

Elizabeth R Balmayor

List of Publications by Year in descending order

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64
papers

2,154
citations

212478

28
h-index

263392

45
g-index

68
all docs

68
docs citations

68
times ranked

3945
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthetic mRNA “emerging new class of drug for tissue regeneration. <i>Current Opinion in Biotechnology</i> , 2022, 74, 8-14.	3.3	18
2	Efficient healing of large osseous segmental defects using optimized chemically modified messenger RNA encoding BMP-2. <i>Science Advances</i> , 2022, 8, eabl6242.	4.7	29
3	Enthesis Healing Is Dependent on Scaffold Interphase Morphology”Results from a Rodent Patellar Model. <i>Cells</i> , 2022, 11, 1752.	1.8	5
4	Transcript-Activated Coatings on Titanium Mediate Cellular Osteogenesis for Enhanced Osteointegration. <i>Molecular Pharmaceutics</i> , 2021, 18, 1121-1137.	2.3	11
5	A Graded, Porous Composite of Natural Biopolymers and Octacalcium Phosphate Guides Osteochondral Differentiation of Stem Cells. <i>Advanced Healthcare Materials</i> , 2021, 10, e2001692.	3.9	17
6	Application of a Hyperelastic 3D Printed Scaffold for Mesenchymal Stem Cell-Based Fabrication of a Bizonal Tendon Enthesis-like Construct. <i>Frontiers in Materials</i> , 2021, 8, .	1.2	10
7	Gene therapy for bone healing: lessons learned and new approaches. <i>Translational Research</i> , 2021, 236, 1-16.	2.2	24
8	Phosphorous pentoxide-free bioactive glass exhibits dose-dependent angiogenic and osteogenic capacities which are retained in glass polymeric composite scaffolds. <i>Biomaterials Science</i> , 2021, 9, 7876-7894.	2.6	3
9	A New Non-invasive Technique for Measuring 3D-Oxygen Gradients in Wells During Mammalian Cell Culture. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 595.	2.0	18
10	Effect of donor age and 3D-cultivation on osteogenic differentiation capacity of adipose-derived mesenchymal stem cells. <i>Scientific Reports</i> , 2020, 10, 10408.	1.6	12
11	An Improved, Chemically Modified RNA Encoding BMP-2 Enhances Osteogenesis <i>In Vitro</i> and <i>In Vivo</i> . <i>Tissue Engineering - Part A</i> , 2019, 25, 131-144.	1.6	36
12	Development, Characterization and In Vitro Biological Properties of Scaffolds Fabricated From Calcium Phosphate Nanoparticles. <i>International Journal of Molecular Sciences</i> , 2019, 20, 1790.	1.8	34
13	Healing with RNA. <i>Injury</i> , 2019, 50, 625-626.	0.7	6
14	Chondrocyte Culture Parameters for Matrix-Assisted Autologous Chondrocyte Implantation Affect Catabolism and Inflammation in a Rabbit Model. <i>International Journal of Molecular Sciences</i> , 2019, 20, 1545.	1.8	1
15	In vivo evaluation of a regenerative approach to nasal dorsum augmentation with a polycaprolactone-based implant. <i>European Journal of Medical Research</i> , 2019, 24, 6.	0.9	13
16	RNA Therapeutics for Tissue Engineering. <i>Tissue Engineering - Part A</i> , 2019, 25, 9-11.	1.6	12
17	Oxygen-distribution within 3-D collagen I hydrogels for bone tissue engineering. <i>Materials Science and Engineering C</i> , 2019, 95, 422-427.	3.8	16
18	Heparin functionalization increases retention of TGF- β 2 and GDF5 on biphasic silk fibroin scaffolds for tendon/ligament-to-bone tissue engineering. <i>Acta Biomaterialia</i> , 2018, 72, 150-166.	4.1	81

