cells in bone tissue engineering. *Tissue Engineering*, **2003**, 9 Suppl 1, S45-64		160
433	Repair of large articular osteochondral defects using hybrid scaffolds and bone marrow-derived mesenchymal stem cells in a rabbit model. *Tissue Engineering*, **2006**, 12, 1539-51		158
432	Novel PCL-based honeycomb scaffolds as drug delivery systems for rhBMP-2. *Biomaterials*, **2005**, 26, 3739-48	15.6	158

431	Computational fluid dynamics for improved bioreactor design and 3D culture. *Trends in Biotechnology*, **2008**, 26, 166-72	15.1	157
430	Design and fabrication of tubular scaffolds via direct writing in a melt electrospinning mode. *Biointerphases*, **2012**, 7, 13	1.8	151
429	In vitro characterization of natural and synthetic dermal matrices cultured with human dermal fibroblasts. *Biomaterials*, **2004**, 25, 2807-18	15.6	151
428	Development and characterisation of a new bioink for additive tissue manufacturing. *Journal of Materials Chemistry B*, **2014**, 2, 2282-2289	7.3	150
427	Analysis of 3D bone ingrowth into polymer scaffolds via micro-computed tomography imaging. *Biomaterials*, **2004**, 25, 4947-54	15.6	150
426	Degradation mechanisms of polycaprolactone in the context of chemistry, geometry and environment. *Progress in Polymer Science*, **2019**, 96, 1-20	29.6	147
425	Current strategies for cell delivery in cartilage and bone regeneration. *Current Opinion in Biotechnology*, **2004**, 15, 411-8	11.4	147
424	Multi-parametric hydrogels support 3D in vitro bioengineered microenvironment models of tumour angiogenesis. *Biomaterials*, **2015**, 53, 609-20	15.6	145
423	Osteogenic induction of human bone marrow-derived mesenchymal progenitor cells in novel synthetic polymer-hydrogel matrices. *Tissue Engineering*, **2003**, 9, 689-702		145
422	Comparison of the degradation of polycaprolactone and polycaprolactone–(tricalcium phosphate) scaffolds in alkaline medium. *Polymer International*, **2007**, 56, 718-728	3.3	144
421	Dermal fibroblast infiltration of poly(ε-caprolactone) scaffolds fabricated by melt electrospinning in a direct writing mode. *Biofabrication*, **2013**, 5, 025001	10.5	143
420	Three-Dimensional Bioprinting for Regenerative Dentistry and Craniofacial Tissue Engineering. *Journal of Dental Research*, **2015**, 94, 143S-52S	8.1	142
419	Multiphasic scaffolds for periodontal tissue engineering. *Journal of Dental Research*, **2014**, 93, 1212-21	8.1	140
418	Advanced tissue engineering scaffold design for regeneration of the complex hierarchical periodontal structure. *Journal of Clinical Periodontology*, **2014**, 41, 283-94	7.7	138
417	Melt electrospinning and its technologization in tissue engineering. *Tissue Engineering - Part B: Reviews*, **2015**, 21, 187-202	7.9	138
416	Discrepancies between metabolic activity and DNA content as tool to assess cell proliferation in cancer research. *Journal of Cellular and Molecular Medicine*, **2010**, 14, 1003-13	5.6	135
415	The challenge to measure cell proliferation in two and three dimensions. *Tissue Engineering*, **2005**, 11, 182-91		134
414	In vivo efficacy of bone-marrow-coated polycaprolactone scaffolds for the reconstruction of orbital defects in the pig. *Journal of Biomedical Materials Research Part B*, **2003**, 66, 574-80		132

413	Gelatine methacrylamide-based hydrogels: an alternative three-dimensional cancer cell culture system. *Acta Biomaterialia*, **2014**, 10, 2551-62	10.8	130
412	Melt Electrospinning Writing of Highly Ordered Large Volume Scaffold Architectures. *Advanced Materials*, **2018**, 30, e1706570	24	127
411	Melt electrospinning of poly(εcaprolactone) scaffolds: phenomenological observations associated with collection and direct writing. *Materials Science and Engineering C*, **2014**, 45, 698-708	8.3	125
410	Human corneal epithelial equivalents constructed on Bombyx mori silk fibroin membranes. *Biomaterials*, **2011**, 32, 5086-91	15.6	124
409	Strategies for zonal cartilage repair using hydrogels. *Macromolecular Bioscience*, **2009**, 9, 1049-58	5.5	120
408	Effect of culture conditions and calcium phosphate coating on ectopic bone formation. *Biomaterials*, **2013**, 34, 5538-51	15.6	119
407	Bone tissue engineering: from bench to bedside. *Materials Today*, **2012**, 15, 430-435	21.8	118
406	Autocrine fibroblast growth factor 2 increases the multipotentiality of human adipose-derived mesenchymal stem cells. *Stem Cells*, **2008**, 26, 1598-608	5.8	118
405	The potential role of lycopene for the prevention and therapy of prostate cancer: from molecular mechanisms to clinical evidence. *International Journal of Molecular Sciences*, **2013**, 14, 14620-46	6.3	117
404	Differences between in vitro viability and differentiation and in vivo bone-forming efficacy of human mesenchymal stem cells cultured on PCL-TCP scaffolds. *Biomaterials*, **2010**, 31, 7960-70	15.6	117
403	Spatiotemporal delivery of bone morphogenetic protein enhances functional repair of segmental bone defects. *Bone*, **2011**, 49, 485-92	4.7	116
402	Animal models for bone tissue engineering and modelling disease. *DMM Disease Models and Mechanisms*, **2018**, 11,	4.1	114
401	Degradation and cell culture studies on block copolymers prepared by ring opening polymerization of epsilon-caprolactone in the presence of poly(ethylene glycol). *Journal of Biomedical Materials Research Part B*, **2004**, 69, 417-27		113
400	In vivo mesenchymal cell recruitment by a scaffold loaded with transforming growth factor beta1 and the potential for in situ chondrogenesis. *Tissue Engineering*, **2002**, 8, 469-82		113
399	In vitro and in vivo bone formation potential of surface calcium phosphate-coated polycaprolactone and polycaprolactone/bioactive glass composite scaffolds. *Acta Biomaterialia*, **2016**, 30, 319-333	10.8	112
398	Engineered silk fibroin protein 3D matrices for in vitro tumor model. *Biomaterials*, **2011**, 32, 2149-59	15.6	112
397	A comparative analysis of scaffold material modifications for load-bearing applications in bone tissue engineering. *International Journal of Oral and Maxillofacial Surgery*, **2006**, 35, 928-34	2.9	112
396	Application of micro CT and computation modeling in bone tissue engineering. *CAD Computer Aided Design*, **2005**, 37, 1151-1161	2.9	110

395	Co-culture of bone marrow fibroblasts and endothelial cells on modified polycaprolactone substrates for enhanced potentials in bone tissue engineering. *Tissue Engineering*, **2006**, 12, 2521-31		109
394	The Next Frontier in Melt Electrospinning: Taming the Jet. *Advanced Functional Materials*, **2019**, 29, 1904664	15.6	106
393	Translating tissue engineering technology platforms into cancer research. *Journal of Cellular and Molecular Medicine*, **2009**, 13, 1417-27	5.6	106
392	Repair of calvarial defects with customized tissue-engineered bone grafts I. Evaluation of osteogenesis in a three-dimensional culture system. *Tissue Engineering*, **2003**, 9 Suppl 1, S113-26		105
391	Evaluation of a new bioresorbable barrier to facilitate guided bone regeneration around exposed implant threads. An experimental study in the monkey. *International Journal of Oral and Maxillofacial Surgery*, **1998**, 27, 315-20	2.9	103
390	Biofabricated soft network composites for cartilage tissue engineering. *Biofabrication*, **2017**, 9, 025014	10.5	100
389	Osteogenic differentiation of mesenchymal progenitor cells in computer designed fibrin-polymer-ceramic scaffolds manufactured by fused deposition modeling. *Journal of Materials Science: Materials in Medicine*, **2005**, 16, 807-19	4.5	100
388	A tissue-engineered humanized xenograft model of human breast cancer metastasis to bone. *DMM Disease Models and Mechanisms*, **2014**, 7, 299-309	4.1	99
387	Silk fibroin in ocular tissue reconstruction. *Biomaterials*, **2011**, 32, 2445-58	15.6	99
386	The effect of rhBMP-2 on canine osteoblasts seeded onto 3D bioactive polycaprolactone scaffolds. *Biomaterials*, **2004**, 25, 5499-506	15.6	99
385	Direct writing of chitosan scaffolds using a robotic system. *Rapid Prototyping Journal*, **2005**, 11, 90-97	3.8	99
384	Examination of the foreign body response to biomaterials by nonlinear intravital microscopy. *Nature Biomedical Engineering*, **2016**, 1,	19	98
383	Custom-made composite scaffolds for segmental defect repair in long bones. *International Orthopaedics*, **2011**, 35, 1229-36	3.8	98
382	The effect of unlocking RGD-motifs in collagen I on pre-osteoblast adhesion and differentiation. *Biomaterials*, **2010**, 31, 2827-35	15.6	98
381	Structural analysis of photocrosslinkable methacryloyl-modified protein derivatives. *Biomaterials*, **2017**, 139, 163-171	15.6	96
380	Mineralized human primary osteoblast matrices as a model system to analyse interactions of prostate cancer cells with the bone microenvironment. *Biomaterials*, **2010**, 31, 7928-36	15.6	96
379	The influence of cellular source on periodontal regeneration using calcium phosphate coated polycaprolactone scaffold supported cell sheets. *Biomaterials*, **2014**, 35, 113-22	15.6	95
378	Polycaprolactone scaffold and reduced rhBMP-7 dose for the regeneration of critical-sized defects in sheep tibiae. *Biomaterials*, **2013**, 34, 9960-8	15.6	92

