

# R 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.

253  
papers

18,839  
citations

74  
h-index

131  
g-index

287  
ext. papers

22,425  
ext. citations

7.7  
avg, IF

7.15  
L-index

#	Paper	IF	Citations
253	A computational modeling of invadopodia protrusion into an extracellular matrix fiber network.. <i>Scientific Reports</i> , <b>2022</b> , 12, 1231	4.9	0
252	Engineered human blood-brain barrier microfluidic model for vascular permeability analyses.. <i>Nature Protocols</i> , <b>2022</b> ,	18.8	14
251	A computational model of cardiomyocyte metabolism predicts unique reperfusion protocols capable of reducing cell damage during ischemia/reperfusion.. <i>Journal of Biological Chemistry</i> , <b>2022</b> , 101693	5.4	0
250	Principles for the design of multicellular engineered living systems.. <i>APL Bioengineering</i> , <b>2022</b> , 6, 0109036.6	3.6	0
249	Progress in multicellular human cardiac organoids for clinical applications.. <i>Cell Stem Cell</i> , <b>2022</b> , 29, 503-514	5.84	4
248	A Robust Method for Perfusable Microvascular Network Formation In Vitro.. <i>Small Methods</i> , <b>2022</b> , e2200143	1.43	4
247	Physiologic flow-conditioning limits vascular dysfunction in engineered human capillaries. <i>Biomaterials</i> , <b>2021</b> , 280, 121248	15.6	4
246	Microheart: A microfluidic pump for functional vascular culture in microphysiological systems. <i>Journal of Biomechanics</i> , <b>2021</b> , 119, 110330	2.9	5
245	Tumor cell nuclei soften during transendothelial migration. <i>Journal of Biomechanics</i> , <b>2021</b> , 121, 110400	2.9	8
244	The CCL2-CCR2 astrocyte-cancer cell axis in tumor extravasation at the brain. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	15
243	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
242	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
241	Rethinking organoid technology through bioengineering. <i>Nature Materials</i> , <b>2021</b> , 20, 145-155	27	52
240	A novel 3D vascular assay for evaluating angiogenesis across porous membranes. <i>Biomaterials</i> , <b>2021</b> , 268, 120592	15.6	7
239	Angiogenic responses in a 3D micro-engineered environment of primary endothelial cells and pericytes. <i>Angiogenesis</i> , <b>2021</b> , 24, 111-127	10.6	15
238	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
237	Lectin Staining of Microvascular Glycocalyx in Microfluidic Cancer Cell Extravasation Assays. <i>Life</i> , <b>2021</b> , 11,	3	5

236	The cancer glycocalyx mediates intravascular adhesion and extravasation during metastatic dissemination. <i>Communications Biology</i> , <b>2021</b> , 4, 255	6.7	12
235	Biology and Models of the Blood-Brain Barrier. <i>Annual Review of Biomedical Engineering</i> , <b>2021</b> , 23, 359-384		27
234	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
233	Bioengineered optogenetic model of human neuromuscular junction. <i>Biomaterials</i> , <b>2021</b> , 276, 121033	15.6	4
232	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
231	Engineering approaches for studying immune-tumor cell interactions and immunotherapy. <i>iScience</i> , <b>2021</b> , 24, 101985	6.1	14
230	3D Self-Organized Human Blood-Brain Barrier in a Microfluidic Chip. <i>Methods in Molecular Biology</i> , <b>2021</b> , 2258, 205-219	1.4	5
229	Endothelial Regulation of Drug Transport in a 3D Vascularized Tumor Model. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2002444	15.6	37
228	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
227	Modeling Nanocarrier Transport across a 3D In Vitro Human Blood-Brain-Barrier Microvasculature. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e1901486	10.1	32
226	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
225	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
224	The bioprinting roadmap. <i>Biofabrication</i> , <b>2020</b> , 12, 022002	10.5	137
223	Blood-BrainBarrier Microvasculatures: Modeling Nanocarrier Transport across a 3D In Vitro Human Blood-BrainBarrier Microvasculature (Adv. Healthcare Mater. 7/2020). <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, 2070021	10.1	0
222	Integrated in silico and 3D in vitro model of macrophage migration in response to physical and chemical factors in the tumor microenvironment. <i>Integrative Biology (United Kingdom)</i> , <b>2020</b> , 12, 90-108	3.7	21
221	DDEL-04. ENGINEERED NANOCARRIERS TO ENHANCE DRUG DELIVERY ACROSS THE BLOOD-BRAIN BARRIER. <i>Neuro-Oncology</i> , <b>2020</b> , 22, iii284-iii284	1	1
220	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
219	Cysteine cathepsins are altered by flow within an engineered microvascular niche. <i>APL Bioengineering</i> , <b>2020</b> , 4, 046102	6.6	2

