

Somin Lee

List of Publications by Year in Descending Order

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Version: 2024-04-24

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

110
papers

3,508
citations

32
h-index

57
g-index

115
ext. papers

4,583
ext. citations

8.4
avg, IF

5.71
L-index

#	Paper	IF	Citations
110	3D micromesh-based hybrid bioprinting: multidimensional liquid patterning for 3D microtissue engineering. <i>NPG Asia Materials</i> , 2022 , 14,	10.3	2
109	Perfusable micro-vascularized 3D tissue array for high-throughput vascular phenotypic screening.. <i>Nano Convergence</i> , 2022 , 9, 16	9.2	5
108	A Petri-Dish with Micromolded Pattern as a Coordinate Indicator for Live-Cell Time Lapse Microscopy. <i>Biochip Journal</i> , 2022 , 16, 27-32	4	0
107	A guide to the organ-on-a-chip. <i>Nature Reviews Methods Primers</i> , 2022 , 2,		21
106	Advances in 3D Vascularized Tumor-on-a-Chip Technology. <i>Advances in Experimental Medicine and Biology</i> , 2022 , 231-256	3.6	0
105	Aspiration-mediated hydrogel micropatterning using rail-based open microfluidic devices for high-throughput 3D cell culture. <i>Scientific Reports</i> , 2021 , 11, 19986	4.9	0
104	Human bone marrow-derived mesenchymal stem cells play a role as a vascular pericyte in the reconstruction of human BBB on the angiogenesis microfluidic chip. <i>Biomaterials</i> , 2021 , 279, 121210	15.6	4
103	Vascularization of iNSC spheroid in a 3D spheroid-on-a-chip platform enhances neural maturation. <i>Biotechnology and Bioengineering</i> , 2021 ,	4.9	1
102	Microvascularized tumor organoids-on-chips: advancing preclinical drug screening with pathophysiological relevance. <i>Nano Convergence</i> , 2021 , 8, 12	9.2	18
101	Anchor-IMPACT: A standardized microfluidic platform for high-throughput antiangiogenic drug screening. <i>Biotechnology and Bioengineering</i> , 2021 , 118, 2524-2535	4.9	1
100	Development of highly functional bioengineered human liver with perfusable vasculature. <i>Biomaterials</i> , 2021 , 265, 120417	15.6	12
99	3D Microfluidic Platform and Tumor Vascular Mapping for Evaluating Anti-Angiogenic RNAi-Based Nanomedicine. <i>ACS Nano</i> , 2021 , 15, 338-350	16.7	11
98	Monolithic digital patterning of polydimethylsiloxane with successive laser pyrolysis. <i>Nature Materials</i> , 2021 , 20, 100-107	27	28
97	Modeling 3D Human Tumor Lymphatic Vessel Network Using High-Throughput Platform. <i>Advanced Biology</i> , 2021 , 5, 2000195		5
96	High-throughput injection molded microfluidic device for single-cell analysis of spatiotemporal dynamics. <i>Lab on A Chip</i> , 2021 , 21, 3150-3158	7.2	7
95	A 3D disease and regeneration model of peripheral nervous system-on-a-chip. <i>Science Advances</i> , 2021 , 7,	14.3	12
94	Three-dimensional microengineered vascularised endometrium-on-a-chip. <i>Human Reproduction</i> , 2021 , 36, 2720-2731	5.7	2