377	Hyaluronic acid enhances the mechanical properties of tissue-engineered cartilage constructs. *PLoS ONE*, **2014**, 9, e113216	3.7	92
376	Engineering Anisotropic Muscle Tissue using Acoustic Cell Patterning. *Advanced Materials*, **2018**, 30, e1802649	24	92
375	Fabrication using a rapid prototyping system and in vitro characterization of PEG-PCL-PLA scaffolds for tissue engineering. *Journal of Biomaterials Science, Polymer Edition*, **2005**, 16, 1595-610	3.5	91
374	Preliminary study on the adhesion and proliferation of human osteoblasts on starch-based scaffolds. *Materials Science and Engineering C*, **2002**, 20, 27-33	8.3	91
373	Neurological heterotopic ossification following spinal cord injury is triggered by macrophage-mediated inflammation in muscle. *Journal of Pathology*, **2015**, 236, 229-40	9.4	89
372	Reduced contraction of skin equivalent engineered using cell sheets cultured in 3D matrices. *Biomaterials*, **2006**, 27, 4591-8	15.6	89
371	Enhancing structural integrity of hydrogels by using highly organised melt electrospun fibre constructs. *European Polymer Journal*, **2015**, 72, 451-463	5.2	87
370	Noninvasive image analysis of 3D construct mineralization in a perfusion bioreactor. *Biomaterials*, **2007**, 28, 2525-33	15.6	87
369	Biological performance of a polycaprolactone-based scaffold used as fusion cage device in a large animal model of spinal reconstructive surgery. *Biomaterials*, **2009**, 30, 5086-93	15.6	86
368	Flow modelling within a scaffold under the influence of uni-axial and bi-axial bioreactor rotation. *Journal of Biotechnology*, **2005**, 119, 181-96	3.7	86
367	A dual-layer silk fibroin scaffold for reconstructing the human corneal limbus. *Biomaterials*, **2012**, 33, 3529-38	15.6	83
366	Processing of polycaprolactone and polycaprolactone-based copolymers into 3D scaffolds, and their cellular responses. *Tissue Engineering - Part A*, **2009**, 15, 3013-24	3.9	83
365	Species-specific homing mechanisms of human prostate cancer metastasis in tissue engineered bone. *Biomaterials*, **2014**, 35, 4108-15	15.6	82
364	Melt electrospinning of polycaprolactone and its blends with poly(ethylene glycol). *Polymer International*, **2010**, 59, 1558-1562	3.3	82
363	The influence of fibrin based hydrogels on the chondrogenic differentiation of human bone marrow stromal cells. *Biomaterials*, **2010**, 31, 38-47	15.6	81
362	Biologically Inspired Scaffolds for Heart Valve Tissue Engineering via Melt Electrowriting. *Small*, **2019**, 15, e1900873	11	80
361	Porous scaffold architecture guides tissue formation. *Journal of Bone and Mineral Research*, **2012**, 27, 1275-88	6.3	80
360	Concise review: humanized models of tumor immunology in the 21st century: convergence of cancer research and tissue engineering. *Stem Cells*, **2015**, 33, 1696-704	5.8	78

359	Response of cells on surface-induced nanopatterns: fibroblasts and mesenchymal progenitor cells. *Biomacromolecules*, **2007**, 8, 1530-40	6.9	76
358	Degradation characteristics of poly(?-caprolactone)-based copolymers and blends. *Journal of Applied Polymer Science*, **2006**, 102, 1681-1687	2.9	76
357	Sustained regeneration of high-volume adipose tissue for breast reconstruction using computer aided design and biomanufacturing. *Biomaterials*, **2015**, 52, 551-60	15.6	75
356	Heparan sulfate mediates the proliferation and differentiation of rat mesenchymal stem cells. *Stem Cells and Development*, **2009**, 18, 661-70	4.4	75
355	Engineering a humanized bone organ model in mice to study bone metastases. *Nature Protocols*, **2017**, 12, 639-663	18.8	74
354	Scaffold-based bone engineering by using genetically modified cells. *Gene*, **2005**, 347, 1-10	3.8	74
353	Induction of Ectopic Bone Formation by Using Human Periosteal Cells in Combination with a Novel Scaffold Technology. *Cell Transplantation*, **2002**, 11, 125-138	4	74
352	In vitro pre-vascularisation of tissue-engineered constructs A co-culture perspective. *Vascular Cell*, **2014**, 6, 13	1	72
351	Autologous vs. allogenic mesenchymal progenitor cells for the reconstruction of critical sized segmental tibial bone defects in aged sheep. *Acta Biomaterialia*, **2013**, 9, 7874-84	10.8	72
350	Comparative study of depth-dependent characteristics of equine and human osteochondral tissue from the medial and lateral femoral condyles. *Osteoarthritis and Cartilage*, **2012**, 20, 1147-51	6.2	72
349	Vitrification as a prospect for cryopreservation of tissue-engineered constructs. *Biomaterials*, **2007**, 28, 1585-96	15.6	72
348	Composite electrospun scaffolds for engineering tubular bone grafts. *Tissue Engineering - Part A*, **2009**, 15, 3779-88	3.9	70
347	In vitro bone engineering based on polycaprolactone and polycaprolactonetricalcium phosphate composites. *Polymer International*, **2007**, 56, 333-342	3.3	70
346	Dynamic compression improves biosynthesis of human zonal chondrocytes from osteoarthritis patients. *Osteoarthritis and Cartilage*, **2012**, 20, 906-15	6.2	69
345	Elastic cartilage engineering using novel scaffold architectures in combination with a biomimetic cell carrier. *Biomaterials*, **2003**, 24, 4445-58	15.6	69
344	Microrobotics and MEMS-based fabrication techniques for scaffold-based tissue engineering. *Macromolecular Bioscience*, **2005**, 5, 477-89	5.5	69
343	Tissue engineered periodontal products. *Journal of Periodontal Research*, **2016**, 51, 1-15	4.3	69
342	Perspectives in multiphasic osteochondral tissue engineering. *Anatomical Record*, **2014**, 297, 26-35	2.1	68

341	Fabrication and in vitro characterization of bioactive glass composite scaffolds for bone regeneration. *Biofabrication*, **2013**, 5, 045005	10.5	68
340	Absolute quantification of gene expression in biomaterials research using real-time PCR. *Biomaterials*, **2007**, 28, 203-10	15.6	68
339	Developing macroporous bicontinuous materials as scaffolds for tissue engineering. *Biomaterials*, **2005**, 26, 5609-16	15.6	68
338	Using extracellular matrix for regenerative medicine in the spinal cord. *Biomaterials*, **2013**, 34, 4945-55	15.6	67
337	Phenotypic characterization of prostate cancer LNCaP cells cultured within a bioengineered microenvironment. *PLoS ONE*, **2012**, 7, e40217	3.7	67
336	An Integrated Design, Material, and Fabrication Platform for Engineering Biomechanically and Biologically Functional Soft Tissues. *ACS Applied Materials & Interfaces*, **2017**, 9, 29430-29437	9.5	66
335	Cavin-1/PTRF alters prostate cancer cell-derived extracellular vesicle content and internalization to attenuate extracellular vesicle-mediated osteoclastogenesis and osteoblast proliferation. *Journal of Extracellular Vesicles*, **2014**, 3,	16.4	65
334	The evaluation of a biphasic osteochondral implant coupled with an electrospun membrane in a large animal model. *Tissue Engineering - Part A*, **2010**, 16, 1123-41	3.9	65
333	3D printed Polycaprolactone scaffolds with dual macro-microporosity for applications in local delivery of antibiotics. *Materials Science and Engineering C*, **2018**, 87, 78-89	8.3	64
332	Single-cell force spectroscopy, an emerging tool to quantify cell adhesion to biomaterials. *Tissue Engineering - Part B: Reviews*, **2014**, 20, 40-55	7.9	63
331	Periosteum tissue engineering in an orthotopic in vivo platform. *Biomaterials*, **2017**, 121, 193-204	15.6	62
330	Scaffolds for Growth Factor Delivery as Applied to Bone Tissue Engineering. *International Journal of Polymer Science*, **2012**, 2012, 1-25	2.4	62
329	A novel bioreactor system for biaxial mechanical loading enhances the properties of tissue-engineered human cartilage. *Scientific Reports*, **2017**, 7, 16997	4.9	61
328	Additive Biomanufacturing: An Advanced Approach for Periodontal Tissue Regeneration. *Annals of Biomedical Engineering*, **2017**, 45, 12-22	4.7	61
327	Biomimetic tubular nanofiber mesh and platelet rich plasma-mediated delivery of BMP-7 for large bone defect regeneration. *Cell and Tissue Research*, **2012**, 347, 603-12	4.2	60
326	Interactions between human osteoblasts and prostate cancer cells in a novel 3D in vitro model. *Organogenesis*, **2010**, 6, 181-8	1.7	60
325	Amniotic fluid stem cells produce robust mineral deposits on biodegradable scaffolds. *Tissue Engineering - Part A*, **2009**, 15, 3129-38	3.9	60
324	Establishment of a preclinical ovine model for tibial segmental bone defect repair by applying bone tissue engineering strategies. *Tissue Engineering - Part B: Reviews*, **2010**, 16, 93-104	7.9	59

