Ryo Sudo

List of Publications by Year
in descending order

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74 papers	2,790 citations	218381 26 h-index	189595 50 g-index
78 all docs	78 docs citations	78 times ranked	3850 citing authors

#	Article	IF	Citations
1	Microfluidic assay for simultaneous culture of multiple cell types on surfaces or within hydrogels. Nature Protocols, 2012, 7, 1247-1259.	5.5	518
2	Cell migration into scaffolds under co-culture conditions in a microfluidic platform. Lab on A Chip, 2009, 9, 269-275.	3.1	456
3	Transportâ€mediated angiogenesis in 3D epithelial coculture. FASEB Journal, 2009, 23, 2155-2164.	0.2	179
4	Effects of the Mechanical Properties of Collagen Gel on the In Vitro Formation of Microvessel Networks by Endothelial Cells. Tissue Engineering, 2007, 13, 1443-1453.	4.9	166
5	In vitro 3D collective sprouting angiogenesis under orchestrated ANG-1 and VEGF gradients. Lab on A Chip, 2011, 11, 2175.	3.1	142
6	Microfluidic Platforms for Studies of Angiogenesis, Cell Migration, and Cellâ€“Cell Interactions. Annals of Biomedical Engineering, 2010, 38, 1164-1177.	1.3	140
7	Microfluidic devices for studying heterotypic cell-cell interactions and tissue specimen cultures under controlled microenvironments. Biomicrofluidics, 2011, 5, 013406.	1.2	117
8	Surfaceâ€Treatmentâ€Induced Threeâ€Dimensional Capillary Morphogenesis in a Microfluidic Platform. Advanced Materials, 2009, 21, 4863-4867.	11.1	85
9	Balance of interstitial flow magnitude and vascular endothelial growth factor concentration modulates three-dimensional microvascular network formation. APL Bioengineering, 2019, 3, 036102.	3.3	63
10	Intra-aneurysmal hemodynamic alterations by a self-expandable intracranial stent and flow diversion stent: high intra-aneurysmal pressure remains regardless of flow velocity reduction. Journal of NeuroInterventional Surgery, 2013, 5, iii38-iii42.	2.0	62
11	Reconstruction of 3D stackedâ€up structures by rat small hepatocytes on microporous membranes. FASEB Journal, 2005, 19, 1695-1697.	0.2	57
12	Integration of neurogenesis and angiogenesis models for constructing a neurovascular tissue. Scientific Reports, 2017, 7, 17349.	1.6	50
13	Endothelium-induced three-dimensional invasion of heterogeneous glioma initiating cells in a microfluidic coculture platform. Integrative Biology (United Kingdom), 2017, 9, 762-773.	0.6	49
14	Laminin Î±5 mediates ectopic adhesion of hepatocellular carcinoma through integrins and/or Lutheran/basal cell adhesion molecule. Experimental Cell Research, 2008, 314, 2579-2590.	1.2	45
15	Hepatic Stellate Cell-Mediated Three-Dimensional Hepatocyte and Endothelial Cell Triculture Model. Tissue Engineering - Part A, 2011, 17, 361-370.	1.6	44
16	Comparison of organ-specific endothelial cells in terms of microvascular formation and endothelial barrier functions. Microvascular Research, 2019, 122, 60-70.	1.1	44
17	Reconstruction of 3D stacked hepatocyte tissues using degradable, microporous poly() Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	5.7	42
18	Construction of Continuous Capillary Networks Stabilized by Pericyte-like Perivascular Cells. Tissue Engineering - Part A, 2019, 25, 499-510.	1.6	40

