

# Roger D Kamm

## List of Publications by Year in Descending Order

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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.

227  
papers

20,815  
citations

78  
h-index

140  
g-index

237  
ext. papers

24,128  
ext. citations

7.8  
avg, IF

7.14  
L-index

#	Paper	IF	Citations
227	A computational modeling of invadopodia protrusion into an extracellular matrix fiber network.. <i>Scientific Reports</i> , <b>2022</b> , 12, 1231	4.9	0
226	Engineered human blood-brain barrier microfluidic model for vascular permeability analyses.. <i>Nature Protocols</i> , <b>2022</b> ,	18.8	14
225	Principles for the design of multicellular engineered living systems.. <i>APL Bioengineering</i> , <b>2022</b> , 6, 0109036.6	0	0
224	A Robust Method for Perfusable Microvascular Network Formation In Vitro.. <i>Small Methods</i> , <b>2022</b> , e2200143	14.3	4
223	Physiologic flow-conditioning limits vascular dysfunction in engineered human capillaries. <i>Biomaterials</i> , <b>2021</b> , 280, 121248	15.6	4
222	Tumor cell nuclei soften during transendothelial migration. <i>Journal of Biomechanics</i> , <b>2021</b> , 121, 110400	2.9	8
221	The CCL2-CCR2 astrocyte-cancer cell axis in tumor extravasation at the brain. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	15
220	In Pursuit of Designing Multicellular Engineered Living Systems: A Fluid Mechanical Perspective. <i>Annual Review of Fluid Mechanics</i> , <b>2021</b> , 53, 411-437	22	3
219	The effects of luminal and trans-endothelial fluid flows on the extravasation and tissue invasion of tumor cells in a 3D in vitro microvascular platform. <i>Biomaterials</i> , <b>2021</b> , 265, 120470	15.6	11
218	Rethinking organoid technology through bioengineering. <i>Nature Materials</i> , <b>2021</b> , 20, 145-155	27	52
217	A novel 3D vascular assay for evaluating angiogenesis across porous membranes. <i>Biomaterials</i> , <b>2021</b> , 268, 120592	15.6	7
216	Vascularized organoids on a chip: strategies for engineering organoids with functional vasculature. <i>Lab on A Chip</i> , <b>2021</b> , 21, 473-488	7.2	56
215	The cancer glycocalyx mediates intravascular adhesion and extravasation during metastatic dissemination. <i>Communications Biology</i> , <b>2021</b> , 4, 255	6.7	12
214	Biology and Models of the Blood-Brain Barrier. <i>Annual Review of Biomedical Engineering</i> , <b>2021</b> , 23, 359-384	27	27
213	The driving role of the Cdk5/Tln1/FAK axis in cancer cell extravasation dissected by human vascularized microfluidic models. <i>Biomaterials</i> , <b>2021</b> , 276, 120975	15.6	2
212	Bioengineered optogenetic model of human neuromuscular junction. <i>Biomaterials</i> , <b>2021</b> , 276, 121033	15.6	4
211	A robust vasculogenic microfluidic model using human immortalized endothelial cells and Thy1 positive fibroblasts. <i>Biomaterials</i> , <b>2021</b> , 276, 121032	15.6	3