323	Melt electrospinning onto cylinders: effects of rotational velocity and collector diameter on morphology of tubular structures. *Polymer International*, **2015**, 64, 1086-1095	3.3	58
322	Poly(ε-caprolactone) films as a potential substrate for tissue engineering an epidermal equivalent. *Materials Science and Engineering C*, **2002**, 20, 71-75	8.3	58
321	An introduction to biodegradable materials for tissue engineering applications. *Annals of the Academy of Medicine, Singapore*, **2001**, 30, 183-91	2.8	58
320	Viability and adipogenic potential of human adipose tissue processed cell population obtained from pump-assisted and syringe-assisted liposuction. *Journal of Dermatological Science*, **2005**, 37, 169-76	4.3	57
319	Scaffolds in tissue engineering bone and cartilage **2000**, 175-189		57
318	Effect of gelatin source and photoinitiator type on chondrocyte redifferentiation in gelatin methacryloyl-based tissue-engineered cartilage constructs. *Journal of Materials Chemistry B*, **2019**, 7, 1761-1772	7.3	56
317	Improved fabrication of melt electrospun tissue engineering scaffolds using direct writing and advanced electric field control. *Biointerphases*, **2015**, 10, 011006	1.8	56
316	Tissue Engineered Constructs for Periodontal Regeneration: Current Status and Future Perspectives. *Advanced Healthcare Materials*, **2018**, 7, e1800457	10.1	55
315	Influences of age and mechanical stability on volume, microstructure, and mineralization of the fracture callus during bone healing: is osteoclast activity the key to age-related impaired healing?. *Bone*, **2010**, 47, 219-28	4.7	54
314	In vivo evaluation of an ultra-thin polycaprolactone film as a wound dressing. *Journal of Biomaterials Science, Polymer Edition*, **2007**, 18, 925-38	3.5	54
313	Tissue engineered humanized bone supports human hematopoiesis in vivo. *Biomaterials*, **2015**, 61, 103-14	15.6	53
312	Substrate topography: A valuable in vitro tool, but a clinical red herring for in vivo tenogenesis. *Acta Biomaterialia*, **2015**, 27, 3-12	10.8	52
311	PLGA-Based Microparticles for the Sustained Release of BMP-2. *Polymers*, **2011**, 3, 571-586	4.5	52
310	Endosteal-like extracellular matrix expression on melt electrospun written scaffolds. *Acta Biomaterialia*, **2017**, 52, 145-158	10.8	51
309	Transformation of Breast Reconstruction via Additive Biomanufacturing. *Scientific Reports*, **2016**, 6, 28030	4.9	51
308	Guided bone regeneration around dental implants in the atrophic alveolar ridge using a bioresorbable barrier. An experimental study in the monkey. *Clinical Oral Implants Research*, **1997**, 8, 323-31	4.8	51
307	Rational Design of Mouse Models for Cancer Research. *Trends in Biotechnology*, **2018**, 36, 242-251	15.1	50
306	Cryopreservation of alginate-fibrin beads involving bone marrow derived mesenchymal stromal cells by vitrification. *Biomaterials*, **2009**, 30, 336-43	15.6	50

305	Periodontal Tissue Engineering with a Multiphasic Construct and Cell Sheets. *Journal of Dental Research*, **2019**, 98, 673-681	8.1	48
304	Hydrogels as Drug Delivery Systems: A Review of Current Characterization and Evaluation Techniques. *Pharmaceutics*, **2020**, 12,	6.4	48
303	Paracrine interactions between LNCaP prostate cancer cells and bioengineered bone in 3D in vitro culture reflect molecular changes during bone metastasis. *Bone*, **2014**, 63, 121-31	4.7	48
302	Multiphasic construct studied in an ectopic osteochondral defect model. *Journal of the Royal Society Interface*, **2014**, 11, 20140184	4.1	48
301	Current developments in multifunctional smart materials for 3D/4D bioprinting. *Current Opinion in Biomedical Engineering*, **2017**, 2, 67-75	4.4	47
300	Chondrocyte redifferentiation and construct mechanical property development in single-component photocrosslinkable hydrogels. *Journal of Biomedical Materials Research - Part A*, **2014**, 102, 2544-53	5.4	47
299	Delayed minimally invasive injection of allogenic bone marrow stromal cell sheets regenerates large bone defects in an ovine preclinical animal model. *Stem Cells Translational Medicine*, **2015**, 4, 503-12	6.9	46
298	Simultaneous biaxial drawing of poly (?-caprolactone) films. *Polymer*, **2000**, 41, 5855-5864	3.9	46
297	Enhancement of bone ingrowth into a porous hydroxylapatite-matrix using a resorbable polylactic membrane: an experimental pilot study. *Journal of Oral and Maxillofacial Surgery*, **1994**, 52, 57-63	1.8	46
296	Selenium nanoparticles as anti-infective implant coatings for trauma orthopedics against methicillin-resistant and : in vitro and in vivo assessment. *International Journal of Nanomedicine*, **2019**, 14, 4613-4624	7.3	45
295	Effects of scaffold architecture on cranial bone healing. *International Journal of Oral and Maxillofacial Surgery*, **2014**, 43, 506-13	2.9	45
294	A bioengineered microenvironment to quantitatively measure the tumorigenic properties of cancer-associated fibroblasts in human prostate cancer. *Biomaterials*, **2013**, 34, 4777-85	15.6	45
293	Long-term effects of hydrogel properties on human chondrocyte behavior. *Soft Matter*, **2010**, 6, 5175	3.6	45
292	Does seeding density affect in vitro mineral nodules formation in novel composite scaffolds?. *Journal of Biomedical Materials Research - Part A*, **2006**, 78, 183-93	5.4	45
291	Biomaterials/Scaffolds. *Methods in Molecular Medicine*, **2007**, 101-124		45
290	Polylactides in additive biomanufacturing. *Advanced Drug Delivery Reviews*, **2016**, 107, 228-246	18.5	45
289	Additive manufacturing in biomedical sciences and the need for definitions and norms. *Expert Review of Medical Devices*, **2015**, 12, 537-43	3.5	44
288	CAD/CAM-assisted breast reconstruction. *Biofabrication*, **2011**, 3, 034114	10.5	44

287	A bioengineered 3D ovarian cancer model for the assessment of peptidase-mediated enhancement of spheroid growth and intraperitoneal spread. *Biomaterials*, **2013**, 34, 7389-400	15.6	43
286	Growth of confined cancer spheroids: a combined experimental and mathematical modelling approach. *Integrative Biology (United Kingdom)*, **2013**, 5, 597-605	3.7	43
285	Immunosuppressive properties of mesenchymal stromal cell cultures derived from the limbus of human and rabbit corneas. *Cytotherapy*, **2014**, 16, 64-73	4.8	42
284	Application of a polyelectrolyte complex coacervation method to improve seeding efficiency of bone marrow stromal cells in a 3D culture system. *Biomaterials*, **2005**, 26, 4149-60	15.6	42
283	Rational design and fabrication of multiphasic soft network composites for tissue engineering articular cartilage: A numerical model-based approach. *Chemical Engineering Journal*, **2018**, 340, 15-23	14.7	41
282	Cartilage regeneration using zonal chondrocyte subpopulations: a promising approach or an overcomplicated strategy?. *Journal of Tissue Engineering and Regenerative Medicine*, **2015**, 9, 669-78	4.4	41
281	Nanofiber orientation and surface functionalization modulate human mesenchymal stem cell behavior in vitro. *Tissue Engineering - Part A*, **2014**, 20, 398-409	3.9	41
280	Mineralization capacity of Runx2/Cbfa1-genetically engineered fibroblasts is scaffold dependent. *Biomaterials*, **2006**, 27, 5535-45	15.6	41
279	Cranioplasty after trephination using a novel biodegradable burr hole cover: technical case report. *Operative Neurosurgery*, **2006**, 58, ONS-E176; discussion ONS-E176	1.6	41
278	Antimicrobial and Immunomodulatory Surface-Functionalized Electrospun Membranes for Bone Regeneration. *Advanced Healthcare Materials*, **2017**, 6, 1601345	10.1	40
277	Targeted camptothecin delivery via silicon nanoparticles reduces breast cancer metastasis. *Biomaterials*, **2020**, 240, 119791	15.6	40
276	Decellularized periodontal ligament cell sheets with recellularization potential. *Journal of Dental Research*, **2014**, 93, 1313-9	8.1	40
275	Biofabrication of customized bone grafts by combination of additive manufacturing and bioreactor knowhow. *Biofabrication*, **2014**, 6, 035006	10.5	40
274	Humanised xenograft models of bone metastasis revisited: novel insights into species-specific mechanisms of cancer cell osteotropism. *Cancer and Metastasis Reviews*, **2013**, 32, 129-45	9.6	40
273	Cell sourcing for bone tissue engineering: amniotic fluid stem cells have a delayed, robust differentiation compared to mesenchymal stem cells. *Stem Cell Research*, **2011**, 7, 17-27	1.6	40
272	Effects of Runx2 genetic engineering and in vitro maturation of tissue-engineered constructs on the repair of critical size bone defects. *Journal of Biomedical Materials Research - Part A*, **2006**, 76, 646-55	5.4	39
271	BMP delivery complements the guiding effect of scaffold architecture without altering bone microstructure in critical-sized long bone defects: A multiscale analysis. *Acta Biomaterialia*, **2015**, 23, 282-294	10.8	38
270	A humanized tissue-engineered in vivo model to dissect interactions between human prostate cancer cells and human bone. *Clinical and Experimental Metastasis*, **2014**, 31, 435-46	4.7	38

