

Kazunori Shimizu

List of Publications by Year in descending order

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99
papers

2,123
citations

218677

26
h-index

276875

41
g-index

104
all docs

104
docs citations

104
times ranked

2794
citing authors

#	ARTICLE	IF	CITATIONS
1	Bone tissue engineering with human mesenchymal stem cell sheets constructed using magnetite nanoparticles and magnetic force. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2007, 82B, 471-480.	3.4	126
2	Effective cell-seeding technique using magnetite nanoparticles and magnetic force onto decellularized blood vessels for vascular tissue engineering. <i>Journal of Bioscience and Bioengineering</i> , 2007, 103, 472-478.	2.2	104
3	Alignment of skeletal muscle myoblasts and myotubes using linear micropatterned surfaces ground with abrasives. <i>Biotechnology and Bioengineering</i> , 2009, 103, 631-638.	3.3	95
4	Preparation of artificial skeletal muscle tissues by a magnetic force-based tissue engineering technique. <i>Journal of Bioscience and Bioengineering</i> , 2009, 108, 538-543.	2.2	88
5	Enhanced Angiogenesis by Transplantation of Mesenchymal Stem Cell Sheet Created by a Novel Magnetic Tissue Engineering Method. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2011, 31, 2210-2215.	2.4	88
6	Construction of multi-layered cardiomyocyte sheets using magnetite nanoparticles and magnetic force. <i>Biotechnology and Bioengineering</i> , 2007, 96, 803-809.	3.3	87
7	Enhanced cell-seeding into 3D porous scaffolds by use of magnetite nanoparticles. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2006, 77B, 265-272.	3.4	84
8	Mag-seeding of rat bone marrow stromal cells into porous hydroxyapatite scaffolds for bone tissue engineering. <i>Journal of Bioscience and Bioengineering</i> , 2007, 104, 171-177.	2.2	69
9	Development of a biochip with serially connected pneumatic balloons for cell-stretching culture. <i>Sensors and Actuators B: Chemical</i> , 2011, 156, 486-493.	7.8	53
10	Oxygen plasma-treated thermoresponsive polymer surfaces for cell sheet engineering. <i>Biotechnology and Bioengineering</i> , 2010, 106, 303-310.	3.3	50
11	Novel combination of hydrophilic/hydrophobic surface for large wettability difference and its application to liquid manipulation. <i>Lab on A Chip</i> , 2011, 11, 639-644.	6.0	49
12	Microfluidic devices for construction of contractile skeletal muscle microtissues. <i>Journal of Bioscience and Bioengineering</i> , 2015, 119, 212-216.	2.2	48
13	Increase of organic solvent tolerance by overexpression of manXYZ in <i>Escherichia coli</i> . <i>Applied Microbiology and Biotechnology</i> , 2007, 73, 1394-1399.	3.6	43
14	Evaluation of serum-free differentiation conditions for C2C12 myoblast cells assessed as to active tension generation capability. <i>Biotechnology and Bioengineering</i> , 2010, 107, 894-901.	3.3	40
15	Discovery of glpC, an Organic Solvent Tolerance-Related Gene in <i>Escherichia coli</i> , Using Gene Expression Profiles from DNA Microarrays. <i>Applied and Environmental Microbiology</i> , 2005, 71, 1093-1096.	3.1	37
16	Novel method for fabrication of skeletal muscle construct from the C2C12 myoblast cell line using serum-free medium AIM-V. <i>Biotechnology and Bioengineering</i> , 2009, 103, 1034-1041.	3.3	36
17	Designing of a Si-MEMS device with an integrated skeletal muscle cell-based bio-actuator. <i>Biomedical Microdevices</i> , 2011, 13, 123-129.	2.8	35
18	Neutralized Nanoparticle Composed of SS-Cleavable and pH-Activated Lipid-Like Material as a Long-Lasting and Liver-Specific Gene Delivery System. <i>Advanced Healthcare Materials</i> , 2014, 3, 1222-1229.	7.6	35