218	Microphysiological models of neurological disorders for drug development. <i>Current Opinion in Biomedical Engineering</i> , <b>2020</b> , 13, 119-126	4.4	13
217	Pulmonary-arterial-hypertension (PAH)-on-a-chip: fabrication, validation and application. <i>Lab on A Chip</i> , <b>2020</b> , 20, 3334-3345	7.2	5
216	Tumor-Derived cGAMP Regulates Activation of the Vasculature. <i>Frontiers in Immunology</i> , <b>2020</b> , 11, 20908.4	10	
215	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
214	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
213	Microfluidic assessment of metastatic potential. <i>Nature Biomedical Engineering</i> , <b>2019</b> , 3, 423-424	19	2
212	An on-chip model of protein paracellular and transcellular permeability in the microcirculation. <i>Biomaterials</i> , <b>2019</b> , 212, 115-125	15.6	39
211	Remodeling of the Tumor Microenvironment by a Chemokine/Anti-PD-L1 Nanobody Fusion Protein. <i>Molecular Pharmaceutics</i> , <b>2019</b> , 16, 2838-2844	5.6	12
210	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
209	THER-15. FUNCTIONALIZED NANOPARTICLE TRAFFICKING ASSESSED IN A NOVEL MICROFLUIDIC MODEL OF THE BLOOD-BRAIN BARRIER WITH HIGH GRADE GLIOMA SPHEROIDS. <i>Neuro-Oncology</i> , <b>2019</b> , 21, ii117-ii117	1	1
208	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
207	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
206	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
205	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
204	Quantification of human neuromuscular function through optogenetics. <i>Theranostics</i> , <b>2019</b> , 9, 1232-1246	2.1	30
203	Blood-Brain Barrier Dysfunction in a 3D In Vitro Model of Alzheimer's Disease. <i>Advanced Science</i> , <b>2019</b> , 6, 1900962	13.6	94
202	Studying nucleic acid 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
201	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

200	MicroRNA delivery through nanoparticles. <i>Journal of Controlled Release</i> , <b>2019</b> , 313, 80-95	11.7	111
199	Microcirculation-on-Chip: Application of Transmural Flow Across In Vitro Microvasculature Enables Direct Sampling of Interstitial Therapeutic Molecule Distribution (Small 46/2019). <i>Small</i> , <b>2019</b> , 15, 1970247	11.1	1
198	Pericytes Contribute to Dysfunction in a Human 3D Model of Placental Microvasculature through VEGF-Ang-Tie2 Signaling. <i>Advanced Science</i> , <b>2019</b> , 6, 1900878	13.6	33
197	Mentoring and Education: A Lifetime of Experience and Learning. <i>Journal of Biomechanical Engineering</i> , <b>2019</b> ,	2.1	1
196	Platelet decoys inhibit thrombosis and prevent metastatic tumor formation in preclinical models. <i>Science Translational Medicine</i> , <b>2019</b> , 11,	17.5	32
195	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
194	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
193	The effects of monocytes on tumor cell extravasation in a 3D vascularized microfluidic model. <i>Biomaterials</i> , <b>2019</b> , 198, 180-193	15.6	69
192	Complex mechanics of the heterogeneous extracellular matrix in cancer. <i>Extreme Mechanics Letters</i> , <b>2018</b> , 21, 25-34	3.9	100
191	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
190	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
189	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
188	Cooperative Effects of Vascular Angiogenesis and Lymphangiogenesis. <i>Regenerative Engineering and Translational Medicine</i> , <b>2018</b> , 4, 120-132	2.4	35
187	Engineered 3D vascular and neuronal networks in a microfluidic platform. <i>Scientific Reports</i> , <b>2018</b> , 8, 5168	4.9	87
186	In Vitro Modeling of Mechanics in Cancer Metastasis. <i>ACS Biomaterials Science and Engineering</i> , <b>2018</b> , 4, 294-301	5.5	45
185	ADAM8 expression in breast cancer derived brain metastases: Functional implications on MMP-9 expression and transendothelial migration in breast cancer cells. <i>International Journal of Cancer</i> , <b>2018</b> , 142, 779-791	7.5	27
184	In Vitro Microfluidic Models for Neurodegenerative Disorders. <i>Advanced Healthcare Materials</i> , <b>2018</b> , 7, 1700489	10.1	59
183	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