210	Engineering approaches for studying immune-tumor cell interactions and immunotherapy. <i>IScience</i> , <b>2021</b> , 24, 101985	6.1	14
209	In Vitro, primarily microfluidic models for atherosclerosis <b>2021</b> , 299-313		0
208	Endothelial Regulation of Drug Transport in a 3D Vascularized Tumor Model. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2002444	15.6	37
207	Microfluidic platform for three-dimensional cell culture under spatiotemporal heterogeneity of oxygen tension. <i>APL Bioengineering</i> , <b>2020</b> , 4, 016106	6.6	15
206	On-chip 3D neuromuscular model for drug screening and precision medicine in neuromuscular disease. <i>Nature Protocols</i> , <b>2020</b> , 15, 421-449	18.8	50
205	The Use of Microfluidic Platforms to Probe the Mechanism of Cancer Cell Extravasation. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e1901410	10.1	30
204	Models for Monocytic Cells in the Tumor Microenvironment. <i>Advances in Experimental Medicine and Biology</i> , <b>2020</b> , 1224, 87-115	3.6	2
203	Cysteine cathepsins are altered by flow within an engineered microvascular niche. <i>APL Bioengineering</i> , <b>2020</b> , 4, 046102	6.6	2
202	Microphysiological models of neurological disorders for drug development. <i>Current Opinion in Biomedical Engineering</i> , <b>2020</b> , 13, 119-126	4.4	13
201	Tumor-Derived cGAMP Regulates Activation of the Vasculature. <i>Frontiers in Immunology</i> , <b>2020</b> , 11, 2090	8.4	10
200	Application of Transmural Flow Across In Vitro Microvasculature Enables Direct Sampling of Interstitial Therapeutic Molecule Distribution. <i>Small</i> , <b>2019</b> , 15, e1902393	11	22
199	Quantitative screening of the effects of hyper-osmotic stress on cancer cells cultured in 2- or 3-dimensional settings. <i>Scientific Reports</i> , <b>2019</b> , 9, 13782	4.9	14
198	Balance of mechanical forces drives endothelial gap formation and may facilitate cancer and immune-cell extravasation. <i>PLoS Computational Biology</i> , <b>2019</b> , 15, e1006395	5	23
197	Self-organization of hepatocyte morphogenesis depending on the size of collagen microbeads relative to hepatocytes. <i>Biofabrication</i> , <b>2019</b> , 11, 035007	10.5	5
196	Migration of vascular endothelial cells in monolayers under hypoxic exposure. <i>Integrative Biology (United Kingdom)</i> , <b>2019</b> , 11, 26-35	3.7	11
195	Phthalimide Derivative Shows Anti-angiogenic Activity in a 3D Microfluidic Model and No Teratogenicity in Zebrafish Embryos. <i>Frontiers in Pharmacology</i> , <b>2019</b> , 10, 349	5.6	12
194	Dynamic filopodial forces induce accumulation, damage, and plastic remodeling of 3D extracellular matrices. <i>PLoS Computational Biology</i> , <b>2019</b> , 15, e1006684	5	43
193	Quantification of human neuromuscular function through optogenetics. <i>Theranostics</i> , <b>2019</b> , 9, 1232-1246	62.1	30