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19	Application of a cell sheet-polymer film complex with temperature sensitivity for increased mechanical strength and cell alignment capability. <i>Biotechnology and Bioengineering</i> , 2009, 103, 370-377.	3.3	34
20	Transplantation of insulin-secreting multicellular spheroids for the treatment of type 1 diabetes in mice. <i>Journal of Controlled Release</i> , 2014, 173, 119-124.	9.9	34
21	Optimization of Albumin Secretion and Metabolic Activity of Cytochrome P450 1A1 of Human Hepatoblastoma HepG2 Cells in Multicellular Spheroids by Controlling Spheroid Size. <i>Biological and Pharmaceutical Bulletin</i> , 2017, 40, 334-338.	1.4	34
22	Three-Dimensional Culture Model of Skeletal Muscle Tissue with Atrophy Induced by Dexamethasone. <i>Bioengineering</i> , 2017, 4, 56.	3.5	34
23	Assembly of skeletal muscle cells on a Si-MEMS device and their generative force measurement. <i>Biomedical Microdevices</i> , 2010, 12, 247-252.	2.8	33
24	Micropatterning of single myotubes on a thermoresponsive culture surface using elastic stencil membranes for single-cell analysis. <i>Journal of Bioscience and Bioengineering</i> , 2010, 109, 174-178.	2.2	29
25	Novel method for measuring active tension generation by C2C12 myotube using UV-crosslinked collagen film. <i>Biotechnology and Bioengineering</i> , 2010, 106, 482-489.	3.3	29
26	Poly(N-isopropylacrylamide)-coated microwell arrays for construction and recovery of multicellular spheroids. <i>Journal of Bioscience and Bioengineering</i> , 2013, 115, 695-699.	2.2	28
27	Magnetic force-based mesenchymal stem cell expansion using antibody-conjugated magnetoliposomes. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2005, 75B, 320-327.	3.4	27
28	Selective Elimination of Human Induced Pluripotent Stem Cells Using Medium with High Concentration of L-Alanine. <i>Scientific Reports</i> , 2018, 8, 12427.	3.3	27
29	In vivo Site-Specific Transfection of Naked Plasmid DNA and siRNAs in Mice by Using a Tissue Suction Device. <i>PLoS ONE</i> , 2012, 7, e41319.	2.5	26
30	Plasma-activated medium selectively eliminates undifferentiated human induced pluripotent stem cells. <i>Regenerative Therapy</i> , 2016, 5, 55-63.	3.0	26
31	Effects of the properties of short peptides conjugated with cell-penetrating peptides on their internalization into cells. <i>Scientific Reports</i> , 2015, 5, 12884.	3.3	24
32	Fabrication of scaffold-free contractile skeletal muscle tissue using magnetite-incorporated myogenic C2C12 cells. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2010, 4, n/a-n/a.	2.7	23
33	Evaluation systems of generated forces of skeletal muscle cell-based bio-actuators. <i>Journal of Bioscience and Bioengineering</i> , 2013, 115, 115-121.	2.2	21
34	Formation of superhydrophobic/superhydrophilic patterns by combination of nanostructure-imprinted perfluoropolymer and nanostructured silicon oxide for biological droplet generation. <i>Applied Physics Letters</i> , 2011, 98, 123706.	3.3	20
35	Increased Insulin Secretion from Insulin-Secreting Cells by Construction of Mixed Multicellular Spheroids. <i>Pharmaceutical Research</i> , 2016, 33, 247-256.	3.5	20
36	In Vitro Model of Human Skeletal Muscle Tissues with Contractility Fabricated by Immortalized Human Myogenic Cells. <i>Advanced Biology</i> , 2020, 4, e2000121.	3.0	20

