R D Kamm

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Physiologic flow-conditioning limits vascular dysfunction in engineered human capillaries. Biomaterials, 2022, 280, 121248.	5.7	23
2	Microphysiological Neurovascular Barriers to Model the Inner Retinal Microvasculature. Journal of Personalized Medicine, 2022, 12, 148.	1.1	8
3	A computational modeling of invadopodia protrusion into an extracellular matrix fiber network. Scientific Reports, 2022, 12, 1231.	1.6	7
4	Engineered human bloodâ€“brain barrier microfluidic model for vascular permeability analyses. Nature Protocols, 2022, 17, 95-128.	5.5	79
5	A computational model of cardiomyocyte metabolism predicts unique reperfusion protocols capable of reducing cell damage during ischemia/reperfusion. Journal of Biological Chemistry, 2022, 298, 101693.	1.6	1
6	Principles for the design of multicellular engineered living systems. APL Bioengineering, 2022, 6, 010903.	3.3	17
7	Progress in multicellular human cardiac organoids for clinical applications. Cell Stem Cell, 2022, 29, 503-514.	5.2	39
8	A Robust Method for Perfusable Microvascular Network Formation In Vitro. Small Methods, 2022, 6, e2200143.	4.6	23
9	A predictive microfluidic model of human glioblastoma to assess trafficking of bloodâ€“brain barrier-penetrant nanoparticles. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	46
10	Triâ€culture of spatially organizing human skeletal muscle cells, endothelial cells, and fibroblasts enhances contractile force and vascular perfusion of skeletal muscle tissues. FASEB Journal, 2022, 36, .	0.2	6
11	Integrating functional vasculature into organoid culture: A biomechanical perspective. APL Bioengineering, 2022, 6, .	3.3	6
12	In Pursuit of Designing Multicellular Engineered Living Systems: A Fluid Mechanical Perspective. Annual Review of Fluid Mechanics, 2021, 53, 411-437.	10.8	6
13	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. Biomaterials, 2021, 265, 120470.	5.7	39
14	Rethinking organoid technology through bioengineering. Nature Materials, 2021, 20, 145-155.	13.3	150
15	A novel 3D vascular assay for evaluating angiogenesis across porous membranes. Biomaterials, 2021, 268, 120592.	5.7	14
16	Angiogenic responses in a 3D micro-engineered environment of primary endothelial cells and pericytes. Angiogenesis, 2021, 24, 111-127.	3.7	27
17	Vascularized organoids on a chip: strategies for engineering organoids with functional vasculature. Lab on A Chip, 2021, 21, 473-488.	3.1	151
18	Lectin Staining of Microvascular Glycocalyx in Microfluidic Cancer Cell Extravasation Assays. Life, 2021, 11, 179.	1.1	16

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19	The cancer glycocalyx mediates intravascular adhesion and extravasation during metastatic dissemination. Communications Biology, 2021, 4, 255.	2.0	34
20	Toward improved models of human cancer: Two perspectives. APL Bioengineering, 2021, 5, 010402.	3.3	4
21	Microheart: A microfluidic pump for functional vascular culture in microphysiological systems. Journal of Biomechanics, 2021, 119, 110330.	0.9	21
22	Tumor cell nuclei soften during transendothelial migration. Journal of Biomechanics, 2021, 121, 110400.	0.9	42
23	Perfusable host microfluidic endothelial networks for quantitative assessment of the effects of interstitial flows, macrophage polarization and monoclonalâ€based immunotherapy on immune cell infiltration into a tumor spheroid. FASEB Journal, 2021, 35, .	0.2	0
24	The CCL2-CCR2 astrocyte-cancer cell axis in tumor extravasation at the brain. Science Advances, 2021, 7, .	4.7	40
25	Biology and Models of the Bloodâ€"Brain Barrier. Annual Review of Biomedical Engineering, 2021, 23, 359-384.	5.7	68
26	The driving role of the Cdk5/Tln1/FAKS732 axis in cancer cell extravasation dissected by human vascularized microfluidic models. Biomaterials, 2021, 276, 120975.	5.7	16
27	Bioengineered optogenetic model of human neuromuscular junction. Biomaterials, 2021, 276, 121033.	5.7	20