93	High-Throughput 3D Tumor Vasculature Model for Real-Time Monitoring of Immune Cell Infiltration and Cytotoxicity. <i>Frontiers in Immunology</i> , 2021 , 12, 733317	8.4	5
92	Reducing tumor invasiveness by ramucirumab and TGF- β receptor kinase inhibitor in a diffuse-type gastric cancer patient-derived cell model. <i>Cancer Medicine</i> , 2021 , 10, 7253-7262	4.8	1
91	Wearable Electronics: Biocompatible Cost-Effective Electrophysiological Monitoring with Oxidation-Free Cu/Au Core/Shell Nanowire (Adv. Mater. Technol. 12/2020). <i>Advanced Materials Technologies</i> , 2020 , 5, 2070073	6.8	2
90	3D brain angiogenesis model to reconstitute functional human blood-brain barrier in vitro. <i>Biotechnology and Bioengineering</i> , 2020 , 117, 748-762	4.9	49
89	Self-detachable UV-curable polymers for open-access microfluidic platforms. <i>Lab on A Chip</i> , 2020 , 20, 4215-4224	7.2	4
88	Comparison of the Efficacy of Optogenetic Stimulation of Glia versus Neurons in Myelination. <i>ACS Chemical Neuroscience</i> , 2020 , 11, 4280-4288	5.7	2
87	Pneumatically Actuated Microfluidic Platform for Reconstituting 3D Vascular Tissue Compression. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 2027	2.6	9
86	Biocompatible Cost-Effective Electrophysiological Monitoring with Oxidation-Free Cu/Au Core/Shell Nanowire. <i>Advanced Materials Technologies</i> , 2020 , 5, 2000661	6.8	9
85	UPF2 leads to degradation of dendritically targeted mRNAs to regulate synaptic plasticity and cognitive function. <i>Molecular Psychiatry</i> , 2020 , 25, 3360-3379	15.1	12
84	Angiogenesis: Human Ocular Angiogenesis-Inspired Vascular Models on an Injection-Molded Microfluidic Chip (Adv. Healthcare Mater. 15/2019). <i>Advanced Healthcare Materials</i> , 2019 , 8, 1970063	10.1	1
83	Microfluidics-based skin irritation test using 3D angiogenesis platform. <i>APL Bioengineering</i> , 2019 , 3, 0361001	10.1	26
82	Magnetic Nanoparticle-Embedded Hydrogel Sheet with a Groove Pattern for Wound Healing Application. <i>ACS Biomaterials Science and Engineering</i> , 2019 , 5, 3909-3921	5.5	16
81	Optogenetic neuronal stimulation promotes axon outgrowth and myelination of motor neurons in a three-dimensional motor neuron-Schwann cell coculture model on a microfluidic biochip. <i>Biotechnology and Bioengineering</i> , 2019 , 116, 2425-2438	4.9	19
80	Injured Axons Instruct Schwann Cells to Build Constricting Actin Spheres to Accelerate Axonal Disintegration. <i>Cell Reports</i> , 2019 , 27, 3152-3166.e7	10.6	25
79	Human Ocular Angiogenesis-Inspired Vascular Models on an Injection-Molded Microfluidic Chip. <i>Advanced Healthcare Materials</i> , 2019 , 8, e1900328	10.1	16
78	Kinase pathway inhibition restores PSD95 induction in neurons lacking fragile X mental retardation protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 12007-12012	11.5	1
77	High-Throughput Microfluidic 3D Cytotoxicity Assay for Cancer Immunotherapy (CACI-IMPACT Platform). <i>Frontiers in Immunology</i> , 2019 , 10, 1133	8.4	36
76	Engineering tumor vasculature on an injection-molded plastic array 3D culture (IMPACT) platform. <i>Lab on A Chip</i> , 2019 , 19, 2071-2080	7.2	26