182	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
181	Epithelial-Mesenchymal Transition Induces Podocalyxin to Promote Extravasation via Ezrin Signaling. <i>Cell Reports</i> , <b>2018</b> , 24, 962-972	10.6	28
180	Characterizing the Role of Monocytes in T Cell Cancer Immunotherapy Using a 3D Microfluidic Model. <i>Frontiers in Immunology</i> , <b>2018</b> , 9, 416	8.4	55
179	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
178	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
177	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
176	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
175	Profiling of PD-1 Blockade Using Organotypic Tumor Spheroids. <i>Cancer Discovery</i> , <b>2018</b> , 8, 196-215	24.4	228
174	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
173	Cell-Extracellular Matrix Mechanobiology: Forceful Tools and Emerging Needs for Basic and Translational Research. <i>Nano Letters</i> , <b>2018</b> , 18, 1-8	11.5	67
172	A combined microfluidic-transcriptomic approach to characterize the extravasation potential of cancer cells. <i>Oncotarget</i> , <b>2018</b> , 9, 36110-36125	3.3	17
171	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
170	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
169	Perspective: The promise of multi-cellular engineered living systems. <i>APL Bioengineering</i> , <b>2018</b> , 2, 040906	6.6	74
168	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
167	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
166	Evidence from ITIR-FCS Diffusion Studies that the Amyloid-Beta (A $\beta$ ) Peptide Does Not Perturb Plasma Membrane Fluidity in Neuronal Cells. <i>Journal of Molecular Biology</i> , <b>2018</b> , 430, 3439-3453	6.5	3
165	models of molecular and nano-particle transport across the blood-brain barrier. <i>Biomicrofluidics</i> , <b>2018</b> , 12, 042213	3.2	45

164	A process engineering approach to increase organoid yield. <i>Development (Cambridge)</i> , <b>2017</b> , 144, 1128-1636	3.6	37
163	A versatile microfluidic device for high throughput production of microparticles and cell microencapsulation. <i>Lab on A Chip</i> , <b>2017</b> , 17, 2067-2075	7.2	29
162	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
161	Endothelial monolayer permeability under controlled oxygen tension. <i>Integrative Biology (United Kingdom)</i> , <b>2017</b> , 9, 529-538	3.7	26
160	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
159	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
158	A microfluidics assay to study invasion of human placental trophoblast cells. <i>Journal of the Royal Society Interface</i> , <b>2017</b> , 14,	4.1	43
157	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
156	Advances in on-chip vascularization. <i>Regenerative Medicine</i> , <b>2017</b> , 12, 285-302	2.5	81
155	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
154	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
153	Morphological Transformation and Force Generation of Active Cytoskeletal Networks. <i>PLoS Computational Biology</i> , <b>2017</b> , 13, e1005277	5	29
152	Cellular Nanomechanics. <i>Springer Handbooks</i> , <b>2017</b> , 1069-1100	1.3	2
151	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
150	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
149	Abstract B22: Role of monocytes in 3D microfluidic models of cancer cell extravasation <b>2017</b> ,		2
148	Human cardiac fibroblasts adaptive responses to controlled combined mechanical strain and oxygen changes in vitro. <i>ELife</i> , <b>2017</b> , 6,	8.9	32
147	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

