Takashi Miura

List of Publications by Year
in descending order

61 papers	3,213 citations	257429 24 h-index	182417 51 g-index
69 all docs	69 docs citations	69 times ranked	3691 citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanical loading of intraluminal pressure mediates wound angiogenesis by regulating the TOCA family of F-BAR proteins. Nature Communications, 2022, 13, 2594.	12.8	16
2	Stripe and spot selection in cusp patterning of mammalian molar formation. Scientific Reports, 2022, 12, .	3.3	5
3	Effective nonlocal kernels on reactionâ€“diffusion networks. Journal of Theoretical Biology, 2021, 509, 110496.	1.7	9
4	Mesenchymal glioblastoma-induced mature de-novo vessel formation of vascular endothelial cells in a microfluidic device. Molecular Biology Reports, 2021, 48, 395-403.	2.3	14
5	Mathematical Modeling of Dynamic Cellular Association Patterns in Seminiferous Tubules. Bulletin of Mathematical Biology, 2021, 83, 33.	1.9	0
6	Mathematical modeling of palatal suture pattern formation: morphological differences between sagittal and palatal sutures. Scientific Reports, 2021, 11, 8995.	3.3	7
7	Quantitative modeling of regular retinal microglia distribution. Scientific Reports, 2021, 11, 22671.	3.3	7
8	Vascularized cancer on a chip: The effect of perfusion on growth and drug delivery of tumor spheroid. Biomaterials, 2020, 229, 119547.	11.4	201
9	Oxygen consumption rate of tumour spheroids during necrotic-like core formation. Analyst, The, 2020, 145, 6342-6348.	3.5	32
10	Mechanism underlying dynamic scaling properties observed in the contour of spreading epithelial monolayer. Physical Review E, 2020, 102, 062408.	2.1	1
11	Mechanisms of endothelial cell coverage by pericytes: computational modelling of cell wrapping and<i>in vitro</i>experiments. Journal of the Royal Society Interface, 2020, 17, 20190739.	3.4	5
12	An On-Chip Vascular Network to Investigate Pericyte Migration and Intercellular Signaling. , 2020, , .		1
13	Noise-induced scaling in skull suture interdigitation. PLoS ONE, 2020, 15, e0235802.	2.5	3
14	A new perfusion culture method with a self-organized capillary network. PLoS ONE, 2020, 15, e0240552.	2.5	20
15	Remodeling mechanisms determine size distributions in developing retinal vasculature. PLoS ONE, 2020, 15, e0235373.	2.5	2
16	Claudins and JAM-A coordinately regulate tight junction formation and epithelial polarity. Journal of Cell Biology, 2019, 218, 3372-3396.	5.2	152
17	Perfusable Vascular Network with a Tissue Model in a Microfluidic Device. Journal of Visualized Experiments, 2018, , .	0.3	6
18	Combining Turing and 3D vertex models reproduces autonomous multicellular morphogenesis with undulation, tubulation, and branching. Scientific Reports, 2018, 8, 2386.	3.3	44

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19	MUTE Directly Orchestrates Cell-State Switch and the Single Symmetric Division to Create Stomata. Developmental Cell, 2018, 45, 303-315.e5.	7.0	97
20	Elasticity-based boosting of neuroepithelial nucleokinesis via indirect energy transfer from mother to daughter. PLoS Biology, 2018, 16, e2004426.	5.6	21
21	Engineering a Perfusable Vascular Network in a Microfluidic Device for a Morphological Analysis. IEEJ Transactions on Sensors and Micromachines, 2018, 138, 275-280.	0.1	1
22	Exogenous Cellulase Switches Cell Interdigitation to Cell Elongation in an RIC1-dependent Manner in<i>Arabidopsis thaliana</i>Cotyledon Pavement Cells. Plant and Cell Physiology, 2017, 58, pcw183.	3.1	30
23	Engineering a three-dimensional tissue model with a perfusable vasculature in a microfluidic device. , 2017, , .		0
24	Reelin transiently promotes N-cadherinâ€"dependent neuronal adhesion during mouse cortical development. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2048-2053.	7.1	46
25	Integrating perfusable vascular networks with a three-dimensional tissue in a microfluidic device. Integrative Biology (United Kingdom), 2017, 9, 506-518.	1.3	188
26	Mathematical modeling for meshwork formation of endothelial cells in fibrin gels. Journal of Theoretical Biology, 2017, 429, 95-104.	1.7	5
27	Development of three-dimensional tumor model with a perfusable vasculature using a microfluidic device. Mechanisms of Development, 2017, 145, S34.	1.7	0
28	Reconstitutive analyses of impacts of pericytes and blood flow on angiogenic morphogenesis using a microfluidic device. Mechanisms of Development, 2017, 145, S69.	1.7	0
29	A Theoretical Model of Jigsaw-Puzzle Pattern Formation by Plant Leaf Epidermal Cells. PLoS Computational Biology, 2016, 12, e1004833.	3.2	30
30	Tissue culture on a chip: Developmental biology applications of selfâ€organized capillary networks in microfluidic devices. Development Growth and Differentiation, 2016, 58, 505-515.	1.5	17
31	Notch-mediated lateral inhibition regulates proneural wave propagation when combined with EGF-mediated reaction diffusion. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5153-62.	7.1	36
32	A new mathematical model for pattern formation by cranial sutures. Journal of Theoretical Biology, 2016, 408, 66-74.	1.7	12
33	Rat Articular Cartilages Change Their Tissue and Protein Compositions During Perinatal Period. Journal of Veterinary Medicine Series C: Anatomia Histologia Embryologia, 2016, 45, 9-18.	0.7	3
34	Fractality of Cranial Sutures. Springer Series in Computational Neuroscience, 2016, , 157-167.	0.3	0
35	Vascular network formation for a long-term spheroid culture by co-culturing endothelial cells and fibroblasts. , 2015, , .		5
36	Models of lung branching morphogenesis. Journal of Biochemistry, 2015, 157, 121-127.	1.7	26