75	A FRET assay for the quantitation of inhibitors of exonuclease EcoRV by using parchment paper inkjet-printed with graphene oxide and FAM-labelled DNA. <i>Mikrochimica Acta</i> , 2019 , 186, 211	5.8	6
74	Modeling neural circuit, blood-brain barrier, and myelination on a microfluidic 96 well plate. <i>Biofabrication</i> , 2019 , 11, 035013	10.5	29
73	Optogenetic stimulation promotes Schwann cell proliferation, differentiation, and myelination in vitro. <i>Scientific Reports</i> , 2019 , 9, 3487	4.9	11
72	Optimal diameter reduction ratio of acinar airways in human lungs. <i>PLoS ONE</i> , 2019 , 14, e0204191	3.7	1
71	Dickkopf-3 in aberrant endothelial secretome triggers renal fibroblast activation and endothelial-mesenchymal transition. <i>Nephrology Dialysis Transplantation</i> , 2019 , 34, 49-62	4.3	23
70	Snake fang-inspired stamping patch for transdermal delivery of liquid formulations. <i>Science Translational Medicine</i> , 2019 , 11,	17.5	51
69	Synaptogenesis Stimulates a Proteasome-Mediated Ribosome Reduction in Axons. <i>Cell Reports</i> , 2019 , 28, 864-876.e6	10.6	13
68	Tumor spheroid-on-a-chip: a standardized microfluidic culture platform for investigating tumor angiogenesis. <i>Lab on A Chip</i> , 2019 , 19, 2822-2833	7.2	68
67	3D Microfluidic Bone Tumor Microenvironment Comprised of Hydroxyapatite/Fibrin Composite. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019 , 7, 168	5.8	28
66	Piezo1 incorporates mechanical force signals into the genetic program that governs lymphatic valve development and maintenance. <i>JCI Insight</i> , 2019 , 4,	9.9	54
65	IFN- α drives inflammatory bowel disease pathogenesis through VE-cadherin-directed vascular barrier disruption. <i>Journal of Clinical Investigation</i> , 2019 , 129, 4691-4707	15.9	54
64	Overproduction of recombinant E. coli malate synthase enhances <i>Chlamydomonas reinhardtii</i> biomass by upregulating heterotrophic metabolism. <i>Bioresource Technology</i> , 2019 , 272, 594-598	11	3
63	Liposomal co-delivery-based quantitative evaluation of chemosensitivity enhancement in breast cancer stem cells by knockdown of GRP78/CLU. <i>Journal of Liposome Research</i> , 2019 , 29, 44-52	6.1	20
62	The Schwann Cell as an Active Synaptic Partner. <i>ChemPhysChem</i> , 2018 , 19, 1123-1127	3.2	5
61	Microfluidics in nanoparticle drug delivery; From synthesis to pre-clinical screening. <i>Advanced Drug Delivery Reviews</i> , 2018 , 128, 29-53	18.5	100
60	Detecting the functional complexities between high-density lipoprotein mimetics. <i>Biomaterials</i> , 2018 , 170, 58-69	15.6	12
59	Macular Degeneration: Wet-AMD on a Chip: Modeling Outer Blood-Retinal Barrier In Vitro (Adv. Healthcare Mater. 2/2018). <i>Advanced Healthcare Materials</i> , 2018 , 7, 1870011	10.1	
58	Vibration-induced stress priming during seed culture increases microalgal biomass in high shear field-cultivation. <i>Bioresource Technology</i> , 2018 , 254, 340-346	11	3

57	Microfluidic platform for single cell analysis under dynamic spatial and temporal stimulation. <i>Biosensors and Bioelectronics</i> , 2018 , 104, 58-64	11.8	24
56	Probing the Effect of Bioinspired Nanomaterials on Angiogenic Sprouting With a Microengineered Vascular System. <i>IEEE Nanotechnology Magazine</i> , 2018 , 17, 393-397	2.6	6
55	Wet-AMD on a Chip: Modeling Outer Blood-Retinal Barrier In Vitro. <i>Advanced Healthcare Materials</i> , 2018 , 7, 1700028	10.1	36
54	High-throughput chemical screening to discover new modulators of microRNA expression in living cells by using graphene-based biosensor. <i>Scientific Reports</i> , 2018 , 8, 11413	4.9	11
53	Integrated Platform for Monitoring Single-cell MAPK Kinetics in Computer-controlled Temporal Stimulations. <i>Scientific Reports</i> , 2018 , 8, 11126	4.9	8
52	Microfluidic-based vascularized microphysiological systems. <i>Lab on A Chip</i> , 2018 , 18, 2686-2709	7.2	55
51	Design rules for a tunable merged-tip microneedle. <i>Microsystems and Nanoengineering</i> , 2018 , 4, 29	7.7	20
50	Multiple roles of lymphatic vessels in peripheral lymph node development. <i>Journal of Experimental Medicine</i> , 2018 , 215, 2760-2777	16.6	48
49	From microchannels to microphysiological systems: Development of application specific devices. <i>Microelectronic Engineering</i> , 2018 , 202, 9-18	2.5	6
48	PDMS Sylgard 527-Based Freely Suspended Ultrathin Membranes Exhibiting Mechanistic Characteristics of Vascular Basement Membranes. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 40388-40400	8.5	20
47	Relationship between Pericytes and Endothelial Cells in Retinal Neovascularization: A Histological and Immunofluorescent Study of Retinal Angiogenesis. <i>Korean Journal of Ophthalmology: KJO</i> , 2018 , 32, 70-76	1.2	5
46	Investigation on vascular cytotoxicity and extravascular transport of cationic polymer nanoparticles using perfusable 3D microvessel model. <i>Acta Biomaterialia</i> , 2018 , 76, 154-163	10.8	19
45	Microfluidics within a well: an injection-molded plastic array 3D culture platform. <i>Lab on A Chip</i> , 2018 , 18, 2433-2440	7.2	39
44	Identification of the First Selective Activin Receptor-Like Kinase 1 Inhibitor, a Reversible Version of L-783277. <i>Journal of Medicinal Chemistry</i> , 2017 , 60, 1495-1508	8.3	3
43	PDMS microchannel surface modification with teflon for algal lipid research. <i>Biochip Journal</i> , 2017 , 11, 180-186	4	9
42	Nanoelectrokinetic radial preconcentrator/extractor based on ion concentration polarization 2017 ,		1
41	Microfluidic perfusion bioreactor for optimization of microalgal lipid productivity. <i>Bioresource Technology</i> , 2017 , 233, 433-437	11	12
40	Topography-Guided Control of Local Migratory Behaviors and Protein Expression of Cancer Cells. <i>Advanced Healthcare Materials</i> , 2017 , 6, 1700155	10.1	3