269	Sustained release and osteogenic potential of heparan sulfate-doped fibrin glue scaffolds within a rat cranial model. *Journal of Molecular Histology*, **2007**, 38, 425-33	3.3	38
268	Osteo-maturation of adipose-derived stem cells required the combined action of vitamin D3, beta-glycerophosphate, and ascorbic acid. *Biochemical and Biophysical Research Communications*, **2007**, 362, 17-24	3.4	38
267	The influence of anisotropic nano- to micro-topography on in vitro and in vivo osteogenesis. *Nanomedicine*, **2015**, 10, 693-711	5.6	37
266	Non-invasive identification of proteoglycans and chondrocyte differentiation state by Raman microspectroscopy. *Journal of Biophotonics*, **2013**, 6, 205-11	3.1	37
265	Mimicking breast cancer-induced bone metastasis in vivo: current transplantation models and advanced humanized strategies. *Cancer and Metastasis Reviews*, **2014**, 33, 721-35	9.6	36
264	Colonization and osteogenic differentiation of different stem cell sources on electrospun nanofiber meshes. *Tissue Engineering - Part A*, **2010**, 16, 3219-30	3.9	36
263	Osteogenic and adipogenic induction potential of human periodontal cells. *Journal of Periodontology*, **2008**, 79, 525-34	4.6	36
262	Scaffold curvature-mediated novel biomineralization process originates a continuous soft tissue-to-bone interface. *Acta Biomaterialia*, **2017**, 60, 64-80	10.8	35
261	Hyaluronan-based heparin-incorporated hydrogels for generation of axially vascularized bioartificial bone tissues: in vitro and in vivo evaluation in a PLDLLA-TCP-PCL-composite system. *Journal of Materials Science: Materials in Medicine*, **2011**, 22, 1279-91	4.5	34
260	Ovine bone- and marrow-derived progenitor cells and their potential for scaffold-based bone tissue engineering applications in vitro and in vivo. *Journal of Tissue Engineering and Regenerative Medicine*, **2010**, 4, 565-76	4.4	34
259	Comparison of human alveolar osteoblasts cultured on polymer-ceramic composite scaffolds and tissue culture plates. *International Journal of Oral and Maxillofacial Surgery*, **2007**, 36, 137-45	2.9	34
258	3-Dimensional functionalized polycaprolactone-hyaluronic acid hydrogel constructs for bone tissue engineering. *Journal of Clinical Periodontology*, **2017**, 44, 428-437	7.7	33
257	Intravital microscopy of osteolytic progression and therapy response of cancer lesions in the bone. *Science Translational Medicine*, **2018**, 10,	17.5	33
256	Controlling microencapsulation and release of micronized proteins using poly(ethylene glycol) and electrospraying. *European Journal of Pharmaceutics and Biopharmaceutics*, **2014**, 87, 366-77	5.7	33
255	Development of a pre-vascularized 3D scaffold-hydrogel composite graft using an arterio-venous loop for tissue engineering applications. *Journal of Biomaterials Applications*, **2012**, 27, 277-89	2.9	32
254	Development of perforated microthin poly(epsilon-caprolactone) films as matrices for membrane tissue engineering. *Journal of Biomaterials Science, Polymer Edition*, **2004**, 15, 683-700	3.5	32
253	Melt electrowriting of electroactive poly(vinylidene difluoride) fibers. *Polymer International*, **2019**, 68, 735-745	3.3	32
252	Evaluation of a tissue-engineered membrane-cell construct for guided bone regeneration. *International Journal of Oral and Maxillofacial Implants*, **2002**, 17, 161-74	2.8	32

251	Convergence of regenerative medicine and synthetic biology to develop standardized and validated models of human diseases with clinical relevance. *Current Opinion in Biotechnology*, **2015**, 35, 127-32	11.4	31
250	Priming of endothelial colony-forming cells in a mesenchymal niche improves engraftment and vasculogenic potential by initiating mesenchymal transition orchestrated by NOTCH signaling. *FASEB Journal*, **2017**, 31, 610-624	0.9	31
249	Delineating breast cancer cell interactions with engineered bone microenvironments. *Journal of Bone and Mineral Research*, **2013**, 28, 1399-411	6.3	31
248	Vitreous cryopreservation of nanofibrous tissue-engineered constructs generated using mesenchymal stromal cells. *Tissue Engineering - Part C: Methods*, **2009**, 15, 105-14	2.9	31
247	Flow modeling in a novel non-perfusion conical bioreactor. *Biotechnology and Bioengineering*, **2007**, 97, 1291-9	4.9	31
246	Addressing Patient Specificity in the Engineering of Tumor Models. *Frontiers in Bioengineering and Biotechnology*, **2019**, 7, 217	5.8	30
245	Induced Pluripotent Stem Cells: A New Frontier for Stem Cells in Dentistry. *Journal of Dental Research*, **2015**, 94, 1508-15	8.1	30
244	Customised osteotomy guides and endoprosthetic reconstruction for periacetabular tumours. *International Orthopaedics*, **2014**, 38, 1435-42	3.8	30
243	Combined expression of KLK4, KLK5, KLK6, and KLK7 by ovarian cancer cells leads to decreased adhesion and paclitaxel-induced chemoresistance. *Gynecologic Oncology*, **2012**, 127, 569-78	4.9	30
242	Effect of preculture and loading on expression of matrix molecules, matrix metalloproteinases, and cytokines by expanded osteoarthritic chondrocytes. *Arthritis and Rheumatism*, **2013**, 65, 2356-67		30
241	Snapshot: Polymer scaffolds for tissue engineering. *Biomaterials*, **2009**, 30, 701-2	15.6	30
240	Scaffold design and fabrication **2008**, 403-454		30
239	Characterization of osteogenically induced adipose tissue-derived precursor cells in 2-dimensional and 3-dimensional environments. *Cells Tissues Organs*, **2006**, 182, 1-11	2.1	30
238	Printomics: the high-throughput analysis of printing parameters applied to melt electrowriting. *Biofabrication*, **2019**, 11, 025004	10.5	30
237	Scaffold-cell bone engineering in a validated preclinical animal model: precursors vs differentiated cell source. *Journal of Tissue Engineering and Regenerative Medicine*, **2017**, 11, 2081-2089	4.4	29
236	A preclinical large-animal model for the assessment of critical-size load-bearing bone defect reconstruction. *Nature Protocols*, **2020**, 15, 877-924	18.8	29
235	Myocyte enhancer factor 2c, an osteoblast transcription factor identified by dimethyl sulfoxide (DMSO)-enhanced mineralization. *Journal of Biological Chemistry*, **2011**, 286, 30071-86	5.4	29
234	The osteogenic differentiation of adipose tissue-derived precursor cells in a 3D scaffold/matrix environment. *Current Drug Discovery Technologies*, **2008**, 5, 319-27	1.5	29

233	Breast Augmentation and Reconstruction from a Regenerative Medicine Point of View: State of the Art and Future Perspectives. *Tissue Engineering - Part B: Reviews*, **2017**, 23, 281-293	7.9	28
232	Mesodermal and neural crest derived ovine tibial and mandibular osteoblasts display distinct molecular differences. *Gene*, **2013**, 525, 99-106	3.8	28
231	Preliminary study of a polycaprolactone membrane utilized as epidermal substrate. *Journal of Materials Science: Materials in Medicine*, **2003**, 14, 113-20	4.5	28
230	Mesenchymal stem/stromal cells enhance engraftment, vasculogenic and pro-angiogenic activities of endothelial colony forming cells in immunocompetent hosts. *Scientific Reports*, **2017**, 7, 13558	4.9	27
229	The Current Versatility of Polyurethane Three-Dimensional Printing for Biomedical Applications. *Tissue Engineering - Part B: Reviews*, **2020**, 26, 272-283	7.9	27
228	Humanization of bone and bone marrow in an orthotopic site reveals new potential therapeutic targets in osteosarcoma. *Biomaterials*, **2018**, 171, 230-246	15.6	27
227	Independent Evaluation of Medical-Grade Bioresorbable Filaments for Fused Deposition Modelling/Fused Filament Fabrication of Tissue Engineered Constructs. *Polymers*, **2018**, 10,	4.5	27
226	Biological performance of a polycaprolactone-based scaffold plus recombinant human morphogenetic protein-2 (rhBMP-2) in an ovine thoracic interbody fusion model. *European Spine Journal*, **2014**, 23, 650-7	2.7	27
225	Runx2 overexpression in bone marrow stromal cells accelerates bone formation in critical-sized femoral defects. *Tissue Engineering - Part A*, **2010**, 16, 2795-808	3.9	27
224	3D printed dual macro-, microscale porous network as a tissue engineering scaffold with drug delivering function. *Biofabrication*, **2019**, 11, 035014	10.5	26
223	Evaluation of methods for cultivating limbal mesenchymal stromal cells. *Cytotherapy*, **2012**, 14, 936-47	4.8	26
222	High performance additive manufactured scaffolds for bone tissue engineering application. *Soft Matter*, **2011**, 7, 8013	3.6	26
221	Sphingosine-1-phosphate mediates proliferation maintaining the multipotency of human adult bone marrow and adipose tissue-derived stem cells. *Journal of Molecular Cell Biology*, **2010**, 2, 199-208	6.3	26
220	The use of basic fibroblast growth factor (bFGF) for enhancement of bone ingrowth into pyrolized bovine bone. *International Journal of Oral and Maxillofacial Surgery*, **1995**, 24, 181-6	2.9	26
219	3D printed lattices as an activation and expansion platform for T cell therapy. *Biomaterials*, **2017**, 140, 58-68	15.6	25
218	A collagen network phase improves cell seeding of open-pore structure scaffolds under perfusion. *Journal of Tissue Engineering and Regenerative Medicine*, **2013**, 7, 183-91	4.4	25
217	In vitro and in vivo analysis of co-electrospun scaffolds made of medical grade poly(epsilon-caprolactone) and porcine collagen. *Journal of Biomaterials Science, Polymer Edition*, **2008**, 19, 693-707	3.5	25
216	Culturing and characterization of human periodontal ligament fibroblasts preliminary study. *Materials Science and Engineering C*, **2002**, 20, 77-83	8.3	25