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37	Anatomical study for SLAP lesion repair. Knee Surgery, Sports Traumatology, Arthroscopy, 2014, 22, 435-441.	4.2	13
38	Modeling Lung Branching Morphogenesis. Biological Theory, 2013, 8, 265-273.	1.5	0
39	Turing and Wolpert Work Together During Limb Development. Science Signaling, 2013, 6, pe14.	3.6	11
40	Dynamics of VEGF matrix-retention in vascular network patterning. Physical Biology, 2013, 10, 066007.	1.8	53
41	Fiber components of the shoulder superior labrum. Surgical and Radiologic Anatomy, 2012, 34, 49-56.	1.2	8
42	1P334 1J1420 Development of MR Microscope and three dimensional visualization of the medaka(Bioimaging,Oral Presentations,The 48th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2010, 50, S78-S79.	0.1	0
43	Reaction-Diffusion Model as a Framework for Understanding Biological Pattern Formation. Science, 2010, 329, 1616-1620.	12.6	1,273
44	<i>In vitro</i>Vasculogenesis Models Revisited - Measurement of VEGF Diffusion in Matrigel. Mathematical Modelling of Natural Phenomena, 2009, 4, 118-130.	2.4	24
45	Mechanism of skull suture maintenance and interdigitation. Journal of Anatomy, 2009, 215, 642-655.	1.5	54
46	The cyst-branch difference in developing chick lung results from a different morphogen diffusion coefficient. Mechanisms of Development, 2009, 126, 160-172.	1.7	35
47	T1601-2-1 Development of piezoelectric MEMS deformable mirrors and their application for adaptive optics. The Proceedings of the JSME Annual Meeting, 2009, 2009.8, 245-246.	0.0	0
48	Modeling Lung Branching Morphogenesis. Current Topics in Developmental Biology, 2008, 81, 291-310.	2.2	34
49	Hedgehog signaling is involved in development of the neocortex. Development (Cambridge), 2008, 135, 2717-2727.	2.5	158
50	319 Fluid introduction into vasculature using MEMS device. The Proceedings of the JSME Annual Meeting, 2008, 2008.8, 37-38.	0.0	0
51	Mathematical analysis of a free-boundary model for lung branching morphogenesis. Mathematical Medicine and Biology, 2007, 24, 209-224.	1.2	14
52	Mixed-mode pattern in Doublefoot mutant mouse limbâ€”Turing reactionâ€“diffusion model on a growing domain during limb development. Journal of Theoretical Biology, 2006, 240, 562-573.	1.7	88
53	Modelling in vitro lung branching morphogenesis during development. Journal of Theoretical Biology, 2006, 242, 862-872.	1.7	38
54	Disruption of actin cytoskeleton and anchorage-dependent cell spreading induces apoptotic death of mouse neural crest cells cultured in vitro. The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology, 2005, 282A, 130-137.	2.0	8

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55	Periodic pattern formation in reaction-diffusion systems: An introduction for numerical simulation. Kaibogaku Zasshi Journal of Anatomy, 2004, 79, 112-123.	1.2	31
56	A mesenchyme-free culture system to elucidate the mechanism of otic vesicle morphogenesis. Journal of Anatomy, 2004, 205, 297-312.	1.5	9
57	Speed of pattern appearance in reaction-diffusion models: implications in the pattern formation of limb bud mesenchyme cells. Bulletin of Mathematical Biology, 2004, 66, 627-649.	1.9	62
58	Depletion of FGF acts as a lateral inhibitory factor in lung branching morphogenesis in vitro. Mechanisms of Development, 2002, 116, 29-38.	1.7	47
59	TGF?2 acts as an ?Activator? molecule in reaction-diffusion model and is involved in cell sorting phenomenon in mouse limb micromass culture. Developmental Dynamics, 2000, 217, 241-249.	1.8	104
60	Extracellular matrix environment influences chondrogenic pattern formation in limb bud micromass culture: Experimental verification of theoretical models. The Anatomical Record, 2000, 258, 100-107.	1.8	72
61	A novel method for analysis of the periodicity of chondrogenic patterns in limb bud cell culture: correlation of in vitro pattern formation with theoretical models. Anatomy and Embryology, 2000, 201, 419-428.	1.5	33