39	Biomimetic Model of Tumor Microenvironment on Microfluidic Platform. <i>Advanced Healthcare Materials</i> , 2017 , 6, 1700196	10.1	79
38	Artificial Slanted Nanocilia Array as a Mechanotransducer for Controlling Cell Polarity. <i>ACS Nano</i> , 2017 , 11, 730-741	16.7	21
37	Highly Efficient and Rapid Neural Differentiation of Mouse Embryonic Stem Cells Based on Retinoic Acid Encapsulated Porous Nanoparticle. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 34634-34640	9.5	13
36	"Open-top" microfluidic device for in vitro three-dimensional capillary beds. <i>Lab on A Chip</i> , 2017 , 17, 3405-3414	7.4	46
35	A Low Permeability Microfluidic Blood-Brain Barrier Platform with Direct Contact between Perfusable Vascular Network and Astrocytes. <i>Scientific Reports</i> , 2017 , 7, 8083	4.9	137
34	Quantum-dot nanoprobe and AOTF based cross talk eliminated six color imaging of biomolecules in cellular system. <i>Analytica Chimica Acta</i> , 2017 , 985, 166-174	6.6	2
33	Protein kinase C and calcineurin cooperatively mediate cell survival under compressive mechanical stress. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 13471-13476	11.5	34
32	Human eye-inspired soft optoelectronic device using high-density MoS-graphene curved image sensor array. <i>Nature Communications</i> , 2017 , 8, 1664	17.4	241
31	Tumor Microenvironment on a Chip: The Progress and Future Perspective. <i>Bioengineering</i> , 2017 , 4,	5.3	40
30	Interstitial flow regulates the angiogenic response and phenotype of endothelial cells in a 3D culture model. <i>Lab on A Chip</i> , 2016 , 16, 4189-4199	7.2	109
29	Microvessels-on-a-Chip to Assess Targeted Ultrasound-Assisted Drug Delivery. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 31541-31549	9.5	17
28	Multiplex microfluidic system integrating sequential operations of microalgal lipid production. <i>Analyst, The</i> , 2016 , 141, 1218-25	5	13
27	Creation of a Hybrid Scaffold with Dual Configuration of Aligned and Random Electrospun Fibers. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 2826-32	9.5	41
26	Enhanced Bone Repair by Guided Osteoblast Recruitment Using Topographically Defined Implant. <i>Tissue Engineering - Part A</i> , 2016 , 22, 654-64	3.9	25
25	One-photon and two-photon stimulation of neurons in a microfluidic culture system. <i>Lab on A Chip</i> , 2016 , 16, 1684-90	7.2	18
24	The proteasome controls presynaptic differentiation through modulation of an on-site pool of polyubiquitinated conjugates. <i>Journal of Cell Biology</i> , 2016 , 212, 789-801	7.3	30
23	Three-dimensional biomimetic model to reconstitute sprouting lymphangiogenesis in vitro. <i>Biomaterials</i> , 2016 , 78, 115-28	15.6	98
22	Spatio-temporal co-ordination of RhoA, Rac1 and Cdc42 activation during prototypical edge protrusion and retraction dynamics. <i>Scientific Reports</i> , 2016 , 6, 21901	4.9	58