215	Matrices for tissue-engineered skin. *Drugs of Today*, **2002**, 38, 113-33		25
214	In vivo tracking of segmental bone defect healing reveals that callus patterning is related to early mechanical stimuli. *European Cells and Materials*, **2012**, 24, 358-71; discussion 371	4.3	25
213	A 3D tumor microenvironment regulates cell proliferation, peritoneal growth and expression patterns. *Biomaterials*, **2019**, 190-191, 63-75	15.6	25
212	The quest for mechanically and biologically functional soft biomaterials via soft network composites. *Advanced Drug Delivery Reviews*, **2018**, 132, 214-234	18.5	24
211	Engineering tubular bone constructs. *Journal of Biomechanics*, **2007**, 40 Suppl 1, S73-9	2.9	24
210	Immune system augmentation via humanization using stem/progenitor cells and bioengineering in a breast cancer model study. *International Journal of Cancer*, **2018**, 143, 1470-1482	7.5	23
209	Effect of the sterilization method on the properties of Bombyx mori silk fibroin films. *Materials Science and Engineering C*, **2013**, 33, 668-74	8.3	23
208	A multiscale road map of cancer spheroids--incorporating experimental and mathematical modelling to understand cancer progression. *Journal of Cell Science*, **2013**, 126, 2761-71	5.3	23
207	Investigating the effects of preinduction on human adipose-derived precursor cells in an athymic rat model. *Differentiation*, **2006**, 74, 519-29	3.5	23
206	Melt Electrowriting of Complex 3D Anatomically Relevant Scaffolds. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 793	5.8	23
205	Mechanical properties and cell cultural response of polycaprolactone scaffolds designed and fabricated via fused deposition modeling **2001**, 55, 203		23
204	Via precise interface engineering towards bioinspired composites with improved 3D printing processability and mechanical properties. *Journal of Materials Chemistry B*, **2017**, 5, 5037-5047	7.3	22
203	Scaffold Design and Fabrication **2014**, 311-346		22
202	Composites for delivery of therapeutics: combining melt electrospun scaffolds with loaded electrosprayed microparticles. *Macromolecular Bioscience*, **2014**, 14, 202-14	5.5	22
201	Temporal expression of proteoglycans in the rat limb during bone healing. *Gene*, **2006**, 379, 92-100	3.8	22
200	Functional and phenotypic characterization of human keratinocytes expanded in microcarrier culture. *Journal of Biomedical Materials Research - Part A*, **2009**, 88, 184-94	5.4	21
199	Microassembly Fabrication of Tissue Engineering Scaffolds With Customized Design. *IEEE Transactions on Automation Science and Engineering*, **2008**, 5, 446-456	4.9	21
198	Microparticles for Sustained Growth Factor Delivery in the Regeneration of Critically-Sized Segmental Tibial Bone Defects. *Materials*, **2016**, 9,	3.5	21

197	Tissue engineered human prostate microtissues reveal key role of mast cell-derived tryptase in potentiating cancer-associated fibroblast (CAF)-induced morphometric transition in vitro. *Biomaterials*, **2019**, 197, 72-85	15.6	21
196	Convergence of 3D printed biomimetic wound dressings and adult stem cell therapy. *Biomaterials*, **2021**, 268, 120558	15.6	21
195	Tissue engineering and regenerative medicine in musculoskeletal oncology. *Cancer and Metastasis Reviews*, **2016**, 35, 475-87	9.6	20
194	A Validated Preclinical Animal Model for Primary Bone Tumor Research. *Journal of Bone and Joint Surgery - Series A*, **2016**, 98, 916-25	5.6	20
193	Melt Electrospinning Writing of Three-dimensional Poly(caprolactone) Scaffolds with Controllable Morphologies for Tissue Engineering Applications. *Journal of Visualized Experiments*, **2017**,	1.6	20
192	Mechanical and in vitro evaluations of composite PLDLLA/TCP scaffolds for bone engineering. *Virtual and Physical Prototyping*, **2008**, 3, 193-197	10.1	20
191	Design and Development of a Three-Dimensional Printing High-Throughput Melt Electrowriting Technology Platform. *3D Printing and Additive Manufacturing*, **2019**, 6, 82-90	4	20
190	Gelatin Methacryloyl Hydrogels Control the Localized Delivery of Albumin-Bound Paclitaxel. *Polymers*, **2020**, 12,	4.5	19
189	Meso-Endothelial Bipotent Progenitors from Human Placenta Display Distinct Molecular and Cellular Identity. *Stem Cell Reports*, **2018**, 10, 890-904	8	19
188	Can bone tissue engineering contribute to therapy concepts after resection of musculoskeletal sarcoma?. *Sarcoma*, **2013**, 2013, 153640	3.1	19
187	Advanced Tissue Sciences Inc.: learning from the past, a case study for regenerative medicine. *Regenerative Medicine*, **2010**, 5, 823-35	2.5	19
186	Assimilating cell sheets and hybrid scaffolds for dermal tissue engineering. *Journal of Biomedical Materials Research - Part A*, **2005**, 75, 425-38	5.4	19
185	The effect of decellularized tissue engineered constructs on periodontal regeneration. *Journal of Clinical Periodontology*, **2018**, 45, 586-596	7.7	18
184	Investigation of microstructural features in regenerating bone using micro computed tomography. *Journal of Materials Science: Materials in Medicine*, **2004**, 15, 529-32	4.5	18
183	A Novel 3D Cultured Model for Studying Early Changes in Age-Related Macular Degeneration. *Macromolecular Bioscience*, **2017**, 17, 1700221	5.5	17
182	Fetal endothelial and mesenchymal progenitors from the human term placenta: potency and clinical potential. *Stem Cells Translational Medicine*, **2015**, 4, 419-23	6.9	17
181	Characterisation and evaluation of the regenerative capacity of Stro-4+ enriched bone marrow mesenchymal stromal cells using bovine extracellular matrix hydrogel and a novel biocompatible melt electro-written medical-grade polycaprolactone scaffold. *Biomaterials*, **2020**, 247, 119998	15.6	17
180	ATF5, a possible regulator of osteogenic differentiation in human adipose-derived stem cells. *Journal of Cellular Biochemistry*, **2012**, 113, 2744-53	4.7	17

179	Formalin fixation affects equilibrium partitioning of an ionic contrast agent-microcomputed tomography (EPIC-μCT) imaging of osteochondral samples. *Osteoarthritis and Cartilage*, **2010**, 18, 1586-91	6.2	17
178	Invention and business performance in the tissue-engineering industry. *Tissue Engineering*, **2003**, 9, 1313-22		17
177	New mechanistic insights of integrin β in breast cancer bone colonization. *Oncotarget*, **2015**, 6, 332-44	3.3	17
176	Assessment of static and perfusion methods for decellularization of PCL membrane-supported periodontal ligament cell sheet constructs. *Archives of Oral Biology*, **2018**, 88, 67-76	2.8	16
175	Differentiation potential of mesenchymal progenitor cells following transplantation into calvarial defects. *Journal of the Mechanical Behavior of Biomedical Materials*, **2012**, 11, 132-42	4.1	16
174	Additively Manufactured Device for Dynamic Culture of Large Arrays of 3D Tissue Engineered Constructs. *Advanced Healthcare Materials*, **2015**, 4, 864-73	10.1	16
173	Comparison of chondrogenesis in static and dynamic environments using a SFF designed and fabricated PCL-PEO scaffold. *Virtual and Physical Prototyping*, **2008**, 3, 209-219	10.1	16
172	A histomorphometric assessment of collagen-stabilized anorganic bovine bone mineral in maxillary sinus augmentation - a randomized controlled trial in sheep. *Clinical Oral Implants Research*, **2016**, 27, 734-43	4.8	16
171	Engineering osteoblastic metastases to delineate the adaptive response of androgen-deprived prostate cancer in the bone metastatic microenvironment. *Bone Research*, **2019**, 7, 13	13.3	15
170	A humanised tissue-engineered bone model allows species-specific breast cancer-related bone metastasis in vivo. *Journal of Tissue Engineering and Regenerative Medicine*, **2018**, 12, 494-504	4.4	15
169	Comparison of early osseointegration of SLA and SLActive implants in maxillary sinus augmentation: a pilot study. *Clinical Oral Implants Research*, **2017**, 28, 1325-1333	4.8	15
168	Design and fabrication of scaffold-based tissue engineering. *BioNanoMaterials*, **2013**, 14,		15
167	Nano- to macroscale remodeling of functional tissue-engineered bone. *Advanced Healthcare Materials*, **2013**, 2, 546-51	10.1	15
166	Ovine cortical osteoblasts outperform bone marrow cells in an ectopic bone assay. *Journal of Tissue Engineering and Regenerative Medicine*, **2011**, 5, 831-44	4.4	15
165	Bioreactor studies and computational fluid dynamics. *Advances in Biochemical Engineering/Biotechnology*, **2009**, 112, 231-49	1.7	15
164	Experimental transplantation of hydroxylapatite-bone composite grafts. *Journal of Oral and Maxillofacial Surgery*, **1995**, 53, 46-51; discussion 52	1.8	15
163	Design and Fabrication of a 3D Scaffold for Tissue Engineering Bone152-152-16		15
162	Tie-2 regulates the stemness and metastatic properties of prostate cancer cells. *Oncotarget*, **2016**, 7, 2572-84	3.3	15