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37	Development of a human neuromuscular tissue-on-a-chip model on a 24-well-plate-format compartmentalized microfluidic device. <i>Lab on A Chip</i> , 2021, 21, 1897-1907.	6.0	20
38	Control of polarization and tumoricidal activity of macrophages by multicellular spheroid formation. <i>Journal of Controlled Release</i> , 2018, 270, 177-183.	9.9	17
39	In-process evaluation of culture errors using morphology-based image analysis. <i>Regenerative Therapy</i> , 2018, 9, 15-23.	3.0	17
40	Effect of global transcriptional regulators related to carbohydrate metabolism on organic solvent tolerance in <i>Escherichia coli</i> . <i>Journal of Bioscience and Bioengineering</i> , 2008, 105, 389-394.	2.2	16
41	Time-course data analysis of gene expression profiles reveals purR regulon concerns in organic solvent tolerance in <i>Escherichia coli</i> . <i>Journal of Bioscience and Bioengineering</i> , 2005, 99, 72-74.	2.2	15
42	Rapid decrease in active tension generated by C2C12 myotubes after termination of artificial exercise. <i>Journal of Muscle Research and Cell Motility</i> , 2010, 31, 279-288.	2.0	15
43	Morphology-based non-invasive quantitative prediction of the differentiation status of neural stem cells. <i>Journal of Bioscience and Bioengineering</i> , 2017, 124, 351-358.	2.2	15
44	Using size-controlled multicellular spheroids of murine adenocarcinoma cells to efficiently establish pulmonary tumors in mice. <i>Biotechnology Journal</i> , 2017, 12, 1600513.	3.5	15
45	Characterization of transgene expression and pDNA distribution of the suctioned kidney in mice. <i>Drug Delivery</i> , 2017, 24, 906-917.	5.7	15
46	Effective modification of cell death-inducing intracellular peptides by means of a photo-cleavable peptide array-based screening system. <i>Journal of Bioscience and Bioengineering</i> , 2017, 124, 209-214.	2.2	15
47	Regulation of proliferation and functioning of transplanted cells by using herpes simplex virus thymidine kinase gene in mice. <i>Journal of Controlled Release</i> , 2018, 275, 78-84.	9.9	14
48	Image-based cell quality evaluation to detect irregularities under same culture process of human induced pluripotent stem cells. <i>Journal of Bioscience and Bioengineering</i> , 2017, 123, 642-650.	2.2	13
49	Exploring high-affinity binding properties of octamer peptides by principal component analysis of tetramer peptides. <i>Journal of Bioscience and Bioengineering</i> , 2017, 123, 230-238.	2.2	13
50	Enhancement of C2C12 differentiation by perfluorocarbon-mediated oxygen delivery. <i>Journal of Bioscience and Bioengineering</i> , 2010, 110, 359-362.	2.2	11
51	Interaction between porous silica gel microcarriers and peptides for oral administration of functional peptides. <i>Scientific Reports</i> , 2018, 8, 10971.	3.3	11
52	Machine Learning-Based Amino Acid Substitution of Short Peptides: Acquisition of Peptides with Enhanced Inhibitory Activities against α -Amylase and α -Glucosidase. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 6117-6125.	5.2	11
53	Intravenous injection of mesenchymal stem cell spheroids improves the pulmonary delivery and prolongs in vivo survival. <i>Biotechnology Journal</i> , 2022, 17, e2100137.	3.5	11
54	Development of a suction device for stabilizing in vivo real-time imaging of murine tissues. <i>Journal of Bioscience and Bioengineering</i> , 2011, 112, 508-510.	2.2	10