21	Use of Microfluidic Technology to Monitor the Differentiation and Migration of Human ESC-Derived Neural Cells. <i>Methods in Molecular Biology</i> , 2016 , 1502, 223-35	1.4	1
20	Engineering-Aligned 3D Neural Circuit in Microfluidic Device. <i>Advanced Healthcare Materials</i> , 2016 , 5, 159-66	10.1	50
19	Microfluidic vascularized bone tissue model with hydroxyapatite-incorporated extracellular matrix. <i>Lab on A Chip</i> , 2015 , 15, 3984-8	7.2	81
18	Involvement of 14-3-3 in tubulin instability and impaired axon development is mediated by Tau. <i>FASEB Journal</i> , 2015 , 29, 4133-44	0.9	50
17	Engineering a Blood Vessel Network Module for Body-on-a-Chip Applications. <i>Journal of the Association for Laboratory Automation</i> , 2015 , 20, 296-301		13
16	Frequency modulation of ERK activation dynamics rewires cell fate. <i>Molecular Systems Biology</i> , 2015 , 11, 838	12.2	122
15	Free-Standing Gold-Nanoparticle Monolayer Film Fabricated by Protein Self-Assembly of Synuclein. <i>Angewandte Chemie</i> , 2015 , 127, 4654-4659	3.6	3
14	Nanogrooved substrate promotes direct lineage reprogramming of fibroblasts to functional induced dopaminergic neurons. <i>Biomaterials</i> , 2015 , 45, 36-45	15.6	50
13	Engineering of a Biomimetic Pericyte-Covered 3D Microvascular Network. <i>PLoS ONE</i> , 2015 , 10, e0133880	3.7	83
12	A bioengineered array of 3D microvessels for vascular permeability assay. <i>Microvascular Research</i> , 2014 , 91, 90-8	3.7	62
11	A growth factor-induced, spatially organizing cytoskeletal module enables rapid and persistent fibroblast migration. <i>Developmental Cell</i> , 2014 , 30, 701-16	10.2	18
10	Reconstituting ring-rafts in bud-mimicking topography of model membranes. <i>Nature Communications</i> , 2014 , 5, 4507	17.4	32
9	Multiscale patterned transplantable stem cell patches for bone tissue regeneration. <i>Biomaterials</i> , 2014 , 35, 9058-67	15.6	64
8	A microfluidic based in vitro model of synaptic competition. <i>Molecular and Cellular Neurosciences</i> , 2014 , 60, 43-52	4.8	27
7	Snail1 induced in breast cancer cells in 3D collagen I gel environment suppresses cortactin and impairs effective invadopodia formation. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2014 , 1843, 2037-54	4.9	15
6	A microfluidic platform for quantitative analysis of cancer angiogenesis and intravasation. <i>Biomicrofluidics</i> , 2014 , 8, 054102	3.2	85
5	Engineering of functional, perfusable 3D microvascular networks on a chip. <i>Lab on A Chip</i> , 2013 , 13, 1489-500	7.5	540
4	Wearable skin sensor using programmable interlocking of nanofibers 2013 ,		2

3	Measurement of Lipid Droplet Accumulation Kinetics in <i>Chlamydomonas reinhardtii</i> Using Seoul-Fluor. <i>Energies</i> , 2013 , 6, 5703-5716	3.1	5
2	3D Microphysiological System-Inspired Scalable Vascularized Tissue Constructs for Regenerative Medicine. <i>Advanced Functional Materials</i> ,2105475	15.6	1
1	3D High-Content Culturing and Drug Screening Platform to Study Vascularized Hepatocellular Carcinoma in Hypoxic Condition. <i>Advanced NanoBiomed Research</i> ,2100078	0	1