146	Warburg metabolism in tumor-conditioned macrophages promotes metastasis in human pancreatic ductal adenocarcinoma. <i>OncImmunology</i> , <b>2016</b> , 5, e1191731	7.2	122
145	Effects of 3D geometries on cellular gradient sensing and polarization. <i>Physical Biology</i> , <b>2016</b> , 13, 036008		18
144	Microfluidics: Simultaneous or Sequential Orthogonal Gradient Formation in a 3D Cell Culture Microfluidic Platform (Small 5/2016). <i>Small</i> , <b>2016</b> , 12, 688-688	11	3
143	Single-Cell Migration in Complex Microenvironments: Mechanics and Signaling Dynamics. <i>Journal of Biomechanical Engineering</i> , <b>2016</b> , 138, 021004	2.1	54
142	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
141	Elucidation of the Roles of Tumor Integrin $\beta$ in the Extravasation Stage of the Metastasis Cascade. <i>Cancer Research</i> , <b>2016</b> , 76, 2513-24	10.1	103
140	Microfluidics: A new tool for modeling cancer-immune interactions. <i>Trends in Cancer</i> , <b>2016</b> , 2, 6-19	12.5	122
139	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
138	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
137	Abstract 1578: Exploring the role of tumor-conditioned macrophage metabolism on extravasation of pancreatic ductal adenocarcinoma cells <b>2016</b> ,		2
136	Breast Cancer Cell Invasion into a Three Dimensional Tumor-Stroma Microenvironment. <i>Scientific Reports</i> , <b>2016</b> , 6, 34094	4.9	81
135	Abstract A126: The role of macrophages and monocytes during cancer cell extravasation in 3D vascularized microfluidic models <b>2016</b> ,		2
134	Simultaneous or Sequential Orthogonal Gradient Formation in a 3D Cell Culture Microfluidic Platform. <i>Small</i> , <b>2016</b> , 12, 612-22	11	69
133	On-chip assessment of human primary cardiac fibroblasts proliferative responses to uniaxial cyclic mechanical strain. <i>Biotechnology and Bioengineering</i> , <b>2016</b> , 113, 859-69	4.9	38
132	Engineering a 3D microfluidic culture platform for tumor-treating field application. <i>Scientific Reports</i> , <b>2016</b> , 6, 26584	4.9	57
131	Microfluidic models for adoptive cell-mediated cancer immunotherapies. <i>Drug Discovery Today</i> , <b>2016</b> , 21, 1472-1478	8.8	48
130	PO-12 - The key role of talin-1 in cancer cell extravasation dissected through human vascularized 3D microfluidic model. <i>Thrombosis Research</i> , <b>2016</b> , 140 Suppl 1, S180-1	8.2	5
129	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



128	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
127	Cell adhesion during bullet motion in capillaries. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2016</b> , 311, H395-403	5.2	25
126	Activatable and Cell-Penetrable Multiplex FRET Nanosensor for Profiling MT1-MMP Activity in Single Cancer Cells. <i>Nano Letters</i> , <b>2015</b> , 15, 5025-32	11.5	42
125	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
124	Noncontact three-dimensional mapping of intracellular hydromechanical properties by Brillouin microscopy. <i>Nature Methods</i> , <b>2015</b> , 12, 1132-4	21.6	223
123	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
122	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
121	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
120	Controlled electromechanical cell stimulation on-a-chip. <i>Scientific Reports</i> , <b>2015</b> , 5, 11800	4.9	75
119	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
118	Modeling the Blood-Brain Barrier in a 3D triple co-culture microfluidic system. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 338-41	0.9	22
117	Using microfluidics to investigate tumor cell extravasation and T-cell immunotherapies. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 1853-6	0.9	10
116	Cell Invasion Dynamics into a Three Dimensional Extracellular Matrix Fibre Network. <i>PLoS Computational Biology</i> , <b>2015</b> , 11, e1004535	5	48
115	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
114	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
113	Constructive remodeling of a synthetic endothelial extracellular matrix. <i>Scientific Reports</i> , <b>2015</b> , 5, 18290	4.9	23
112	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
111	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

110	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
109	Oxygen levels in thermoplastic microfluidic devices during cell culture. <i>Lab on A Chip</i> , <b>2014</b> , 14, 459-62	7.2	61
108	A time-dependent phenomenological model for cell mechano-sensing. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2014</b> , 13, 451-62	3.8	10
107	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
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6	Non-Elastic Remodeling of the 3D Extracellular Matrix by Cell-Generated Forces		2
5	Glycocalyx-Mediated Vascular Dissemination of Circulating Tumor Cells		7
4	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		1
3	Balance of Mechanical Forces Drives Endothelial Gap Formation and May Facilitate Cancer and Immune-Cell Extravasation		1

2 Neurovascular models for organ-on-a-chips. *In Vitro Models*,1

1 A predictive microfluidic model of human glioblastoma to assess trafficking of blood-brain barrier penetrant nanoparticles

1