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55	Implantable pneumatically actuated microsystem for renal pressure-mediated transfection in mice. <i>Journal of Controlled Release</i> , 2012, 159, 85-91.	9.9	10
56	Efficient capturing of circulating tumor cells using a magnetic capture column and a size-selective filter. <i>Bioprocess and Biosystems Engineering</i> , 2015, 38, 1693-1704.	3.4	10
57	Development of a tactical screening method to investigate the characteristics of functional peptides. <i>Biotechnology and Bioprocess Engineering</i> , 2016, 21, 119-127.	2.6	10
58	Fabrication of contractile skeletal muscle tissues using directly converted myoblasts from human fibroblasts. <i>Journal of Bioscience and Bioengineering</i> , 2020, 129, 632-637.	2.2	9
59	Disulfide linked hetero dimeric peptide arrays for screening functional peptides inside cells. <i>Journal of Bioscience and Bioengineering</i> , 2020, 129, 613-618.	2.2	9
60	Machine learning screening of bile acid-binding peptides in a peptide database derived from food proteins. <i>Scientific Reports</i> , 2021, 11, 16123.	3.3	9
61	Ex vivo culture of circulating tumor cells using magnetic force-based coculture on a fibroblast feeder layer. <i>Biotechnology Journal</i> , 2016, 11, 1433-1442.	3.5	8
62	Alcohol-tolerant mutants of cyanobacterium <i>Synechococcus elongatus</i> PCC 7942 obtained by single-cell mutant screening system. <i>Biotechnology and Bioengineering</i> , 2017, 114, 1771-1778.	3.3	8
63	Mutations responsible for alcohol tolerance in the mutant of <i>Synechococcus elongatus</i> PCC 7942 (SY1043) obtained by single-cell screening system. <i>Journal of Bioscience and Bioengineering</i> , 2018, 125, 572-577.	2.2	8
64	Predictive selection and evaluation of appropriate functional peptides for intestinal delivery with a porous silica gel. <i>Journal of Bioscience and Bioengineering</i> , 2019, 128, 44-49.	2.2	8
65	Selective Elimination of Bitter Peptides by Adsorption to Heat-treated Porous Silica Gel. <i>Food Science and Technology Research</i> , 2019, 25, 179-186.	0.6	8
66	Searching for high-binding peptides to bile acid for inhibition of intestinal cholesterol absorption using principal component analysis. <i>Journal of Bioscience and Bioengineering</i> , 2019, 127, 366-371.	2.2	8
67	Metabolic flux analysis of genetically engineered <i>Saccharomyces cerevisiae</i> that produces lactate under micro-aerobic conditions. <i>Bioprocess and Biosystems Engineering</i> , 2013, 36, 1261-1265.	3.4	7
68	Open-Chamber Co-Culture Microdevices for Single-Cell Analysis of Skeletal Muscle Myotubes and Motor Neurons with Neuromuscular Junctions. <i>Biochip Journal</i> , 2019, 13, 127-132.	4.9	7
69	Miniaturized skeletal muscle tissue fabrication for measuring contractile activity. <i>Journal of Bioscience and Bioengineering</i> , 2021, 131, 434-441.	2.2	7
70	Liver Suction-Mediated Transfection in Mice Using a Pressure-Controlled Computer System. <i>Biological and Pharmaceutical Bulletin</i> , 2014, 37, 569-575.	1.4	6
71	A single cell culture system using lectin-conjugated magnetite nanoparticles and magnetic force to screen mutant cyanobacteria. <i>Biotechnology and Bioengineering</i> , 2016, 113, 112-119.	3.3	6
72	Optimization of renal transfection using a renal suction-mediated transfection method in mice. <i>Journal of Drug Targeting</i> , 2016, 24, 450-456.	4.4	6