28	A robust vasculogenic microfluidic model using human immortalized endothelial cells and Thy1 positive fibroblasts. Biomaterials, 2021, 276, 121032.	5.7	27
29	Engineering approaches for studying immune-tumor cell interactions and immunotherapy. IScience, 2021, 24, 101985.	1.9	52
30	3D Self-Organized Human Bloodâ€"Brain Barrier in a Microfluidic Chip. Methods in Molecular Biology, 2021, 2258, 205-219.	0.4	9
31	Microphysiological models of neurological disorders for drug development. Current Opinion in Biomedical Engineering, 2020, 13, 119-126.	1.8	18
32	Pulmonary-arterial-hypertension (PAH)-on-a-chip: fabrication, validation and application. Lab on A Chip, 2020, 20, 3334-3345.	3.1	23
33	Biohybrid systems: Borrowing from nature to make better machines. APL Bioengineering, 2020, 4, 020401.	3.3	6
34	Tumor-Derived cGAMP Regulates Activation of the Vasculature. Frontiers in Immunology, 2020, 11, 2090.	2.2	37
35	Endothelial Regulation of Drug Transport in a 3D Vascularized Tumor Model. Advanced Functional Materials, 2020, 30, 2002444.	7.8	78
36	Microfluidic platform for three-dimensional cell culture under spatiotemporal heterogeneity of oxygen tension. APL Bioengineering, 2020, 4, 016106.	3.3	34

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37	In vitro microfluidic modelling of the human blood-brain-barrier microvasculature and testing of nanocarrier transport. Biomedical Science and Engineering, 2020, 3, .	0.0	0
38	Modeling Nanocarrier Transport across a 3D In Vitro Human Bloodâ€Brainâ€“Barrier Microvasculature. Advanced Healthcare Materials, 2020, 9, e1901486.	3.9	57
39	On-chip 3D neuromuscular model for drug screening and precision medicine in neuromuscular disease. Nature Protocols, 2020, 15, 421-449.	5.5	93
40	The Use of Microfluidic Platforms to Probe the Mechanism of Cancer Cell Extravasation. Advanced Healthcare Materials, 2020, 9, e1901410.	3.9	45
41	The bioprinting roadmap. Biofabrication, 2020, 12, 022002.	3.7	291
42	Bloodâ€Brainâ€“Barrier Microvasculatures: Modeling Nanocarrier Transport across a 3D In Vitro Human Bloodâ€Brainâ€“Barrier Microvasculature (Adv. Healthcare Mater. 7/2020). Advanced Healthcare Materials, 2020, 9, 2070021.	3.9	2
43	Integrated in silico and 3D in vitro model of macrophage migration in response to physical and chemical factors in the tumor microenvironment. Integrative Biology (United Kingdom), 2020, 12, 90-108.	0.6	41
44	Cysteine cathepsins are altered by flow within an engineered <i>in vitro</i> microvascular niche. APL Bioengineering, 2020, 4, 046102.	3.3	7
45	In Memoriam Robert M. Nerem, 1937â€“2020. Journal of Biomechanical Engineering, 2020, 142, .	0.6	0
46	DDEL-04. ENGINEERED NANOCARRIERS TO ENHANCE DRUG DELIVERY ACROSS THE BLOOD-BRAIN BARRIER. Neuro-Oncology, 2020, 22, iii284-iii284.	0.6	1
47	Models for Monocytic Cells in the Tumor Microenvironment. Advances in Experimental Medicine and Biology, 2020, 1224, 87-115.	0.8	8
48	Bloodâ€“Brain Barrier Dysfunction in a 3D In Vitro Model of Alzheimer's Disease. Advanced Science, 2019, 6, 1900962.	5.6	168
49	Studying nucleicÂenvelope and plasma membrane mechanics of eukaryotic cells using confocal reflectance interferometric microscopy. Nature Communications, 2019, 10, 3652.	5.8	20
50	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
51	MicroRNA delivery through nanoparticles. Journal of Controlled Release, 2019, 313, 80-95.	4.8	235
52	Microcirculationâ€onâ€Chip: Application of Transmural Flow Across In Vitro Microvasculature Enables Direct Sampling of Interstitial Therapeutic Molecule Distribution (Small 46/2019). Small, 2019, 15, 1970247.	5.2	1
53	Pericytes Contribute to Dysfunction in a Human 3D Model of Placental Microvasculature through VEGFâ€Angâ€Tie2 Signaling. Advanced Science, 2019, 6, 1900878.	5.6	65
54	Microphysiological systems. APL Bioengineering, 2019, 3, 040401.	3.3	1