161	Evaluation of polycaprolactone poly-D,L-lactide copolymer as biomaterial for breast tissue engineering. *Polymer International*, **2017**, 66, 77-84	3.3	14
160	Electrospinning writing with molten poly (caprolactone) from different directions Examining the effects of gravity. *Materials Letters*, **2018**, 216, 114-118	3.3	14
159	Near-field effects on coherent anti-Stokes Raman scattering microscopy imaging. *Optics Express*, **2007**, 15, 4118-31	3.3	14
158	Tuning mechanical reinforcement and bioactivity of 3D printed ternary nanocomposites by interfacial peptide-polymer conjugates. *Biofabrication*, **2019**, 11, 035028	10.5	14
157	Evolutionary design of bone scaffolds with reference to material selection. *International Journal for Numerical Methods in Biomedical Engineering*, **2012**, 28, 789-800	2.6	13
156	Stage-specific embryonic antigen-4 is not a marker for chondrogenic and osteogenic potential in cultured chondrocytes and mesenchymal progenitor cells. *Tissue Engineering - Part A*, **2013**, 19, 1316-26	3.9	13
155	Bone response to unloaded titanium implants in the fibula, iliac crest, and scapula: an animal study in the Yorkshire pig. *International Journal of Oral and Maxillofacial Surgery*, **2003**, 32, 383-9	2.9	13
154	Radium 223-Mediated Zonal Cytotoxicity of Prostate Cancer in Bone. *Journal of the National Cancer Institute*, **2019**, 111, 1042-1050	9.7	13
153	Mesenchymal stem cells in musculoskeletal tissue engineering: a review of recent advances in National University of Singapore. *Annals of the Academy of Medicine, Singapore*, **2005**, 34, 206-12	2.8	13
152	Immunogold FIB-SEM: Combining Volumetric Ultrastructure Visualization with 3D Biomolecular Analysis to Dissect Cell-Environment Interactions. *Advanced Materials*, **2019**, 31, e1900488	24	12
151	A clarion call for understanding regulatory processes for additive manufacturing in the health sector. *Expert Review of Medical Devices*, **2019**, 16, 405-412	3.5	12
150	Microenvironment engineering of osteoblastic bone metastases reveals osteomimicry of patient-derived prostate cancer xenografts. *Biomaterials*, **2019**, 220, 119402	15.6	12
149	In vitro disease models 4.0 via automation and high-throughput processing. *Biofabrication*, **2019**, 11, 043002	10.5	12
148	Vascularised bone transfer: History, blood supply and contemporary problems. *Journal of Plastic, Reconstructive and Aesthetic Surgery*, **2017**, 70, 1-11	1.7	12
147	Porcine bone marrow stromal cell differentiation on heparin-adsorbed poly(e-caprolactone)-tricalcium phosphate-collagen scaffolds. *Acta Biomaterialia*, **2009**, 5, 3305-15	10.8	12
146	Bone Tissue Engineering **2011**, 431-456		12
145	Design, Fabrication and Physical Characterization of Scaffolds Made from Biodegradable Synthetic Polymers in combination with RP Systems based on Melt Extrusion **2008**, 261-291		12
144	Induction of ectopic bone formation by using human periosteal cells in combination with a novel scaffold technology. *Cell Transplantation*, **2002**, 11, 125-38	4	12

143	OpenWorkstation: A modular open-source technology for automated workflows.. *HardwareX*, **2020**, 8, e00152	2.7	11
142	Layered Antimicrobial Selenium Nanoparticle-Calcium Phosphate Coating on 3D Printed Scaffolds Enhanced Bone Formation in Critical Size Defects. *ACS Applied Materials & Interfaces*, **2020**, 12, 55638-55648	9.5	11
141	Insight into characteristic features of cartilage growth plate as a physiological template for bone formation. *Journal of Biomedical Materials Research - Part A*, **2016**, 104, 357-66	5.4	11
140	Application of an X-ray microscopy technique to evaluate tissue-engineered bone-scaffold constructs. *Materials Science and Engineering C*, **2002**, 20, 9-17	8.3	11
139	Personalized, Mechanically Strong, and Biodegradable Coronary Artery Stents via Melt Electrowriting. *ACS Macro Letters*, **2020**, 9, 1732-1739	6.6	11
138	Convergence of Machine Vision and Melt Electrowriting. *Advanced Materials*, **2021**, 33, e2100519	24	11
137	Humanization of the Prostate Microenvironment Reduces Homing of PC3 Prostate Cancer Cells to Human Tissue-Engineered Bone. *Cancers*, **2018**, 10,	6.6	11
136	A Method for Prostate and Breast Cancer Cell Spheroid Cultures Using Gelatin Methacryloyl-Based Hydrogels. *Methods in Molecular Biology*, **2018**, 1786, 175-194	1.4	11
135	Interface of unloaded titanium implants in the iliac crest, fibula, and scapula: a histomorphometric and biomechanical study in the pig. *International Journal of Oral and Maxillofacial Implants*, **2004**, 19, 52-8	2.8	11
134	Kallikrein-related peptidase 4 induces cancer-associated fibroblast features in prostate-derived stromal cells. *Molecular Oncology*, **2017**, 11, 1307-1329	7.9	10
133	A humanized bone microenvironment uncovers HIF2 alpha as a latent marker for osteosarcoma. *Acta Biomaterialia*, **2019**, 89, 372-381	10.8	10
132	Convergence of scaffold-guided bone regeneration and RIA bone grafting for the treatment of a critical-sized bone defect of the femoral shaft. *European Journal of Medical Research*, **2020**, 25, 70	4.8	10
131	Challenges and opportunities in the manufacture and expansion of cells for therapy. *Expert Opinion on Biological Therapy*, **2017**, 17, 1221-1233	5.4	10
130	The molecular function of kallikrein-related peptidase 14 demonstrates a key modulatory role in advanced prostate cancer. *Molecular Oncology*, **2020**, 14, 105-128	7.9	10
129	A tissue engineered cell-occlusive device for hard tissue regeneration--a preliminary report. *International Journal of Periodontics and Restorative Dentistry*, **2001**, 21, 49-59	2.1	10
128	Polydopamine coating of uncrosslinked chitosan as an acellular scaffold for full thickness skin grafts. *Carbohydrate Polymers*, **2020**, 245, 116524	10.3	9
127	Monitoring Healing Progression and Characterizing the Mechanical Environment in Preclinical Models for Bone Tissue Engineering. *Tissue Engineering - Part B: Reviews*, **2016**, 22, 47-57	7.9	9
126	Additive biomanufacturing of scaffolds for breast reconstruction. *Additive Manufacturing*, **2019**, 30, 100845	6.1	9

125	Humanized bone facilitates prostate cancer metastasis and recapitulates therapeutic effects of zoledronic acid in vivo. *Bone Research*, **2019**, 7, 31	13.3	9
124	Hydrogel Microwell Arrays Allow the Assessment of Protease-Associated Enhancement of Cancer Cell Aggregation and Survival. *Microarrays (Basel, Switzerland)*, **2013**, 2, 208-27		9
123	Effect of Collagen-I Modified Composites on Proliferation and Differentiation of Human Alveolar Osteoblasts. *Australian Journal of Chemistry*, **2006**, 59, 571	1.2	9
122	Stromal fibroblasts regulate microvascular-like network architecture in a bioengineered breast tumour angiogenesis model. *Acta Biomaterialia*, **2020**, 114, 256-269	10.8	9
121	Biomaterials/scaffolds. Design of bioactive, multiphasic PCL/collagen type I and type II-PCL-TCP/collagen composite scaffolds for functional tissue engineering of osteochondral repair tissue by using electrospinning and FDM techniques. *Methods in Molecular Medicine*, **2007**, 140, 101-24		9
120	Growth Factor-Loaded Microparticles for Tissue Engineering: The Discrepancies of In Vitro Characterization Assays. *Tissue Engineering - Part C: Methods*, **2016**, 22, 142-154	2.9	8
119	Fabrication and Characterization of Decellularized Periodontal Ligament Cell Sheet Constructs. *Methods in Molecular Biology*, **2017**, 1537, 403-412	1.4	8
118	Convergence of Scaffold-Guided Bone Reconstruction and Surgical Vascularization Strategies-A Quest for Axial Vascularization. *Frontiers in Bioengineering and Biotechnology*, **2019**, 7, 448	5.8	8
117	Establishment and characterization of an open mini-thoracotomy surgical approach to an ovine thoracic spine fusion model. *Tissue Engineering - Part C: Methods*, **2014**, 20, 19-27	2.9	8
116	A road map for a tissue engineering concept for restoring structure and function after limb loss. *Journal of Materials Science: Materials in Medicine*, **2013**, 24, 2659-63	4.5	8
115	Fetal Bone Marrow-Derived Mesenchymal Stem/Stromal Cells Enhance Humanization and Bone Formation of BMP7 Loaded Scaffolds. *Biotechnology Journal*, **2017**, 12, 1700414	5.6	8
114	Lycopene reduces ovarian tumor growth and intraperitoneal metastatic load. *American Journal of Cancer Research*, **2017**, 7, 1322-1336	4.4	8
113	Mineralization of plasma treated polymer surfaces from super-saturated simulated body fluids. *Materials Letters*, **2018**, 230, 12-15	3.3	7
112	Investigation of Sustained BMP Delivery in the Prevention of Medication-Related Osteonecrosis of the Jaw (MRONJ) in a Rat Model. *Macromolecular Bioscience*, **2019**, 19, e1900226	5.5	7
111	5.13 Electrospinning With Polymer Melts State of the Art and Future Perspectives **2017**, 217-235		7
110	Breast Reconstruction Using Biofabrication-Based Tissue Engineering Strategies **2013**, 183-216		7
109	Towards a medium/high load-bearing scaffold fabrication system. *Tsinghua Science and Technology*, **2009**, 14, 13-19	3.4	7
108	Cryobiology **2008**, 363-401		7