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19	The Lutheran/Basal Cell Adhesion Molecule Promotes Tumor Cell Migration by Modulating Integrin-mediated Cell Attachment to Laminin-511 Protein. Journal of Biological Chemistry, 2013, 288, 30990-31001.	1.6	36
20	A three-dimensional microfluidic tumor cell migration assay to screen the effect of anti-migratory drugs and interstitial flow. Microfluidics and Nanofluidics, 2013, 14, 969-981.	1.0	33
21	Generation of functional liver organoids on combining hepatocytes and cholangiocytes with hepatobiliary connections ex vivo. Nature Communications, 2021, 12, 3390.	5.8	33
22	Concentration gradients in microfluidic 3D matrix cell culture systems. International Journal of Micro-nano Scale Transport, 2010, 1, 27-36.	0.2	30
23	Bile canalicular formation in hepatic organoid reconstructed by rat small hepatocytes and nonparenchymal cells. Journal of Cellular Physiology, 2004, 199, 252-261.	2.0	29
24	Multiscale tissue engineering for liver reconstruction. Organogenesis, 2014, 10, 216-224.	0.4	29
25	Ductular Network Formation by Rat Biliary Epithelial Cells in the Dynamical Culture with Collagen Gel and Dimethylsulfoxide Stimulation. American Journal of Pathology, 2008, 173, 494-506.	1.9	28
26	Endothelial Progenitor Cells Promote Directional Three-Dimensional Endothelial Network Formation by Secreting Vascular Endothelial Growth Factor. PLoS ONE, 2013, 8, e82085.	1.1	28
27	Pial Arteries Respond Earlier than Penetrating Arterioles to Neural Activation in the Somatosensory Cortex in Awake Mice Exposed to Chronic Hypoxia: An Additional Mechanism to Proximal Integration Signaling?. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1761-1770.	2.4	25
28	Construction of sinusoid-scale microvessels in perfusion culture of a decellularized liver. Acta Biomaterialia, 2019, 95, 307-318.	4.1	24
29	Measuring the Vascular Diameter of Brain Surface and Parenchymal Arteries in Awake Mouse. Advances in Experimental Medicine and Biology, 2013, 789, 419-425.	0.8	23
30	Layer-Specific Dilation of Penetrating Arteries Induced by Stimulation of the Nucleus Basalis of Meynert in the Mouse Frontal Cortex. Journal of Cerebral Blood Flow and Metabolism, 2013, 33, 1440-1447.	2.4	22
31	Spatio-Temporal Control of Hepatic Stellate Cellâ€“Endothelial Cell Interactions for Reconstruction of Liver Sinusoids In Vitro. Tissue Engineering - Part A, 2012, 18, 1045-1056.	1.6	19
32	Coordinated Movement of Bile Canalicular Networks Reconstructed by Rat Small Hepatocytes. Annals of Biomedical Engineering, 2005, 33, 696-708.	1.3	17
33	The Stabilization Effect of Mesenchymal Stem Cells on the Formation of Microvascular Networks in a Microfluidic Device. Journal of Biomechanical Science and Engineering, 2013, 8, 114-128.	0.1	14
34	A Novel Three-Dimensional Culture System for Oligodendrocyte Precursor Cells. Stem Cells and Development, 2017, 26, 1078-1085.	1.1	12
35	Contribution of Rat Endothelial Progenitor Cells on Three-Dimensional Network FormationIn Vitro. Tissue Engineering - Part A, 2009, 15, 2727-2739.	1.6	11
36	Control of vessel diameters mediated by flow-induced outward vascular remodeling in vitro. Biofabrication, 2020, 12, 045008.	3.7	11

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37	Reconstruction of hepatic stellate cell-incorporated liver capillary structures in small hepatocyte tri-culture using microporous membranes. Journal of Tissue Engineering and Regenerative Medicine, 2015, 9, 247-256.	1.3	8
38	Fabrication of type I collagen microcarrier using a microfluidic 3D T-junction device and its application for the quantitative analysis of cellâ€“ECM interactions. Biofabrication, 2016, 8, 035014.	3.7	8
39	Solute diffusion through fibrotic tissue formed around protective cage system for implantable devices. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2015, 103, 1180-1187.	1.6	7
40	Self-organization of hepatocyte morphogenesis depending on the size of collagen microbeads relative to hepatocytes. Biofabrication, 2019, 11, 035007.	3.7	7
41	Heterogeneous Glioma Cell Invasion Under Interstitial Flow Depending on Their Differentiation Status. Tissue Engineering - Part A, 2021, 27, 467-478.	1.6	7
42	Morphological and Functional Changes of Rat Hepatocytes by Vertical Cell-Cell Adhesion in Three-Dimensional Stacked-Up Culture. Journal of Biomechanical Science and Engineering, 2008, 3, 235-248.	0.1	4
43	Establishment of an in vitro vascular anastomosis model in a microfluidic device. Journal of Biomechanical Science and Engineering, 2019, 14, 18-00521-18-00521.	0.1	4
44	Reconstruction of Hepatic Tissue Structures Using Interstitial Flow in a Microfluidic Device. Methods in Molecular Biology, 2019, 1905, 167-174.	0.4	4
45	Air-pressure-driven Separable Microdevice to Control the Anisotropic Curvature of Cell Culture Surface. Analytical Sciences, 2020, 36, 1015-1019.	0.8	4
46	Deformability and adhesive force of artificial platelets measured by atomic force microscopy. Journal of Biorheology, 2009, 23, 35-40.	0.2	3
47	Integrated Vascular Engineering: Vascularization of Reconstructed Tissue. , 2016, , 297-332.		3
48	Steady and pulsatile shear stress induce different three-dimensional endothelial networks through pseudopodium formation. Journal of Biorheology, 2013, 27, 38-48.	0.2	2
49	The Effect of Micropatterned Pores on the Formation and Movement of Small Hepatocyte Colonies. Journal of Biomechanical Science and Engineering, 2008, 3, 249-262.	0.1	1
50	Motion of polymerized albumin particles in a model arteriole in the presence of red blood cells. Journal of Biorheology, 2009, 23, 29-34.	0.2	1
51	Three-Dimensional Network Formation of Endothelial Cells Depended on Shear Stress(Fluids) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Engineers Series B B-hen, 2010, 76, 1061-1067.	0.2	1
52	Microfluidic Hydrostatic Deposition Patterning for a confined hepatocyte-biliary epithelial cell co-culture system. , 2011, , .		1
53	Construction of stable capillary networks using a microfluidic device. , 2015, 2015, 350-3.		1
54	Induction of Cardiomyocyte Differentiation From Mouse Embryonic Stem Cells in a Confined Microfluidic Environment. , 2009, , .		0