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55	Application of Transmural Flow Across In Vitro Microvasculature Enables Direct Sampling of Interstitial Therapeutic Molecule Distribution. Small, 2019, 15, e1902393.	5.2	37
56	Quantitative screening of the effects of hyper-osmotic stress on cancer cells cultured in 2- or 3-dimensional settings. Scientific Reports, 2019, 9, 13782.	1.6	23
57	Microfluidic assessment of metastatic potential. Nature Biomedical Engineering, 2019, 3, 423-424.	11.6	3
58	An on-chip model of protein paracellular and transcellular permeability in the microcirculation. Biomaterials, 2019, 212, 115-125.	5.7	80
59	Remodeling of the Tumor Microenvironment by a Chemokine/Anti-PD-L1 Nanobody Fusion Protein. Molecular Pharmaceutics, 2019, 16, 2838-2844.	2.3	20
60	Balance of mechanical forces drives endothelial gap formation and may facilitate cancer and immune-cell extravasation. PLoS Computational Biology, 2019, 15, e1006395.	1.5	53
61	THER-15. FUNCTIONALIZED NANOPARTICLE TRAFFICKING ASSESSED IN A NOVEL MICROFLUIDIC MODEL OF THE BLOOD-BRAIN BARRIER WITH HIGH GRADE GLIOMA SPHEROIDS. Neuro-Oncology, 2019, 21, ii117-ii117.	0.6	1
62	Self-organization of hepatocyte morphogenesis depending on the size of collagen microbeads relative to hepatocytes. Biofabrication, 2019, 11, 035007.	3.7	7
63	Migration of vascular endothelial cells in monolayers under hypoxic exposure. Integrative Biology (United Kingdom), 2019, 11, 26-35.	0.6	20
64	Phthalimide Derivative Shows Anti-angiogenic Activity in a 3D Microfluidic Model and No Teratogenicity in Zebrafish Embryos. Frontiers in Pharmacology, 2019, 10, 349.	1.6	20
65	Dynamic filopodial forces induce accumulation, damage, and plastic remodeling of 3D extracellular matrices. PLoS Computational Biology, 2019, 15, e1006684.	1.5	74
66	Quantification of human neuromuscular function through optogenetics. Theranostics, 2019, 9, 1232-1246.	4.6	44
67	Platelet decoys inhibit thrombosis and prevent metastatic tumor formation in preclinical models. Science Translational Medicine, 2019, 11, .	5.8	55
68	Biohybrid valveless pump-bot powered by engineered skeletal muscle. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1543-1548.	3.3	67
69	Construction of Continuous Capillary Networks Stabilized by Pericyte-like Perivascular Cells. Tissue Engineering - Part A, 2019, 25, 499-510.	1.6	40
70	The effects of monocytes on tumor cell extravasation in a 3D vascularized microfluidic model. Biomaterials, 2019, 198, 180-193.	5.7	110
71	Mentoring and Education: A Lifetime of Experience and Learning. Journal of Biomechanical Engineering, 2019, 141, .	0.6	2
72	Abstract A049: Three-dimensional microfluidic platform mimicking the tumor microenvironment. Cancer Immunology Research, 2019, 7, A049-A049.	1.6	1

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73	Molecular & Cellular Biomechanics In Honor of The 100th Brithday of Professor Yuan-Cheng Fung. , 2019, , .		0
74	Abstract 958: Tumor-vascular interactions promote STING-driven inflammation in the tumor microenvironment. , 2019, , .		0
75	Complex mechanics of the heterogeneous extracellular matrix in cancer. Extreme Mechanics Letters, 2018, 21, 25-34.	2.0	158
76	Vascularized microfluidic organ-chips for drug screening, disease models and tissue engineering. Current Opinion in Biotechnology, 2018, 52, 116-123.	3.3	95
77	Cell contraction induces long-ranged stress stiffening in the extracellular matrix. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4075-4080.	3.3	231
78	Computational modeling of three-dimensional ECM-rigidity sensing to guide directed cell migration. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E390-E399.	3.3	88
79	Cooperative Effects of Vascular Angiogenesis and Lymphangiogenesis. Regenerative Engineering and Translational Medicine, 2018, 4, 120-132.	1.6	51
80	Engineered 3D vascular and neuronal networks in a microfluidic platform. Scientific Reports, 2018, 8, 5168.	1.6	123