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73	Determining Transgene Expression Characteristics Using a Suction Device with Multiple Hole Adjusting a Left Lateral Lobe of the Mouse Liver. <i>Biological and Pharmaceutical Bulletin</i> , 2018, 41, 944-950.	1.4	6
74	Bile acid micelle disruption activity of short-chain peptides from tryptic hydrolyzate of edible proteins. <i>Journal of Bioscience and Bioengineering</i> , 2020, 130, 514-519.	2.2	5
75	Effect of cell-extracellular matrix interaction on myogenic characteristics and artificial skeletal muscle tissue. <i>Journal of Bioscience and Bioengineering</i> , 2020, 130, 98-105.	2.2	5
76	Investigation of Denaturation of Hydrophobic Perfluoropolymer Surfaces and Their Applications for Micropatterns on Biochip. <i>Journal of Microelectromechanical Systems</i> , 2012, 21, 62-67.	2.5	4
77	Regulation of the Distribution of Cells in Mixed Spheroids by Altering Migration Direction. <i>Tissue Engineering - Part A</i> , 2019, 25, 390-398.	3.1	4
78	Calcium Peroxide-Containing Polydimethylsiloxane-Based Microwells for Inhibiting Cell Death in Spheroids through Improved Oxygen Supply. <i>Biological and Pharmaceutical Bulletin</i> , 2021, 44, 1458-1464.	1.4	4
79	Agonist/Antagonist Activity of Oxytocin Variants Obtained from Free Cyclic Peptide Libraries Generated via Amino Acid Substitution. <i>ACS Omega</i> , 2021, 6, 31244-31252.	3.5	4
80	Gene delivery in mice using an implanted pneumatically-actuated microsystem. , 2011, , .		3
81	Fed-batch system for cultivating genetically engineered yeast that produces lactic acid via the fermentative promoter. <i>Journal of Bioscience and Bioengineering</i> , 2013, 115, 193-195.	2.2	3
82	Tissue suction-mediated gene transfer to the beating heart in mice. <i>PLoS ONE</i> , 2020, 15, e0228203.	2.5	3
83	Screening of a novel free fatty acid receptor 1 (FFAR1) agonist peptide by phage display and machine learning based-amino acid substitution. <i>Biochemical and Biophysical Research Communications</i> , 2021, 550, 177-183.	2.1	3
84	Microarray profiling of gene expression in C2C12 myotubes trained by electric pulse stimulation. <i>Journal of Bioscience and Bioengineering</i> , 2021, 132, 417-422.	2.2	3
85	In Silico Screening of a Bile Acid Micelle Disruption Peptide for Oral Consumptions from Edible Peptide Database. <i>Foods</i> , 2021, 10, 2496.	4.3	3
86	Incorporation of Gelatin Microspheres into HepG2 Human Hepatocyte Spheroids for Functional Improvement through Improved Oxygen Supply to Spheroid Core. <i>Biological and Pharmaceutical Bulletin</i> , 2020, 43, 1220-1225.	1.4	3
87	Pep-MS assay: Protease hydrolysis assay system using photo-cleavable peptide array and mass spectrometer. <i>Journal of Bioscience and Bioengineering</i> , 2019, 128, 156-161.	2.2	2
88	Effect of Magnetic Nanoparticle Internalization on Cell Density in Skeletal Muscle Tissue. <i>IEEE Transactions on Electronics, Information and Systems</i> , 2021, 141, 795-801.	0.2	2
89	Selective concentration of antimicrobial peptides to heat-treated porous silica gel using adsorption/desorption. <i>Journal of Bioscience and Bioengineering</i> , 2022, 133, 161-167.	2.2	2
90	Development of microfluidic chip for entrapping tobacco BY-2 cells. <i>PLoS ONE</i> , 2022, 17, e0266982.	2.5	2

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91	Screening of anti-atrophic peptides by using photo-cleavable peptide array and 96-well scale contractile human skeletal muscle atrophy models. <i>Biotechnology and Bioengineering</i> , 2022, 119, 2196-2205.	3.3	2
92	Fabrication of 3D Tissue-Like Structure Using Magnetite Nanoparticles and Magnetic Force. , 2006, , .		1
93	Integration of Skeletal Muscle Cell onto Si-MEMS and its Generative Force Measurement. , 2009, , .		1
94	Increasing the activity of cell adherent cyclic NGR peptides by optimizing the peptide length and amino acid character. <i>Journal of Peptide Science</i> , 2021, 27, e3287.	1.4	1
95	Simple stain-free screening method for pectinolytic microorganisms under alkalophilic conditions. <i>Biotechnology Letters</i> , 2021, 43, 1905-1911.	2.2	1
96	Development of in vivo gene delivery methods in mice using tissue suction devices for abdominal endoscopic gene therapy. , 2012, , .		0
97	Screening of FFAR1-Activating Peptides by Molecular Structural Analysis. <i>Kagaku Kagaku Ronbunshu</i> , 2021, 47, 64-68.	0.3	0
98	Magnetic Force-Based Tissue Engineering of Skeletal Muscle for Bio-Actuator. , 2010, , 171-176.		0
99	Fabrication of Skeletal Muscle Tissue from C2C12 Myoblast Cell Towards the Use as Bio-Actuator. , 2010, , 177-183.		0