107	Ultrafast, miniature soft actuators. *Multifunctional Materials*, **2021**, 4, 045001	5.2	7
106	Chapter 6:Design and Fabrication of Scaffolds via Melt Electrospinning for Applications in Tissue Engineering. *RSC Polymer Chemistry Series*, **2015**, 100-120	1.3	7
105	Effects of polydopamine coatings on nucleation modes of surface mineralization from simulated body fluid. *Scientific Reports*, **2020**, 10, 14982	4.9	7
104	Nipple Reconstruction: A Regenerative Medicine Approach Using 3D-Printed Tissue Scaffolds. *Tissue Engineering - Part B: Reviews*, **2019**, 25, 126-134	7.9	7
103	Data for accelerated degradation of calcium phosphate surface-coated polycaprolactone and polycaprolactone/bioactive glass composite scaffolds. *Data in Brief*, **2016**, 7, 923-6	1.2	6
102	Characterization of a novel bioactive poly[(lactic acid)-co-(glycolic acid)] and collagen hybrid matrix for dermal regeneration. *Polymer International*, **2005**, 54, 1449-1457	3.3	6
101	Robotic micro-assembly of scaffold/cell constructs with a shape memory alloy gripper		6
100	Composite PLDLLA/TCP Scaffolds for Bone Engineering: Mechanical and In Vitro Evaluations. *IFMBE Proceedings*, **2009**, 1480-1483	0.2	6
99	A 3D-printed biomaterials-based platform to advance established therapy avenues against primary bone cancers. *Acta Biomaterialia*, **2020**, 118, 69-82	10.8	6
98	Human and mouse bones physiologically integrate in a humanized mouse model while maintaining species-specific ultrastructure. *Science Advances*, **2020**, 6,	14.3	6
97	A Suite of Activity-Based Probes To Dissect the KLK Activome in Drug-Resistant Prostate Cancer. *Journal of the American Chemical Society*, **2021**, 143, 8911-8924	16.4	6
96	Spatially Heterogeneous Tubular Scaffolds for In Situ Heart Valve Tissue Engineering Using Melt Electrowriting. *Advanced Functional Materials*,2110716	15.6	6
95	Differential osteogenicity of multiple donor-derived human mesenchymal stem cells and osteoblasts in monolayer, scaffold-based 3D culture and in vivo. *Biomedizinische Technik*, **2016**, 61, 253-66	1.3	5
94	Non-linear optical microscopy and histological analysis of collagen, elastin and lysyl oxidase expression in breast capsular contracture. *European Journal of Medical Research*, **2018**, 23, 30	4.8	5
93	Bacterial comparison of preoperative rinsing and swabbing for oral surgery using 0.2% chlorhexidine. *Journal of Investigative and Clinical Dentistry*, **2015**, 6, 193-6	2.3	5
92	Tissue engineered prefabricated vascularized flaps. *Head and Neck*, **2007**, 29, 458-64	4.2	5
91	A Commentary on ‘Thermo-responsive polymeric surfaces; control of attachment and detachment of cultured cells’ by N. Yamada, T. Okano, H. Sakai, F. Karikusa, Y. Sawasaki, Y. Sakurai (Makromol. Chem., Rapid Commun. 1990, 11, 571–76). *Macromolecular Rapid Communications*, **2005**, 26, 505-513	4.8	5
90	Cancer-associated fibroblasts of the prostate promote a compliant and more invasive phenotype in benign prostate epithelial cells. *Materials Today Bio*, **2020**, 8, 100073	9.9	5

89	Histomorphometric Evaluation of Critical-Sized Bone Defects Using Osteomeasure and Aperio Image Analysis Systems. *Tissue Engineering - Part C: Methods*, **2019**, 25, 732-741	2.9	5
88	Conceptual design of a personalized radiation therapy patch for skin cancer. *Current Directions in Biomedical Engineering*, **2018**, 4, 607-610	0.5	5
87	Osteogenic differentiation of amniotic fluid stem cells. *Bio-Medical Materials and Engineering*, **2008**, 18, 241-6	1	5
86	Modelomics to Investigate Cancer Bone Metastasis. *Current Molecular Biology Reports*, **2018**, 4, 88-100	2	4
85	Effect of plasma immersion ion implantation on polycaprolactone with various molecular weights and crystallinity. *Journal of Materials Science: Materials in Medicine*, **2017**, 29, 5	4.5	4
84	Initial design and physical characterization of a polymeric device for osmosis-driven delayed burst delivery of vaccines. *Biotechnology and Bioengineering*, **2015**, 112, 1927-35	4.9	4
83	An electrospun polycaprolactone�ollagen membrane for the resurfacing of cartilage defects. *Polymer International*, **2010**, 59, 808-817	3.3	4
82	Comparative study of desktop- and synchrotron radiation-based micro computed tomography analyzing cell-seeded scaffolds in tissue engineering of bone **2008**,		4
81	FABRICATION OF 3-D MICROPARTS FOR THE ASSEMBLY OF SCAFFOLD/CELL CONSTRUCTS IN TISSUE ENGINEERING. *International Journal of Computational Engineering Science*, **2003**, 04, 281-284		4
80	Bioengineered Microtissue Models of the Human Bone Metastatic Microenvironment: A Novel In Vitro Theranostics Platform for Cancer Research. *Methods in Molecular Biology*, **2019**, 2054, 23-57	1.4	4
79	Direct fabrication as a patient-targeted therapeutic in a clinical environment. *Methods in Molecular Biology*, **2012**, 868, 327-40	1.4	4
78	Regeneration von Knochendefekten mit computergesteuerter Herstellung von Ger�ttr�gern. *Osteologie*, **2013**, 22, 180-187	0.2	4
77	Elucidating the Molecular Mechanisms for the Interaction of Water with Polyethylene Glycol-Based Hydrogels: Influence of Ionic Strength and Gel Network Structure. *Polymers*, **2021**, 13,	4.5	4
76	Deciphering the Molecular Mechanism of Water Interaction with Gelatin Methacryloyl Hydrogels: Role of Ionic Strength, pH, Drug Loading and Hydrogel Network Characteristics. *Biomedicines*, **2021**, 9,	4.8	4
75	Lycopene's Effects on Cancer Cell Functions within Monolayer and Spheroid Cultures. *Nutrition and Cancer*, **2016**, 68, 350-63	2.8	4
74	Tissue engineering of corneal stroma via melt electrowriting. *Journal of Tissue Engineering and Regenerative Medicine*, **2021**, 15, 841-851	4.4	4
73	Scaffold-guided bone regeneration in large volume tibial segmental defects. *Bone*, **2021**, 153, 116163	4.7	4
72	Biomaterial science meets computational biology. *Journal of Materials Science: Materials in Medicine* , **2015**, 26, 185	4.5	3