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19	Exploring the use of silica sands and calcite from natural deposits to prepare bioactive glasses. <i>International Journal of Materials Research</i> , 2018, 110, 333-342.	0.1	2
20	Non-linear optical microscopy and histological analysis of collagen, elastin and lysyl oxidase expression in breast capsular contracture. <i>European Journal of Medical Research</i> , 2018, 23, 30.	0.9	9
21	Co-Culture with Human Osteoblasts and Exposure to Extremely Low Frequency Pulsed Electromagnetic Fields Improve Osteogenic Differentiation of Human Adipose-Derived Mesenchymal Stem Cells. <i>International Journal of Molecular Sciences</i> , 2018, 19, 994.	1.8	34
22	Osteogenic Effect and Cell Signaling Activation of Extremely Low-Frequency Pulsed Electromagnetic Fields in Adipose-Derived Mesenchymal Stromal Cells. <i>Stem Cells International</i> , 2018, 2018, 1-11.	1.2	22
23	BMP-2-transduced human bone marrow stem cells enhance neo-bone formation in a rat critical-sized femur defect. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2017, 11, 1122-1131.	1.3	19
24	VEGF released from a fibrin biomatrix increases VEGFR-2 expression and improves early outcome after ischaemia-reperfusion injury. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2017, 11, 2153-2163.	1.3	10
25	Evaluation of polycaprolactone-poly-D,L-lactide copolymer as biomaterial for breast tissue engineering. <i>Polymer International</i> , 2017, 66, 77-84.	1.6	17
26	Hyaluronic acid facilitates chondrogenesis and matrix deposition of human adipose derived mesenchymal stem cells and human chondrocytes co-cultures. <i>Acta Biomaterialia</i> , 2017, 52, 130-144.	4.1	96
27	Fabrication and Characterization of Biphasic Silk Fibroin Scaffolds for Tendon/Ligament-to-Bone Tissue Engineering. <i>Tissue Engineering - Part A</i> , 2017, 23, 859-872.	1.6	78
28	miRNAs in bone tissue correlate to bone mineral density and circulating miRNAs are gender independent in osteoporotic patients. <i>Scientific Reports</i> , 2017, 7, 15861.	1.6	96
29	Adipose-derived mesenchymal stem cells from liposuction and resected fat are feasible sources for regenerative medicine. <i>European Journal of Medical Research</i> , 2017, 22, 17.	0.9	102
30	Modified mRNA for BMP-2 in Combination with Biomaterials Serves as a Transcript-Activated Matrix for Effectively Inducing Osteogenic Pathways in Stem Cells. <i>Stem Cells and Development</i> , 2017, 26, 25-34.	1.1	46
31	Optimized protocol for whole organ decellularization. <i>European Journal of Medical Research</i> , 2017, 22, 31.	0.9	37
32	2.26 MicroRNA as Biomaterial. , 2017, , 558-570.		1
33	Redifferentiation of aged human articular chondrocytes by combining bone morphogenetic protein-2 and melanoma inhibitory activity protein in 3D-culture. <i>PLoS ONE</i> , 2017, 12, e0179729.	1.1	5
34	Microneedle physical contact as a therapeutic for abnormal scars. <i>European Journal of Medical Research</i> , 2017, 22, 28.	0.9	35
35	Knochenersatz. , 2017, , 31-37.		0
36	Human cellular CYBA UTR sequences increase mRNA translation without affecting the half-life of recombinant RNA transcripts. <i>Scientific Reports</i> , 2016, 6, 39149.	1.6	27

