A tense situation: forcing tumour progression

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#	Article	IF	Citations
3	Biomechanical regulation of cell orientation and fate. Oncogene, 2008, 27, 6981-6993.	2.6	134
4	Universal behavior of the osmotically compressed cell and its analogy to the colloidal glass transition. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10632-10637.	3.3	223
5	Activated Abl kinase inhibits oncogenic transforming growth factorâ€Î² signaling and tumorigenesis in mammary tumors. FASEB Journal, 2009, 23, 4231-4243.	0.2	56
6	Non-muscle myosin II takes centre stage in cell adhesion and migration. Nature Reviews Molecular Cell Biology, 2009, 10, 778-790.	16.1	1,634
7	Matrix Crosslinking Forces Tumor Progression by Enhancing Integrin Signaling. Cell, 2009, 139, 891-906.	13.5	3,319
8	Collagen-based cell migration models in vitro and in vivo. Seminars in Cell and Developmental Biology, 2009, 20, 931-941.	2.3	558
9	Crosslinking of cell-derived 3D scaffolds up-regulates the stretching and unfolding of new extracellular matrix assembled by reseeded cells. Integrative Biology (United Kingdom), 2009, 1, 635.	0.6	58
10	Biophysical models of tumour growth. Reports on Progress in Physics, 2009, 72, 056701.	8.1	145
11	Nonlinear elastic properties of polyacrylamide gels: Implications for quantification of cellular forces. Biorheology, 2009, 46, 191-205.	1.2	54
12	The Implications of Human Stem Cell Differentiation to Endothelial Cell Via Fluid Shear Stress in Cardiovascular Regenerative Medicine: A Review. Current Pharmaceutical Design, 2010, 16, 3848-3861.	0.9	16
13	DNA damage signaling is activated during cancer progression in human colorectal carcinoma. Cancer Biology and Therapy, 2010, 9, 245-251.	1.5	39
14	Insights into the Dynamics of Focal Adhesion Protein Trafficking in Invasive Cancer Cells and Clinical Implications. Cancer Metastasis - Biology and Treatment, 2010, , 137-155.	0.1	0
15	Intrinsic extracellular matrix properties regulate stem cell differentiation. Journal of Biomechanics, 2010, 43, 55-62.	0.9	697
16	A 2D mechanistic model of breast ductal carcinoma in situ (DCIS) morphology and progression. Journal of Theoretical Biology, 2010, 263, 393-406.	0.8	47
17	A Digest on the Role of the Tumor Microenvironment in Gastrointestinal Cancers. Cancer Microenvironment, 2010, 3, 167-176.	3.1	33
18	Microfabricated substrates as a tool to study cell mechanotransduction. Medical and Biological Engineering and Computing, 2010, 48, 965-976.	1.6	62
19	Gene Expression in the Third Dimension: The ECM-nucleus Connection. Journal of Mammary Gland Biology and Neoplasia, 2010, 15, 65-71.	1.0	57
20	The Pathophysiology of Epithelial-Mesenchymal Transition Induced by Transforming Growth Factor-Î² in Normal and Malignant Mammary Epithelial Cells. Journal of Mammary Gland Biology and Neoplasia, 2010, 15, 169-190.	1.0	202

#	Article	IF	Citations
21	Extracellular Matrix Composition Reveals Complex and Dynamic Stromal-Epithelial Interactions in the Mammary Gland. Journal of Mammary Gland Biology and Neoplasia, 2010, 15, 301-318.	1.0	97
22	Soluble factors derived from tumor mammary cell lines induce a stromal mammary adipose reversion in human and mice adipose cells. Possible role of TGF-Î²1 and TNF-Î±. Breast Cancer Research and Treatment, 2010, 119, 497-508.	1.1	44
23	Unique biomechanical interactions between myeloma cells and bone marrow stroma cells. Progress in Biophysics and Molecular Biology, 2010, 103, 148-156.	1.4	15
24	Physico-mechanical aspects of extracellular matrix influences on tumorigenic behaviors. Seminars in Cancer Biology, 2010, 20, 139-145.	4.3	108
25	Frontiers in cancer nanomedicine: directing mass transport through biological barriers. Trends in Biotechnology, 2010, 28, 181-188.	4.9	270
26	Actin Crosslinkers: Repairing theÂSense of Touch. Current Biology, 2010, 20, R895-R896.	1.8	2
27	Promigratory and procontractile growth factor environments differentially regulate cell morphogenesis. Experimental Cell Research, 2010, 316, 232-244.	1.2	28
28	Pancreatic cancer organotypic cultures. Journal of Biotechnology, 2010, 148, 16-23.	1.9	44
29	Multiphase modeling of tumor growth with matrix remodeling and fibrosis. Mathematical and Computer Modelling, 2010, 52, 969-976.	2.0	16
30	A novel platform for in situ investigation of cells and tissues under mechanical strain. Acta Biomaterialia, 2010, 6, 2979-2990.	4.1	34
31	The differential regulation of cell motile activity through matrix stiffness and porosity in three dimensional collagen matrices. Biomaterials, 2010, 31, 6425-6435.	5.7	198
32	Biophysics and dynamics of natural and engineered stem cell microenvironments. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2010, 2, 49-64.	6.6	55
33	Mechanotransduction: a major regulator of homeostasis and development. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2010, 2, 625-639.	6.6	50
34	Enhanced tumor growth in the NaS1 sulfate transporter null mouse. Cancer Science, 2010, 101, 369-373.	1.7	13
35	TWISTing an embryonic transcription factor into an oncoprotein. Oncogene, 2010, 29, 3173-3184.	2.6	155
36	Tissueâ€specific calibration of extracellular matrix material properties by transforming growth factorâ€Î²2 and Runx2 in bone is required for hearing. EMBO Reports, 2010, 11, 765-771.	2.0	37
37	Allosteric inhibition of lysyl oxidaseâ€“like-2 impedes the development of a pathologic microenvironment. Nature Medicine, 2010, 16, 1009-1017.	15.2	755
38	A Novel 3-D Mineralized Tumor Model to Study Breast Cancer Bone Metastasis. PLoS ONE, 2010, 5, e8849.	1.1	95

