

# Kazunori Shimizu

## List of Publications by Year in descending order

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Version: 2024-02-01

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  | 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        |
| 2  | 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         |
| 3  | Development of microfluidic chip for entrapping tobacco BY-2 cells. <i>PLoS ONE</i> , 2022, 17, e0266982.   | 2.5 | 2         |
| 4  | 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         |
| 5  | 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         |
| 6  | 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        |
| 7  | 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         |
| 8  | Miniaturized skeletal muscle tissue fabrication for measuring contractile activity. <i>Journal of Bioscience and Bioengineering</i> , 2021, 131, 434-441.   | 2.2 | 7         |
| 9  | Screening of FFAR1-Activating Peptides by Molecular Structural Analysis. <i>Kagaku Kogaku Ronbunshu</i> , 2021, 47, 64-68.  | 0.3 | 0         |
| 10 | Simple stain-free screening method for pectinolytic microorganisms under alkalophilic conditions. <i>Biotechnology Letters</i> , 2021, 43, 1905-1911.   | 2.2 | 1         |
| 11 | Effect of Magnetic Nanoparticle Internalization on Cell Density in Skeletal Muscle Tissue. <i>IEEJ Transactions on Electronics, Information and Systems</i> , 2021, 141, 795-801.   | 0.2 | 2         |
| 12 | 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         |
| 13 | 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         |
| 14 | 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         |
| 15 | 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         |
| 16 | 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         |
| 17 | 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         |
| 18 | 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         |

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|----|--|-----|-----------|
| 19 | 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        |
| 20 | 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         |
| 21 | Machine Learning-Based Amino Acid Substitution of Short Peptides: Acquisition of Peptides with Enhanced Inhibitory Activities against $\alpha$ -Amylase and $\alpha$ -Glucosidase. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 6117-6125. | 5.2 | 11        |
| 22 | Tissue suction-mediated gene transfer to the beating heart in mice. <i>PLoS ONE</i> , 2020, 15, e0228203.  | 2.5 | 3         |
| 23 | 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         |
| 24 | 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         |
| 25 | 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         |
| 26 | 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         |
| 27 | 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         |
| 28 | 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         |
| 29 | 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         |
| 30 | 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         |
| 31 | 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        |
| 32 | 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         |
| 33 | 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        |
| 34 | 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         |
| 35 | Interaction between porous silica gel microcarriers and peptides for oral administration of functional peptides. <i>Scientific Reports</i> , 2018, 8, 10971.   | 3.3 | 11        |
| 36 | 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        |

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|----|---|-----|-----------|
| 37 | In-process evaluation of culture errors using morphology-based image analysis. <i>Regenerative Therapy</i> , 2018, 9, 15-23.  | 3.0 | 17        |
| 38 | 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        |
| 39 | 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         |
| 40 | 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        |
| 41 | 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        |
| 42 | Characterization of transgene expression and pDNA distribution of the suctioned kidney in mice. <i>Drug Delivery</i> , 2017, 24, 906-917.   | 5.7 | 15        |
| 43 | 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        |
| 44 | 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        |
| 45 | 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        |
| 46 | Three-Dimensional Culture Model of Skeletal Muscle Tissue with Atrophy Induced by Dexamethasone. <i>Bioengineering</i> , 2017, 4, 56.   | 3.5 | 34        |
| 47 | 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         |
| 48 | 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        |
| 49 | Plasma-activated medium selectively eliminates undifferentiated human induced pluripotent stem cells. <i>Regenerative Therapy</i> , 2016, 5, 55-63.   | 3.0 | 26        |
| 50 | 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         |
| 51 | 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         |
| 52 | Increased Insulin Secretion from Insulin-Secreting Cells by Construction of Mixed Multicellular Spheroids. <i>Pharmaceutical Research</i> , 2016, 33, 247-256.  | 3.5 | 20        |
| 53 | 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        |
| 54 | Microfluidic devices for construction of contractile skeletal muscle microtissues. <i>Journal of Bioscience and Bioengineering</i> , 2015, 119, 212-216.  | 2.2 | 48        |

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|----|---|-----|-----------|
| 55 | 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        |
| 56 | Neutralized Nanoparticle Composed of SSâ€Cleavable and pHâ€Activated Lipidâ€Like Material as a Longâ€Lasting and Liverâ€Specific Gene Delivery System. <i>Advanced Healthcare Materials</i> , 2014, 3, 1222-1229.                         | 7.6 | 35        |
| 57 | 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        |
| 58 | 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         |
| 59 | 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         |
| 60 | 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        |
| 61 | 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        |
| 62 | 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         |
| 63 | Development of in vivo gene delivery methods in mice using tissue suction devices for abdominal endoscopic gene therapy. , 2012, , .  |     | 0         |
| 64 | 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        |
| 65 | Implantable pneumatically actuated microsystem for renal pressure-mediated transfection in mice. <i>Journal of Controlled Release</i> , 2012, 159, 85-91.   | 9.9 | 10        |
| 66 | 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         |
| 67 | Gene delivery in mice using an implanted pneumatically-actuated microsystem. , 2011, , .  |     | 3         |
| 68 | 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        |
| 69 | 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        |
| 70 | 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        |
| 71 | 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        |
| 72 | 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        |

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|----|---|-----|-----------|
| 73 | 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        |
| 74 | 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        |
| 75 | 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        |
| 76 | 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        |
| 77 | Enhancement of C2C12 differentiation by perfluorocarbon-mediated oxygen delivery. <i>Journal of Bioscience and Bioengineering</i> , 2010, 110, 359-362.   | 2.2 | 11        |
| 78 | Oxygen plasma-treated thermoresponsive polymer surfaces for cell sheet engineering. <i>Biotechnology and Bioengineering</i> , 2010, 106, 303-310.   | 3.3 | 50        |
| 79 | 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        |
| 80 | 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        |
| 81 | 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        |
| 82 | Magnetic Force-Based Tissue Engineering of Skeletal Muscle for Bio-Actuator. , 2010, , 171-176.   |     | 0         |
| 83 | Fabrication of Skeletal Muscle Tissue from C2C12 Myoblast Cell Towards the Use as Bio-Actuator. , 2010, , 177-183.  |     | 0         |
| 84 | Integration of Skeletal Muscle Cell onto Si-MEMS and its Generative Force Measurement. , 2009, , .  |     | 1         |
| 85 | 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        |
| 86 | 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        |
| 87 | 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        |
| 88 | 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        |
| 89 | 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        |
| 90 | 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        |

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|----|---|-----|-----------|
| 91 | Construction of multi-layered cardiomyocyte sheets using magnetite nanoparticles and magnetic force. <i>Biotechnology and Bioengineering</i> , 2007, 96, 803-809.   | 3.3 | 87        |
| 92 | 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       |
| 93 | 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       |
| 94 | 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        |
| 95 | Fabrication of 3D Tissue-Like Structure Using Magnetite Nanoparticles and Magnetic Force. , 2006, , .   |     | 1         |
| 96 | 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        |
| 97 | 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        |
| 98 | 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        |
| 99 | 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        |