192	Studying nucleic envelope and plasma membrane mechanics of eukaryotic cells using confocal reflectance interferometric microscopy. <i>Nature Communications</i> , <b>2019</b> , 10, 3652	17.4	9
191	Balance of interstitial flow magnitude and vascular endothelial growth factor concentration modulates three-dimensional microvascular network formation. <i>APL Bioengineering</i> , <b>2019</b> , 3, 036102	6.6	27
190	Mentoring and Education: A Lifetime of Experience and Learning. <i>Journal of Biomechanical Engineering</i> , <b>2019</b> ,	2.1	1
189	Platelet decoys inhibit thrombosis and prevent metastatic tumor formation in preclinical models. <i>Science Translational Medicine</i> , <b>2019</b> , 11,	17.5	32
188	Biohybrid valveless pump-bot powered by engineered skeletal muscle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 1543-1548	11.5	38
187	Construction of Continuous Capillary Networks Stabilized by Pericyte-like Perivascular Cells. <i>Tissue Engineering - Part A</i> , <b>2019</b> , 25, 499-510	3.9	13
186	Complex mechanics of the heterogeneous extracellular matrix in cancer. <i>Extreme Mechanics Letters</i> , <b>2018</b> , 21, 25-34	3.9	100
185	Vascularized microfluidic organ-chips for drug screening, disease models and tissue engineering. <i>Current Opinion in Biotechnology</i> , <b>2018</b> , 52, 116-123	11.4	60
184	Cell contraction induces long-ranged stress stiffening in the extracellular matrix. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 4075-4080	11.5	146
183	Computational modeling of three-dimensional ECM-rigidity sensing to guide directed cell migration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, E390-E399	11.5	59
182	Cooperative Effects of Vascular Angiogenesis and Lymphangiogenesis. <i>Regenerative Engineering and Translational Medicine</i> , <b>2018</b> , 4, 120-132	2.4	35
181	Engineered 3D vascular and neuronal networks in a microfluidic platform. <i>Scientific Reports</i> , <b>2018</b> , 8, 5168	4.9	87
180	In Vitro Modeling of Mechanics in Cancer Metastasis. <i>ACS Biomaterials Science and Engineering</i> , <b>2018</b> , 4, 294-301	5.5	45
179	In Vitro Microfluidic Models for Neurodegenerative Disorders. <i>Advanced Healthcare Materials</i> , <b>2018</b> , 7, 1700489	10.1	59
178	Interstitial flow promotes macrophage polarization toward an M2 phenotype. <i>Molecular Biology of the Cell</i> , <b>2018</b> , 29, 1927-1940	3.5	41
177	Studying TCR T cell anti-tumor activity in a microfluidic intrahepatic tumor model. <i>Methods in Cell Biology</i> , <b>2018</b> , 146, 199-214	1.8	6
176	Epithelial-Mesenchymal Transition Induces Podocalyxin to Promote Extravasation via Ezrin Signaling. <i>Cell Reports</i> , <b>2018</b> , 24, 962-972	10.6	28
175	3D self-organized microvascular model of the human blood-brain barrier with endothelial cells, pericytes and astrocytes. <i>Biomaterials</i> , <b>2018</b> , 180, 117-129	15.6	296

174	Hydrogel-incorporating unit in a well: 3D cell culture for high-throughput analysis. <i>Lab on A Chip</i> , <b>2018</b> , 18, 2604-2613	7.2	9
173	Influence of protein corona and caveolae-mediated endocytosis on nanoparticle uptake and transcytosis. <i>Nanoscale</i> , <b>2018</b> , 10, 12386-12397	7.7	42
172	Inflamed neutrophils sequestered at entrapped tumor cells via chemotactic confinement promote tumor cell extravasation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 7022-7027	11.5	85
171	Profiling of PD-1 Blockade Using Organotypic Tumor Spheroids. <i>Cancer Discovery</i> , <b>2018</b> , 8, 196-215	24.4	228
170	Crosstalk between developing vasculature and optogenetically engineered skeletal muscle improves muscle contraction and angiogenesis. <i>Biomaterials</i> , <b>2018</b> , 156, 65-76	15.6	38
169	A 3D microvascular network model to study the impact of hypoxia on the extravasation potential of breast cell lines. <i>Scientific Reports</i> , <b>2018</b> , 8, 17949	4.9	29
168	Microphysiological 3D model of amyotrophic lateral sclerosis (ALS) from human iPS-derived muscle cells and optogenetic motor neurons. <i>Science Advances</i> , <b>2018</b> , 4, eaat5847	14.3	172
167	Perspective: The promise of multi-cellular engineered living systems. <i>APL Bioengineering</i> , <b>2018</b> , 2, 040906.6	7.4	74
166	Engineered Models of Metastasis with Application to Study Cancer Biomechanics. <i>Advances in Experimental Medicine and Biology</i> , <b>2018</b> , 1092, 189-207	3.6	3
165	3D microfluidic ex vivo culture of organotypic tumor spheroids to model immune checkpoint blockade. <i>Lab on A Chip</i> , <b>2018</b> , 18, 3129-3143	7.2	104
164	models of molecular and nano-particle transport across the blood-brain barrier. <i>Biomicrofluidics</i> , <b>2018</b> , 12, 042213	3.2	45
163	Integrated Analysis of Intracellular Dynamics of MenaINV Cancer Cells in a 3D Matrix. <i>Biophysical Journal</i> , <b>2017</b> , 112, 1874-1884	2.9	14
162	Endothelial monolayer permeability under controlled oxygen tension. <i>Integrative Biology (United Kingdom)</i> , <b>2017</b> , 9, 529-538	3.7	26
161	A Facile Method to Probe the Vascular Permeability of Nanoparticles in Nanomedicine Applications. <i>Scientific Reports</i> , <b>2017</b> , 7, 707	4.9	34
160	Emerging Trends in Micro- and Nanoscale Technologies in Medicine: From Basic Discoveries to Translation. <i>ACS Nano</i> , <b>2017</b> , 11, 5195-5214	16.7	78
159	On-chip human microvasculature assay for visualization and quantification of tumor cell extravasation dynamics. <i>Nature Protocols</i> , <b>2017</b> , 12, 865-880	18.8	199
158	Advances in on-chip vascularization. <i>Regenerative Medicine</i> , <b>2017</b> , 12, 285-302	2.5	81
157	A 3D neurovascular microfluidic model consisting of neurons, astrocytes and cerebral endothelial cells as a blood-brain barrier. <i>Lab on A Chip</i> , <b>2017</b> , 17, 448-459	7.2	246