81	In Vitro Modeling of Mechanics in Cancer Metastasis. ACS Biomaterials Science and Engineering, 2018, 4, 294-301.	2.6	64
82	ADAM8 expression in breast cancer derived brain metastases: Functional implications on MMPâ€9 expression and transendothelial migration in breast cancer cells. International Journal of Cancer, 2018, 142, 779-791.	2.3	42
83	In Vitro Microfluidic Models for Neurodegenerative Disorders. Advanced Healthcare Materials, 2018, 7, 1700489.	3.9	98
84	<i>Ex Vivo</i> Profiling of PD-1 Blockade Using Organotypic Tumor Spheroids. Cancer Discovery, 2018, 8, 196-215.	7.7	392
85	Crosstalk between developing vasculature and optogenetically engineered skeletal muscle improves muscle contraction and angiogenesis. Biomaterials, 2018, 156, 65-76.	5.7	59
86	Cellâ€"Extracellular Matrix Mechanobiology: Forceful Tools and Emerging Needs for Basic and Translational Research. Nano Letters, 2018, 18, 1-8.	4.5	103
87	A combined microfluidic-transcriptomic approach to characterize the extravasation potential of cancer cells. Oncotarget, 2018, 9, 36110-36125.	0.8	26
88	Foreword to mechanobiology in health and disease. , 2018, , xvii-xviii.		0
89	A 3D microvascular network model to study the impact of hypoxia on the extravasation potential of breast cell lines. Scientific Reports, 2018, 8, 17949.	1.6	62
90	Microphysiological 3D model of amyotrophic lateral sclerosis (ALS) from human iPS-derived muscle cells and optogenetic motor neurons. Science Advances, 2018, 4, eaat5847.	4.7	282

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91	Perspective: The promise of multi-cellular engineered living systems. APL Bioengineering, 2018, 2, 040901.	3.3	110
92	Engineered Models of Metastasis with Application to Study Cancer Biomechanics. Advances in Experimental Medicine and Biology, 2018, 1092, 189-207.	0.8	5
93	3D microfluidic <i>ex vivo</i> culture of organotypic tumor spheroids to model immune checkpoint blockade. Lab on A Chip, 2018, 18, 3129-3143.	3.1	185
94	Evidence from ITIR-FCS Diffusion Studies that the Amyloid-Beta (AÎ²) Peptide Does Not Perturb Plasma Membrane Fluidity in Neuronal Cells. Journal of Molecular Biology, 2018, 430, 3439-3453.	2.0	5
95	<i>In vitro</i> models of molecular and nano-particle transport across the blood-brain barrier. Biomicrofluidics, 2018, 12, 042213.	1.2	61
96	Interstitial flow promotes macrophage polarization toward an M2 phenotype. Molecular Biology of the Cell, 2018, 29, 1927-1940.	0.9	83
97	Studying TCR T cell anti-tumor activity in a microfluidic intrahepatic tumor model. Methods in Cell Biology, 2018, 146, 199-214.	0.5	9
98	Epithelial-Mesenchymal Transition Induces Podocalyxin to Promote Extravasation via Ezrin Signaling. Cell Reports, 2018, 24, 962-972.	2.9	51
99	Characterizing the Role of Monocytes in T Cell Cancer Immunotherapy Using a 3D Microfluidic Model. Frontiers in Immunology, 2018, 9, 416.	2.2	91
100	3D self-organized microvascular model of the human blood-brain barrier with endothelial cells, pericytes and astrocytes. Biomaterials, 2018, 180, 117-129.	5.7	499
101	Hydrogel-incorporating unit in a well: 3D cell culture for high-throughput analysis. Lab on A Chip, 2018, 18, 2604-2613.	3.1	19
102	Influence of protein corona and caveolae-mediated endocytosis on nanoparticle uptake and transcytosis. Nanoscale, 2018, 10, 12386-12397.	2.8	68
103	Inflamed neutrophils sequestered at entrapped tumor cells via chemotactic confinement promote tumor cell extravasation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7022-7027.	3.3	132
104	A process engineering approach to increase organoid yield. Development (Cambridge), 2017, 144, 1128-1136.	1.2	51
105	A versatile microfluidic device for high throughput production of microparticles and cell microencapsulation. Lab on A Chip, 2017, 17, 2067-2075.	3.1	39
106	Integrated Analysis of Intracellular Dynamics of MenaINV Cancer Cells in a 3D Matrix. Biophysical Journal, 2017, 112, 1874-1884.	0.2	14