71	Bioreactor Studies and Computational Fluid Dynamics. *Advances in Biochemical Engineering/Biotechnology*, **2009**, 231-249	1.7	3
70	5 Cellular Model Systems to Study the Tumor Biological Role of Kallikrein-related Peptidases in Ovarian and Prostate Cancer		3
69	Breast Reconstruction Using Scaffold-Based Tissue Engineering **2020**, 279-290		3
68	An open-source technology platform to increase reproducibility and enable high-throughput production of tailorable gelatin methacryloyl (GelMA) - based hydrogels. *Materials and Design*, **2021** , 204, 109619	8.1	3
67	In vitro engineering of a bone metastases model allows for study of the effects of antiandrogen therapies in advanced prostate cancer. *Science Advances*, **2021**, 7,	14.3	3
66	Automated 3D Microphysiometry Facilitates High-Content and Highly Reproducible Oxygen Measurements within 3D Cell Culture Models. *ACS Sensors*, **2021**, 6, 1248-1260	9.2	3
65	A humanized orthotopic tumor microenvironment alters the bone metastatic tropism of prostate cancer cells. *Communications Biology*, **2021**, 4, 1014	6.7	3
64	Recombinant Human Bone Morphogenetic Protein 7 Exerts Osteo-Catabolic Effects on Bone Grafts That Outweigh Its Osteo-Anabolic Capacity. *Calcified Tissue International*, **2019**, 105, 331-340	3.9	2
63	Designification of Neurotechnological Devices through 3D Printed Functional Materials. *Advanced Functional Materials*, **2018**, 28, 1703905	15.6	2
62	Data on in vitro and in vivo cell orientation on substrates with different topographies. *Data in Brief*, **2015**, 5, 379-82	1.2	2
61	Nano-fiber scaffold science and tissue engineering. Foreword. *Journal of Biomaterials Science, Polymer Edition*, **2008**, 19, 541-2	3.5	2
60	TISSUE ENGINEERING APPROACH TO OSTEOCHONDRAL REPAIR AND REGENERATION. *Journal of Mechanics in Medicine and Biology*, **2004**, 04, 463-483	0.7	2
59	PROCESSING OF BIORESORBABLE SCAFFOLDS FOR TISSUE ENGINEERING OF BONE BY APPLYING RAPID PROTOTYPING TECHNOLOGIES **2001**,		2
58	Abstract 4941: A humanized bone model for preclinical monitoring of prostate cancer lesions by intravital multiphoton microscopy **2014**,		2
57	Gelatin Methacryloyl Hydrogels for the Localized Delivery of Cefazolin. *Polymers*, **2021**, 13,	4.5	2
56	Design and Fabrication Principles of Electrospinning of Scaffolds **2008**, 115-139		2
55	Preclinical Animal Models for Segmental Bone Defect Research and Tissue Engineering **2011**, 845-881		2
54	Quo Vadis Breast Tissue Engineering?. *EBioMedicine*, **2016**, 6, 24-25	8.8	2

53	A new 3D printed applicator with radioactive gel for conformal brachytherapy of superficial skin tumors. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2019**, 2019, 6979-6982	0.9	2
52	Knowledge, consultation time, and choice in breast reconstruction. *British Journal of Surgery*, **2021**, 108, e168-e169	5.3	2
51	: An Algorithm for Standardization and Automation of Compression Test Analysis. *Tissue Engineering - Part C: Methods*, **2021**, 27, 529-542	2.9	2
50	Engineering a 3D bone marrow adipose composite tissue loading model suitable for studying mechanobiological questions. *Materials Science and Engineering C*, **2021**, 128, 112313	8.3	2
49	ATF5, a possible regulator of osteogenic differentiation in adult mesenchymal stem cells. *Journal of Stem Cells and Regenerative Medicine*, **2007**, 2, 110-2	0.8	2
48	Biomimic Design of Periosteum: Construction Strategies, Scaffold Design and Cell Sources. *Springer Series in Biomaterials Science and Engineering*, **2017**, 303-318	0.6	1
47	5.11 Engineering the Haematopoietic Stem Cell Niche In Vitro **2017**, 187-199		1
46	Cost-Effective Creation of Biofunctionalised Scaffolds, Tailored to Function as Stem Cell Niches for Expansion, Transport and Delivery. *Cytotherapy*, **2016**, 18, S60	4.8	1
45	A polymerase chain reaction-based method for isolating clones from a complimentary DNA library in sheep. *Tissue Engineering - Part C: Methods*, **2014**, 20, 780-9	2.9	1
44	6.3 Engineering the Organ Bone **2017**, 54-74		1
43	Ceramic Materials for Bone Tissue Replacement and Regeneration. *Ceramic Transactions*, **2010**, 525-530	0.1	1
42	Force-controlled automatic microassembly of tissue engineering scaffolds. *Journal of Micromechanics and Microengineering*, **2010**, 20, 035001	2	1
41	Osteogenic differentiation of amniotic fluid stem cells. *Bio-Medical Materials and Engineering*, **2008**, 18, 241-246	1	1
40	Cognitive Bias and Therapy Choice in Breast Reconstruction Surgery Decision-Making.. *Plastic and Reconstructive Surgery*, **2022**,	2.7	1
39	Mechanical and Geometrical Study of 3D Printed Voronoi Scaffold Design for Large Bone Defects. *Materials and Design*, **2021**, 212, 110224	8.1	1
38	Pectus excavatum camouflage: a new technique using a tissue engineered scaffold. *European Journal of Plastic Surgery*,1	0.6	1
37	An Open Source Technology Platform to Manufacture Hydrogel-Based 3D Culture Models in an Automated and Standardized Fashion.. *Journal of Visualized Experiments*, **2022**,	1.6	1
36	Real-Time and 3D Quantification of Cancer Cell Dynamics: Exploiting a Bioengineered Human Bone Metastatic Microtissue. *Methods in Molecular Biology*, **2019**, 2054, 59-77	1.4	1

35	Craniofacial Bone Tissue Engineering Using Medical Imaging, Computational Modeling, Rapid Prototyping, Bioresorbable Scaffolds and Bone Marrow Aspirates **2002**, 333-354		1
34	Antibacterial Albumin-Tannic Acid Coatings for Scaffold-Guided Breast Reconstruction. *Frontiers in Bioengineering and Biotechnology*, **2021**, 9, 638577	5.8	1
33	A humanised rat model of osteosarcoma reveals ultrastructural differences between bone and mineralised tumour tissue. *Bone*, **2021**, 116018	4.7	1
32	A Preclinical Animal Model for the Study of Scaffold-Guided Breast Tissue Engineering. *Tissue Engineering - Part C: Methods*, **2021**, 27, 366-377	2.9	1
31	The Patenting and Technological Trends in Hernia Mesh Implants. *Tissue Engineering - Part B: Reviews*, **2021**, 27, 48-73	7.9	1
30	Targeted 2D histology and ultrastructural bone analysis based on 3D microCT anatomical locations. *MethodsX*, **2021**, 8, 101480	1.9	1
29	Biomechanical Principles of Breast Implants and Current State of Research in Soft Tissue Engineering for Cosmetic Breast Augmentation. *Aesthetic Plastic Surgery*, **2021**, 1	2	1
28	Technology roadmap for the development of a 3D cell culture workstation for a biomedical industry startup. *Technological Forecasting and Social Change*, **2022**, 174, 121213	9.5	1
27	Mechanical properties and cell cultural response of polycaprolactone scaffolds designed and fabricated via fused deposition modeling **2001**, 55, 203		1
26	In Vitro Physical and Mechano-Chemical Properties of Biodegradable Scaffolds Fabricated with PCL and PCL-PEG. *IFMBE Proceedings*, **2008**, 821-824	0.2	0
25	Label-free isolation and cultivation of patient-matched human mammary epithelial and stromal cells from normal breast tissue. *European Journal of Cell Biology*, **2021**, 100, 151187	6.1	0
24	Automated melt electrowritting platform with real-time process monitoring. *HardwareX*, **2021**, 10, e00246	2.7	0
23	The Use of 3D Printed Microporous-Strut Polycaprolactone Scaffolds for Targeted Local Delivery of Chemotherapeutic Agent for Breast Cancer Application. *IFMBE Proceedings*, **2020**, 153-157	0.2	0
22	Periodontal tissue engineering **2016**, 124-144		
21	SpheroidSim-Preliminary evaluation of a new computational tool to predict the influence of cell cycle time and phase fraction on spheroid growth. *Biotechnology Progress*, **2018**, 34, 1335-1343	2.8	
20	6.25 Breast Tissue Engineering **2017**, 435-454		
19	Matrices for Zonal Cartilage Tissue Engineering **2012**, 733-755		
18	Preclinical Animal Models for Segmental Bone Defect Research and Tissue Engineering **2013**, 1023-1064		

17	Characterization and Culturing of Adipose-Derived Precursor Cells439-462	
16	Scaffold and implant design: Considerations relating to characterization of biodegradablity and bioresorbability **2008**, 319-356	
15	THE BIOMEDICAL APPLICATIONS OF COMPUTED TOMOGRAPHY **2007**, 193-223	
14	Scaffold-based Tissue Engineering Design and Fabrication of Matrices Using Solid Freeform Fabrication Techniques **2006**, 163-189	
13	Bone Repair and Adult Stem Cells **2005**, 442-465	
12	Fusion Performance of a Bioresorbable Cage Used In Porcine Model of Anterior Lumbar Interbody Fusion. *IFMBE Proceedings*, **2009**, 1476-1479	0.2
11	The Application of Image Processing Software for Tissue Engineering(Cellular & Tissue Engineering). *The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics*, **2004**, 2004.1, 95-96	
10	Repair of Large Articular Osteochondral Defects Using Hybrid Scaffolds and Bone Marrow-Derived Mesenchymal Stem Cells in a Rabbit Model. *Tissue Engineering*, **2006**, 060706073730036	
9	Co-culture of Bone Marrow Fibroblasts and Endothelial Cells on Modified Polycaprolactone Substrates for Enhanced Potentials in Bone Tissue Engineering. *Tissue Engineering*, **2006**, 060913044658009	
8	Design, Fabrication, and Characterization of Scaffolds via Solid Free-Form Fabrication Techniques **2008**, 45-67	
7	The Current State and Future of Regenerative Sports Medicine. *Future of Business and Finance*, **2020**, 133-149	0.2
6	Electrospinning Technology: Cellulose and Cellulose Derivatives3218-3258	
5	Skin Tissue Engineering7308-7321	
4	Skin Tissue Engineering: In Vitro Evaluation of Natural and Synthetic 3-D Matrices7322-7334	
3	Electrospinning Technology: Cellulose and Cellulose Derivatives **2017**, 506-546	
2	Bone Tissue Engineering **2010**, 105-143	
1	Electrospinning for Regenerative Medicine **2013**, 539-592	