156	A 3D microfluidic model for preclinical evaluation of TCR-engineered T cells against solid tumors. <i>JCI Insight</i> , <b>2017</b> , 2,	9.9	113
155	Morphological Transformation and Force Generation of Active Cytoskeletal Networks. <i>PLoS Computational Biology</i> , <b>2017</b> , 13, e1005277	5	29
154	Cellular Nanomechanics. <i>Springer Handbooks</i> , <b>2017</b> , 1069-1100	1.3	2
153	Dynamic interplay between tumour, stroma and immune system can drive or prevent tumour progression. <i>Convergent Science Physical Oncology</i> , <b>2017</b> , 3,		68
152	Macrophage-Secreted TNF $\alpha$ and TGF $\beta$ Influence Migration Speed and Persistence of Cancer Cells in 3D Tissue Culture via Independent Pathways. <i>Cancer Research</i> , <b>2017</b> , 77, 279-290	10.1	66
151	Microfluidic device for the formation of optically excitable, three-dimensional, compartmentalized motor units. <i>Science Advances</i> , <b>2016</b> , 2, e1501429	14.3	138
150	Warburg metabolism in tumor-conditioned macrophages promotes metastasis in human pancreatic ductal adenocarcinoma. <i>Oncotmunology</i> , <b>2016</b> , 5, e1191731	7.2	122
149	Effects of 3D geometries on cellular gradient sensing and polarization. <i>Physical Biology</i> , <b>2016</b> , 13, 036008		18
148	Single-Cell Migration in Complex Microenvironments: Mechanics and Signaling Dynamics. <i>Journal of Biomechanical Engineering</i> , <b>2016</b> , 138, 021004	2.1	54
147	Interplay of active processes modulates tension and drives phase transition in self-renewing, motor-driven cytoskeletal networks. <i>Nature Communications</i> , <b>2016</b> , 7, 10323	17.4	61
146	Elucidation of the Roles of Tumor Integrin $\alpha$ in the Extravasation Stage of the Metastasis Cascade. <i>Cancer Research</i> , <b>2016</b> , 76, 2513-24	10.1	103
145	Microfluidics: A new tool for modeling cancer-immune interactions. <i>Trends in Cancer</i> , <b>2016</b> , 2, 6-19	12.5	122
144	Optogenetic skeletal muscle-powered adaptive biological machines. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 3497-502	11.5	150
143	Impact of the physical microenvironment on tumor progression and metastasis. <i>Current Opinion in Biotechnology</i> , <b>2016</b> , 40, 41-48	11.4	295
142	Breast Cancer Cell Invasion into a Three Dimensional Tumor-Stroma Microenvironment. <i>Scientific Reports</i> , <b>2016</b> , 6, 34094	4.9	81
141	Simultaneous or Sequential Orthogonal Gradient Formation in a 3D Cell Culture Microfluidic Platform. <i>Small</i> , <b>2016</b> , 12, 612-22	11	69
140	Engineering a 3D microfluidic culture platform for tumor-treating field application. <i>Scientific Reports</i> , <b>2016</b> , 6, 26584	4.9	57
139	Microfluidic models for adoptive cell-mediated cancer immunotherapies. <i>Drug Discovery Today</i> , <b>2016</b> , 21, 1472-1478	8.8	48