107	Endothelial monolayer permeability under controlled oxygen tension. Integrative Biology (United) Tj ETQq1 1 0.784314 rgBT /Overloc	0.6	37
108	A Facile Method to Probe the Vascular Permeability of Nanoparticles in Nanomedicine Applications. Scientific Reports, 2017, 7, 707.	1.6	49

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109	Emerging Trends in Micro- and Nanoscale Technologies in Medicine: From Basic Discoveries to Translation. ACS Nano, 2017, 11, 5195-5214.	7.3	104
110	A microfluidics assay to study invasion of human placental trophoblast cells. Journal of the Royal Society Interface, 2017, 14, 20170131.	1.5	68
111	On-chip human microvasculature assay for visualization and quantification of tumor cell extravasation dynamics. Nature Protocols, 2017, 12, 865-880.	5.5	297
112	Advances in on-chip vascularization. Regenerative Medicine, 2017, 12, 285-302.	0.8	125
113	A 3D neurovascular microfluidic model consisting of neurons, astrocytes and cerebral endothelial cells as a bloodâ€"brain barrier. Lab on A Chip, 2017, 17, 448-459.	3.1	338
114	Cellular Nanomechanics. Springer Handbooks, 2017, , 1069-1100.	0.3	2
115	Dynamic interplay between tumour, stroma and immune system can drive or prevent tumour progression. Convergent Science Physical Oncology, 2017, 3, 034002.	2.6	114
116	Dynamic modeling of cancer cell migration in an extracellular matrix fiber network. , 2017, , .		0
117	Macrophage-Secreted TNFÎ± and TGFÎ²1 Influence Migration Speed and Persistence of Cancer Cells in 3D Tissue Culture via Independent Pathways. Cancer Research, 2017, 77, 279-290.	0.4	86
118	A 3D microfluidic model for preclinical evaluation of TCR-engineered T cells against solid tumors. JCI Insight, 2017, 2, .	2.3	169
119	Morphological Transformation and Force Generation of Active Cytoskeletal Networks. PLoS Computational Biology, 2017, 13, e1005277.	1.5	48
120	Abstract B22: Role of monocytes in 3D microfluidic models of cancer cell extravasation. , 2017, , .		2
121	Human cardiac fibroblasts adaptive responses to controlled combined mechanical strain and oxygen changes in vitro. ELife, 2017, 6, .	2.8	41
122	Abstract A49: Tumor-associated interstitial flow promotes macrophage migration and pro-metastatic M2 phenotype in 3D ECM. , 2017, , .		0
123	Abstract A53: Probing forces and modulation of cancer cell mechanical properties during transendothelial migration. , 2017, , .		1
124	Abstract 5814: Engineered microfluidic 3D human microvasculature identifies Talin-1-dependent adhesion and FAK activation as the key promoter of cancer cell trans-endothelial migration. , 2017, , .		1
125	Simultaneous or Sequential Orthogonal Gradient Formation in a 3D Cell Culture Microfluidic Platform. Small, 2016, 12, 612-622.	5.2	83
126	Onâ€chip assessment of human primary cardiac fibroblasts proliferative responses to uniaxial cyclic mechanical strain. Biotechnology and Bioengineering, 2016, 113, 859-869.	1.7	50

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127	Engineering a 3D microfluidic culture platform for tumor-treating field application. Scientific Reports, 2016, 6, 26584.	1.6	73
128	Constructive remodeling of a synthetic endothelial extracellular matrix. Scientific Reports, 2016, 5, 18290.	1.6	28
129	Microfluidic models for adoptive cell-mediated cancer immunotherapies. Drug Discovery Today, 2016, 21, 1472-1478.	3.2	63
130	PO-12 - The key role of talin-1 in cancer cell extravasation dissected through human vascularized 3D microfluidic model. Thrombosis Research, 2016, 140, S180-S181.	0.8	6
131	Neutrophils Suppress Intraluminal NK Cellâ€"Mediated Tumor Cell Clearance and Enhance Extravasation of Disseminated Carcinoma Cells. Cancer Discovery, 2016, 6, 630-649.	7.7	369
132	A Chemomechanical Model for Nuclear Morphology and Stresses during Cell Transendothelial Migration. Biophysical Journal, 2016, 111, 1541-1552.	0.2	112
133	Cell adhesion during bullet motion in capillaries. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 311, H395-H403.	1.5	32