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55	Drift and fluctuating motion of artificial platelets during the lateral transport and adhesion process near the wall. Journal of Biorheology, 2013, 26, 11-20.	0.2	0
56	Comparison of simulated structural deformation with experimental results after Wingspan stenting. Neurological Research, 2014, 36, 752-756.	0.6	0
57	Progress and challenges in vascular tissue engineering using self-organization/pre-designed approaches. Journal of Biomechanical Science and Engineering, 2021, 16, 20-00537-20-00537.	0.1	0
58	Ductular morphogenesis and polarization of rat biliary epithelial cells in collagen gel sandwich culture(3A1 Cellular & Tissue Engineering & Biomaterials I). The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics, 2007, 2007.3, S169.	0.0	0
59	P-17 DESIGN OF MULTILAYERED COCULTURE SYSTEM COMPOSED OF SMALL HEPATOCYTES, LIVER STELLATE CELLS AND SINUSOIDAL ENDOTHELIAL CELLS. The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics, 2007, 2007.3, S105.	0.0	0
60	Design of biodegradable Poly(DL-lactide-co-glycolide)(PLGA) microporous membrane for the reconstruction of three-dimentional hepatic tissues(3A3 Cellular & Tissue Engineering &) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 and Technology in Biomechanics, 2007, 2007.3, S180.	0.0	0
61	P-18 Effect of shear stress on three-dimensional microvessel network formation of endothelial cells. The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics, 2007, 2007.3, S106.	0.0	0
62	308 Differentiation of rat biliary epithelial cells involved in ductular morphogenesis in collagen gel sandwich culture. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2008, 2007.20, 93-94.	0.0	0
63	510 Reconstruction of 3D stacked-up structures of rat small hepatocytes by biodegradation of poly (dl-lactide-co-glycolide) microporous membrane. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2009, 2008.21, 203-204.	0.0	0
64	506 Design of Multilayered Coculture System Composed of Small Hepatocytes, Hepatic Stellate Cells and Endothelial Cells. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2009, 2008.21, 195-196.	0.0	0
65	8H-09 Development of Dielectrophoretic Cell Patterning for Tissue Engineering. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2011, 2010.23, 157-158.	0.0	0
66	7C13 Construction of micro vascular networks in a co-culture model of endothelial cells and mesenchymal stem cells. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2012, 2012.24, 7C13.	0.0	0
67	3F07 The comparison between brain surface artery and parenchymal arteriole response to single whisker stimulation in mouse somatosensory cortex. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2013, 2013.25, 631-632.	0.0	0
68	1C23 Effect of Interstitial Flow on Reconstruction of Capillary Networks in HUVEC-MSC coculture. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2014, 2014.26, 81-82.	0.0	0
69	1C24 A MICROFLUIDIC INVASION ASSAY FOR GLIOMA-INITIATING CELLS WITH HUVEC IN THREE-DIMENSIONAL CULTURE. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2014, 2014.26, 83-84.	0.0	0
70	2C46 Initiation of capillary formation induced by the interaction between mesenchymal stem cells and endothelial cells. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2015, 2015.27, 425-426.	0.0	0
71	2G14 The effect of endothelial cells on the process of glioma invasion. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2016, 2016.28, _2G14-1_-_2G14-4_.	0.0	0
72	Microfluidic Device Setting by Coculturing Endothelial Cells and Mesenchymal Stem Cells. Methods in Molecular Biology, 2021, 2206, 57-66.	0.4	0

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73	Multi-cellular Morphogenesis Derived by Interstitial Flow. Seibutsu Butsuri, 2020, 60, 025-030.	0.0	0
74	Spatial heterogeneity of invading glioblastoma cells regulated by paracrine factors. Tissue Engineering - Part A, 2021, , .	1.6	0