138	Neutrophils Suppress Intraluminal NK Cell-Mediated Tumor Cell Clearance and Enhance Extravasation of Disseminated Carcinoma Cells. <i>Cancer Discovery</i> , <b>2016</b> , 6, 630-49	24.4	257
137	A Chemomechanical Model for Nuclear Morphology and Stresses during Cell Transendothelial Migration. <i>Biophysical Journal</i> , <b>2016</b> , 111, 1541-1552	2.9	82
136	Multiscale impact of nucleotides and cations on the conformational equilibrium, elasticity and rheology of actin filaments and crosslinked networks. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2015</b> , 14, 1143-55	3.8	26
135	Noncontact three-dimensional mapping of intracellular hydromechanical properties by Brillouin microscopy. <i>Nature Methods</i> , <b>2015</b> , 12, 1132-4	21.6	223
134	A quantitative microfluidic angiogenesis screen for studying anti-angiogenic therapeutic drugs. <i>Lab on A Chip</i> , <b>2015</b> , 15, 301-10	7.2	94
133	Human 3D vascularized organotypic microfluidic assays to study breast cancer cell extravasation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 214-9	11.5	462
132	Human vascular tissue models formed from human induced pluripotent stem cell derived endothelial cells. <i>Stem Cell Reviews and Reports</i> , <b>2015</b> , 11, 511-25	6.4	82
131	Multiscale mechanobiology: computational models for integrating molecules to multicellular systems. <i>Integrative Biology (United Kingdom)</i> , <b>2015</b> , 7, 1093-108	3.7	29
130	Cell Invasion Dynamics into a Three Dimensional Extracellular Matrix Fibre Network. <i>PLoS Computational Biology</i> , <b>2015</b> , 11, e1004535	5	48
129	Contact-dependent carcinoma aggregate dispersion by M2a macrophages via ICAM-1 and $\alpha$ integrin interactions. <i>Oncotarget</i> , <b>2015</b> , 6, 25295-307	3.3	80
128	Identification of drugs as single agents or in combination to prevent carcinoma dissemination in a microfluidic 3D environment. <i>Oncotarget</i> , <b>2015</b> , 6, 36603-14	3.3	50
127	Constructive remodeling of a synthetic endothelial extracellular matrix. <i>Scientific Reports</i> , <b>2015</b> , 5, 18290.9	4.9	23
126	Microvessel Growth and Remodeling within a Three-dimensional Microfluidic Environment. <i>Cellular and Molecular Bioengineering</i> , <b>2014</b> , 7, 15-25	3.9	42
125	Image-based modeling for better understanding and assessment of atherosclerotic plaque progression and vulnerability: data, modeling, validation, uncertainty and predictions. <i>Journal of Biomechanics</i> , <b>2014</b> , 47, 834-46	2.9	55
124	Control of perfusable microvascular network morphology using a multiculture microfluidic system. <i>Tissue Engineering - Part C: Methods</i> , <b>2014</b> , 20, 543-52	2.9	131
123	Oxygen levels in thermoplastic microfluidic devices during cell culture. <i>Lab on A Chip</i> , <b>2014</b> , 14, 459-62	7.2	61
122	Validating antimetastatic effects of natural products in an engineered microfluidic platform mimicking tumor microenvironment. <i>Molecular Pharmaceutics</i> , <b>2014</b> , 11, 2022-9	5.6	33
121	Microfabrication and microfluidics for muscle tissue models. <i>Progress in Biophysics and Molecular Biology</i> , <b>2014</b> , 115, 279-93	4.7	34