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37	miRNAs Related to Skeletal Diseases. <i>Stem Cells and Development</i> , 2016, 25, 1261-1281.	1.1	43
38	VEGF released by deferoxamine preconditioned mesenchymal stem cells seeded on collagen-GAG substrates enhances neovascularization. <i>Scientific Reports</i> , 2016, 6, 36879.	1.6	33
39	Transformation of Breast Reconstruction via Additive Biomanufacturing. <i>Scientific Reports</i> , 2016, 6, 28030.	1.6	67
40	Chemically modified RNA induces osteogenesis of stem cells and human tissue explants as well as accelerates bone healing in rats. <i>Biomaterials</i> , 2016, 87, 131-146.	5.7	87
41	Presence of starch enhances <i>in vitro</i> biodegradation and biocompatibility of a gentamicin delivery formulation. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2015, 103, 1610-1620.	1.6	5
42	Fabrication of electrospun poly(d,l lactide-co-glycolide)80/20 scaffolds loaded with diclofenac sodium for tissue engineering. <i>European Journal of Medical Research</i> , 2015, 20, 54.	0.9	19
43	Gene Therapy for Bone Engineering. <i>Frontiers in Bioengineering and Biotechnology</i> , 2015, 3, 9.	2.0	59
44	Pantoprazole Decreases Cell Viability and Function of Human Osteoclasts <i>In Vitro</i> . <i>Mediators of Inflammation</i> , 2015, 2015, 1-8.	1.4	30
45	Phototherapy With LED Light Modulates Healing Processes in an In Vitro Scratch-Wound Model Using 3 Different Cell Types. <i>Dermatologic Surgery</i> , 2015, 41, 261-268.	0.4	47
46	Strategies to engineer tendon/ligament-to-bone interface: Biomaterials, cells and growth factors. <i>Advanced Drug Delivery Reviews</i> , 2015, 94, 126-140.	6.6	206
47	Additive manufacturing in biomedical sciences and the need for definitions and norms. <i>Expert Review of Medical Devices</i> , 2015, 12, 537-543.	1.4	49
48	Targeted delivery as key for the success of small osteoinductive molecules. <i>Advanced Drug Delivery Reviews</i> , 2015, 94, 13-27.	6.6	65
49	Drug delivery to bony tissue. <i>Advanced Drug Delivery Reviews</i> , 2015, 94, 1-2.	6.6	1
50	Clinical Approaches to the Healing of Long Bone Defects. , 2015, , 217-231.		1
51	Human Placental Alkaline Phosphatase as a Tracking Marker for Bone Marrow Mesenchymal Stem Cells. <i>BioResearch Open Access</i> , 2013, 2, 346-355.	2.6	11
52	Stem Cell Therapy for Bone Disorders. , 2013, , 101-116.		0
53	Injectable biodegradable starch/chitosan delivery system for the sustained release of gentamicin to treat bone infections. <i>Carbohydrate Polymers</i> , 2012, 87, 32-39.	5.1	32
54	Synthesis and functionalization of superparamagnetic poly- ϵ -caprolactone microparticles for the selective isolation of subpopulations of human adipose-derived stem cells. <i>Journal of the Royal Society Interface</i> , 2011, 8, 896-908.	1.5	22

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55	107 TRANSGENIC MOUSE MODEL FOR UNBIASED LONG-TERM TRACKING OF LABELED CELLS IN IMMUNOCOMPETENT HOSTS. <i>Osteoarthritis and Cartilage</i> , 2011, 19, S56-S57.	0.6	0
56	Controlled Delivery Systems: From Pharmaceuticals to Cells and Genes. <i>Pharmaceutical Research</i> , 2011, 28, 1241-1258.	1.7	50
57	Silk fibroin microparticles as carriers for delivery of human recombinant BMPs. Physical characterization and drug release. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2010, 4, 349-355.	1.3	95
58	Silk Fibroin Microparticles as Carriers for Delivery of Human Recombinant Bone Morphogenetic Protein-2: In Vitro and In Vivo Bioactivity. <i>Tissue Engineering - Part C: Methods</i> , 2010, 16, 937-945.	1.1	63
59	Starch-poly- ϵ -caprolactone Microparticles Reduce the Needed Amount of BMP-2. <i>Clinical Orthopaedics and Related Research</i> , 2009, 467, 3138-3148.	0.7	34
60	Preparation and characterization of starch-poly- ϵ -caprolactone microparticles incorporating bioactive agents for drug delivery and tissue engineering applications. <i>Acta Biomaterialia</i> , 2009, 5, 1035-1045.	4.1	85
61	A novel enzymatically-mediated drug delivery carrier for bone tissue engineering applications: combining biodegradable starch-based microparticles and differentiation agents. <i>Journal of Materials Science: Materials in Medicine</i> , 2008, 19, 1617-1623.	1.7	51
62	TERMIS EU 2008 Porto Meeting June 22â€“26, 2008 Porto Congress Centerâ€“AlfÃ¢ndega Portugal. <i>Tissue Engineering - Part A</i> , 2008, 14, 691-943.	1.6	6
63	Passive adsorption of human antirrabid immunoglobulin onto a polystyrene surface. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2005, 16, 435-448.	1.9	7
64	Obtaining new formulations of inclusion resin for optical microscopy. Introduction of its use in animal tissue. , 2003, 5, 280-285.		0