134	Microfluidic device for the formation of optically excitable, three-dimensional, compartmentalized motor units. Science Advances, 2016, 2, e1501429.	4.7	192
135	Warburg metabolism in tumor-conditioned macrophages promotes metastasis in human pancreatic ductal adenocarcinoma. OncoImmunology, 2016, 5, e1191731.	2.1	178
136	Effects of 3D geometries on cellular gradient sensing and polarization. Physical Biology, 2016, 13, 036008.	0.8	21
137	Microfluidics: Simultaneous or Sequential Orthogonal Gradient Formation in a 3D Cell Culture Microfluidic Platform (Small 5/2016). Small, 2016, 12, 688-688.	5.2	3
138	Single-Cell Migration in Complex Microenvironments: Mechanics and Signaling Dynamics. Journal of Biomechanical Engineering, 2016, 138, 021004.	0.6	74
139	Interplay of active processes modulates tension and drives phase transition in self-renewing, motor-driven cytoskeletal networks. Nature Communications, 2016, 7, 10323.	5.8	76
140	Elucidation of the Roles of Tumor Integrin Î²1 in the Extravasation Stage of the Metastasis Cascade. Cancer Research, 2016, 76, 2513-2524.	0.4	129
141	Microfluidics: A New Tool for Modeling Cancerâ€"Immune Interactions. Trends in Cancer, 2016, 2, 6-19.	3.8	163
142	Optogenetic skeletal muscle-powered adaptive biological machines. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3497-3502.	3.3	234
143	Impact of the physical microenvironment on tumor progression and metastasis. Current Opinion in Biotechnology, 2016, 40, 41-48.	3.3	437
144	Breast Cancer Cell Invasion into a Three Dimensional Tumor-Stroma Microenvironment. Scientific Reports, 2016, 6, 34094.	1.6	109

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145	Abstract 1578: Exploring the role of tumor-conditioned macrophage metabolism on extravasation of pancreatic ductal adenocarcinoma cells. , 2016, , .		3
146	Abstract A126: The role of macrophages and monocytes during cancer cell extravasation in 3D vascularized microfluidic models. , 2016, , .		2
147	Controlled electromechanical cell stimulation on-a-chip. Scientific Reports, 2015, 5, 11800.	1.6	97
148	Multiscale mechanobiology: computational models for integrating molecules to multicellular systems. Integrative Biology (United Kingdom), 2015, 7, 1093-1108.	0.6	33
149	Modeling the Blood-Brain Barrier in a 3D triple co-culture microfluidic system. , 2015, 2015, 338-41.		24
150	Using microfluidics to investigate tumor cell extravasation and T-cell immunotherapies. , 2015, 2015, 1853-6.		14
151	Activatable and Cell-Penetrable Multiplex FRET Nanosensor for Profiling MT1-MMP Activity in Single Cancer Cells. Nano Letters, 2015, 15, 5025-5032.	4.5	50
152	Multiscale impact of nucleotides and cations on the conformational equilibrium, elasticity and rheology of actin filaments and crosslinked networks. Biomechanics and Modeling in Mechanobiology, 2015, 14, 1143-1155.	1.4	31
153	Noncontact three-dimensional mapping of intracellular hydromechanical properties by Brillouin microscopy. Nature Methods, 2015, 12, 1132-1134.	9.0	326
154	A quantitative microfluidic angiogenesis screen for studying anti-angiogenic therapeutic drugs. Lab on A Chip, 2015, 15, 301-310.	3.1	116
155	Human 3D vascularized organotypic microfluidic assays to study breast cancer cell extravasation. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 214-219.	3.3	616
156	Human Vascular Tissue Models Formed from Human Induced Pluripotent Stem Cell Derived Endothelial Cells. Stem Cell Reviews and Reports, 2015, 11, 511-525.	5.6	107
157	Cell Invasion Dynamics into a Three Dimensional Extracellular Matrix Fibre Network. PLoS Computational Biology, 2015, 11, e1004535.	1.5	60
158	Contact-dependent carcinoma aggregate dispersion by M2a macrophages via ICAM-1 and Î²2 integrin interactions. Oncotarget, 2015, 6, 25295-25307.	0.8	97