120	Generation of 3D functional microvascular networks with human mesenchymal stem cells in microfluidic systems. <i>Integrative Biology (United Kingdom)</i> , <b>2014</b> , 6, 555-63	3.7	152
119	USNCTAM perspectives on mechanics in medicine. <i>Journal of the Royal Society Interface</i> , <b>2014</b> , 11, 20140301	4.1	28
118	Mechanotransduction of fluid stresses governs 3D cell migration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 2447-52	11.5	173
117	Probabilistic Voxel-Fe model for single cell motility in 3D <b>2014</b> , 1, 2		26
116	Impact of dimensionality and network disruption on microrheology of cancer cells in 3D environments. <i>PLoS Computational Biology</i> , <b>2014</b> , 10, e1003959	5	28
115	Creating living cellular machines. <i>Annals of Biomedical Engineering</i> , <b>2014</b> , 42, 445-59	4.7	75
114	Quantifying intracellular protein binding thermodynamics during mechanotransduction based on FRET spectroscopy. <i>Methods</i> , <b>2014</b> , 66, 208-21	4.6	2
113	A microfluidic 3D in vitro model for specificity of breast cancer metastasis to bone. <i>Biomaterials</i> , <b>2014</b> , 35, 2454-61	15.6	354
112	Rapid prototyping of concave microwells for the formation of 3D multicellular cancer aggregates for drug screening. <i>Advanced Healthcare Materials</i> , <b>2014</b> , 3, 609-16	10.1	58
111	A three-dimensional microfluidic tumor cell migration assay to screen the effect of anti-migratory drugs and interstitial flow. <i>Microfluidics and Nanofluidics</i> , <b>2013</b> , 14, 969-981	2.8	23
110	Extracellular matrix heterogeneity regulates three-dimensional morphologies of breast adenocarcinoma cell invasion. <i>Advanced Healthcare Materials</i> , <b>2013</b> , 2, 790-4	10.1	28
109	Microfluidic Platforms for Evaluating Angiogenesis and Vasculogenesis <b>2013</b> , 385-403		
108	Mechanisms of tumor cell extravasation in an in vitro microvascular network platform. <i>Integrative Biology (United Kingdom)</i> , <b>2013</b> , 5, 1262-71	3.7	194
107	Screening therapeutic EMT blocking agents in a three-dimensional microenvironment. <i>Integrative Biology (United Kingdom)</i> , <b>2013</b> , 5, 381-9	3.7	123
106	Complementary effects of ciclopirox olamine, a prolyl hydroxylase inhibitor and sphingosine 1-phosphate on fibroblasts and endothelial cells in driving capillary sprouting. <i>Integrative Biology (United Kingdom)</i> , <b>2013</b> , 5, 1474-84	3.7	17
105	Microfluidic Devices for Angiogenesis. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , <b>2013</b> , 93-120	0.5	2
104	Microfluidic platforms for mechanobiology. <i>Lab on A Chip</i> , <b>2013</b> , 13, 2252-67	7.2	180
103	Tumor cell migration in complex microenvironments. <i>Cellular and Molecular Life Sciences</i> , <b>2013</b> , 70, 1335-53	5.3	143