159	Identification of drugs as single agents or in combination to prevent carcinoma dissemination in a microfluidic 3D environment. Oncotarget, 2015, 6, 36603-36614.	0.8	57
160	Impact of Dimensionality and Network Disruption on Microrheology of Cancer Cells in 3D Environments. PLoS Computational Biology, 2014, 10, e1003959.	1.5	35
161	Multiscale analysis of cancer cell mechanics. , 2014, , .		0
162	Drug Screening: Rapid Prototyping of Concave Microwells for the Formation of 3D Multicellular Cancer Aggregates for Drug Screening (Adv. Healthcare Mater. 4/2014). Advanced Healthcare Materials, 2014, 3, 620-620.	3.9	0

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163	Creating Living Cellular Machines. Annals of Biomedical Engineering, 2014, 42, 445-459.	1.3	92
164	Quantifying intracellular protein binding thermodynamics during mechanotransduction based on FRET spectroscopy. Methods, 2014, 66, 208-221.	1.9	3
165	A microfluidic 3D inÂvitro model for specificity of breast cancer metastasis to bone. Biomaterials, 2014, 35, 2454-2461.	5.7	440
166	Rapid Prototyping of Concave Microwells for the Formation of 3D Multicellular Cancer Aggregates for Drug Screening. Advanced Healthcare Materials, 2014, 3, 609-616.	3.9	77
167	In Vitro Microvessel Growth and Remodeling within a Three-Dimensional Microfluidic Environment. Cellular and Molecular Bioengineering, 2014, 7, 15-25.	1.0	49
168	Image-based modeling for better understanding and assessment of atherosclerotic plaque progression and vulnerability: Data, modeling, validation, uncertainty and predictions. Journal of Biomechanics, 2014, 47, 834-846.	0.9	59
169	Control of Perfusable Microvascular Network Morphology Using a Multiculture Microfluidic System. Tissue Engineering - Part C: Methods, 2014, 20, 543-552.	1.1	188
170	Oxygen levels in thermoplastic microfluidic devices during cell culture. Lab on A Chip, 2014, 14, 459-462.	3.1	71
171	A time-dependent phenomenological model for cell mechano-sensing. Biomechanics and Modeling in Mechanobiology, 2014, 13, 451-462.	1.4	13
172	Validating Antimetastatic Effects of Natural Products in an Engineered Microfluidic Platform Mimicking Tumor Microenvironment. Molecular Pharmaceutics, 2014, 11, 2022-2029.	2.3	40
173	Microfabrication and microfluidics for muscle tissue models. Progress in Biophysics and Molecular Biology, 2014, 115, 279-293.	1.4	43
174	Generation of 3D functional microvascular networks with human mesenchymal stem cells in microfluidic systems. Integrative Biology (United Kingdom), 2014, 6, 555-563.	0.6	195
175	In vitro models of the metastatic cascade: from local invasion to extravasation. Drug Discovery Today, 2014, 19, 735-742.	3.2	73
176	USNCTAM perspectives on mechanics in medicine. Journal of the Royal Society Interface, 2014, 11, 20140301.	1.5	35
177	Mechanotransduction of fluid stresses governs 3D cell migration. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2447-2452.	3.3	214
178	Probabilistic Voxel-Fe model for single cell motility in 3D. In Silico Cell and Tissue Science, 2014, 1, 2.	2.6	26
179	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
180	Extracellular Matrix Heterogeneity Regulates Threeâ€Dimensional Morphologies of Breast Adenocarcinoma Cell Invasion. Advanced Healthcare Materials, 2013, 2, 790-794.	3.9	33

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181	Endothelial cell phenotypic behaviors cluster into dynamic state transition programs modulated by angiogenic and angiostatic cytokines. Integrative Biology (United Kingdom), 2013, 5, 510.	0.6	4
182	Microfluidic Platforms for Evaluating Angiogenesis and Vasculogenesis. , 2013, , 385-403.		0
183	Mechanisms of tumor cell extravasation in an in vitro microvascular network platform. Integrative Biology (United Kingdom), 2013, 5, 1262.	0.6	244
184	Screening therapeutic EMT blocking agents in a three-dimensional microenvironment. Integrative Biology (United Kingdom), 2013, 5, 381-389.	0.6	150
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