102	3D matrix microenvironment for targeted differentiation of embryonic stem cells into neural and glial lineages. <i>Biomaterials</i> , <b>2013</b> , 34, 5995-6007	15.6	90
101	Mechanical characterization of self-assembling peptide hydrogels by microindentation. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2013</b> , 101, 981-90	3.5	14
100	The Stabilization Effect of Mesenchymal Stem Cells on the Formation of Microvascular Networks in a Microfluidic Device. <i>Journal of Biomechanical Science and Engineering</i> , <b>2013</b> , 8, 114-128	0.8	10
99	In vitro model of tumor cell extravasation. <i>PLoS ONE</i> , <b>2013</b> , 8, e56910	3.7	173
98	Microfluidic models of vascular functions. <i>Annual Review of Biomedical Engineering</i> , <b>2012</b> , 14, 205-30	12	184
97	A novel microfluidic platform for high-resolution imaging of a three-dimensional cell culture under a controlled hypoxic environment. <i>Lab on A Chip</i> , <b>2012</b> , 12, 4855-63	7.2	103
96	Mechanism of a flow-gated angiogenesis switch: early signaling events at cell-matrix and cell-cell junctions. <i>Integrative Biology (United Kingdom)</i> , <b>2012</b> , 4, 863-74	3.7	84
95	Nascent vessel elongation rate is inversely related to diameter in in vitro angiogenesis. <i>Integrative Biology (United Kingdom)</i> , <b>2012</b> , 4, 1081-9	3.7	15
94	Three-dimensional extracellular matrix-mediated neural stem cell differentiation in a microfluidic device. <i>Lab on A Chip</i> , <b>2012</b> , 12, 2305-8	7.2	52
93	Formation and optogenetic control of engineered 3D skeletal muscle bioactuators. <i>Lab on A Chip</i> , <b>2012</b> , 12, 4976-85	7.2	198
92	Microfluidic assay for simultaneous culture of multiple cell types on surfaces or within hydrogels. <i>Nature Protocols</i> , <b>2012</b> , 7, 1247-59	18.8	383
91	A versatile assay for monitoring in vivo-like transendothelial migration of neutrophils. <i>Lab on A Chip</i> , <b>2012</b> , 12, 3861-5	7.2	77
90	In vitro angiogenesis assay for the study of cell-encapsulation therapy. <i>Lab on A Chip</i> , <b>2012</b> , 12, 2942-50	7.2	20
89	Integrating focal adhesion dynamics, cytoskeleton remodeling, and actin motor activity for predicting cell migration on 3D curved surfaces of the extracellular matrix. <i>Integrative Biology (United Kingdom)</i> , <b>2012</b> , 4, 1386-97	3.7	38
88	Ensemble analysis of angiogenic growth in three-dimensional microfluidic cell cultures. <i>PLoS ONE</i> , <b>2012</b> , 7, e37333	3.7	78
87	Dynamic mechanisms of cell rigidity sensing: insights from a computational model of actomyosin networks. <i>PLoS ONE</i> , <b>2012</b> , 7, e49174	3.7	51
86	Engineering of in vitro 3D capillary beds by self-directed angiogenic sprouting. <i>PLoS ONE</i> , <b>2012</b> , 7, e50582	3.7	67
85	Three-dimensional microfluidic model for tumor cell intravasation and endothelial barrier function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 13515-20	11.5	646

84	Dynamic role of cross-linking proteins in actin rheology. <i>Biophysical Journal</i> , <b>2011</b> , 101, 1597-603	2.9	28
83	Spectrally resolved multidepth fluorescence imaging. <i>Journal of Biomedical Optics</i> , <b>2011</b> , 16, 096015	3.5	15
82	A microfluidic system with optical laser tweezers to study mechanotransduction and focal adhesion recruitment. <i>Lab on A Chip</i> , <b>2011</b> , 11, 684-94	7.2	27
81	In vitro 3D collective sprouting angiogenesis under orchestrated ANG-1 and VEGF gradients. <i>Lab on A Chip</i> , <b>2011</b> , 11, 2175-81	7.2	121
80	Hot embossing for fabrication of a microfluidic 3D cell culture platform. <i>Biomedical Microdevices</i> , <b>2011</b> , 13, 325-33	3.7	62
79	Differentiation of embryonic stem cells into cardiomyocytes in a compliant microfluidic system. <i>Annals of Biomedical Engineering</i> , <b>2011</b> , 39, 1840-7	4.7	66
78	Interstitial flow influences direction of tumor cell migration through competing mechanisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 11115-20	11.5	329
77	A high-throughput microfluidic assay to study neurite response to growth factor gradients. <i>Lab on A Chip</i> , <b>2011</b> , 11, 497-507	7.2	125
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