#	Article	IF	Citations
39	Pericellular fibronectin is required for RhoA-dependent responses to cyclic strain in fibroblasts. Journal of Cell Science, 2010, 123, 1511-1521.	1.2	38
40	ADAMTS1 Contributes to the Acquisition of an Endothelial-like Phenotype in Plastic Tumor Cells. Cancer Research, 2010, 70, 4676-4686.	0.4	45
41	Breast Tissue Composition and Susceptibility to Breast Cancer. Journal of the National Cancer Institute, 2010, 102, 1224-1237.	3.0	378
42	Current trends in mathematical modeling of tumorâ€“microenvironment interactions: a survey of tools and applications. Experimental Biology and Medicine, 2010, 235, 411-423.	1.1	54
43	Cell-Matrix Interactions in Mammary Gland Development and Breast Cancer. Cold Spring Harbor Perspectives in Biology, 2010, 2, a003202-a003202.	2.3	143
44	Stress relaxation and creep on living cells with the atomic force microscope: a means to calculate elastic moduli and viscosities of cell components. Nanotechnology, 2010, 21, 445101.	1.3	110
45	In silicoestimates of the free energy rates in growing tumor spheroids. Journal of Physics Condensed Matter, 2010, 22, 194122.	0.7	24
46	The First Type III Repeat in Fibronectin Activates an Inflammatory Pathway in Dermal Fibroblasts. Journal of Biological Chemistry, 2010, 285, 36255-36259.	1.6	45
47	Mechanical control of tissue and organ development. Development (Cambridge), 2010, 137, 1407-1420.	1.2	732
48	Dispersion and Shear Modulus Measurements of Porcine Liver. Ultrasonic Imaging, 2010, 32, 255-266.	1.4	23
49	Fluidization of tissues by cell division and apoptosis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 20863-20868.	3.3	379
50	Enforcing Order on Signaling. Science, 2010, 327, 1335-1336.	6.0	9
51	Reversible transdifferentiation of blood vascular endothelial cells to a lymphatic-like phenotype in vitro. Journal of Cell Science, 2010, 123, 3808-3816.	1.2	44
52	Luminescent nanocrystal stress gauge. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21306-21310.	3.3	57
53	Integrin signaling and lung cancer. Cell Adhesion and Migration, 2010, 4, 124-129.	1.1	47
54	Mammographic density as a predictor of breast cancer outcome. Future Oncology, 2010, 6, 351-354.	1.1	10
55	Roles of the cytoskeleton in regulating EphA2 signals. Communicative and Integrative Biology, 2010, 3, 454-457.	0.6	11
56	Hsp90 inhibition induces destabilization of actin cytoskeleton in tumor cells: functional significance of Hsp90 interaction with Fâ€“actin. Asian Pacific Journal of Tropical Medicine, 2010, 3, 715-722.	0.4	1

#	Article	IF	Citations
57	Ultrasonic Nanotherapy of Pancreatic Cancer: Lessons from Ultrasound Imaging. Molecular Pharmaceutics, 2010, 7, 22-31.	2.3	78
58	The extracellular matrix at a glance. Journal of Cell Science, 2010, 123, 4195-4200.	1.2	3,130
59	Cell Motility and Mechanics in Three-Dimensional Collagen Matrices. Annual Review of Cell and Developmental Biology, 2010, 26, 335-361.	4.0	298
60	Interaction between the extracellular matrix and lymphatics: Consequences for lymphangiogenesis and lymphatic function. Matrix Biology, 2010, 29, 645-656.	1.5	68
61	Interfering with the connection between the nucleus and the cytoskeleton affects nuclear rotation, mechanotransduction and myogenesis. International Journal of Biochemistry and Cell Biology, 2010, 42, 1717-1728.	1.2	98
62	Extracellular matrix: A gatekeeper in the transition from dormancy to metastatic growth. European Journal of Cancer, 2010, 46, 1181-1188.	1.3	326
63	Cyclic stretch-induced stress fiber dynamics â€“ Dependence on strain rate, Rho-kinase and MLCK. Biochemical and Biophysical Research Communications, 2010, 401, 344-349.	1.0	85
64	Matrix Metalloproteinases: Regulators of the Tumor Microenvironment. Cell, 2010, 141, 52-67.	13.5	4,103
65	Restriction of Receptor Movement Alters Cellular Response: Physical Force Sensing by EphA2. Science, 2010, 327, 1380-1385.	6.0	301
66	Multi-component extracellular matrices based on peptide self-assembly. Chemical Society Reviews, 2010, 39, 3413.	18.7	220
67	Alternatively Activated Macrophages and Collagen Remodeling Characterize the Postpartum Involuting Mammary Gland across Species. American Journal of Pathology, 2010, 176, 1241-1255.	1.9	251
68	The Tumor Microenvironment. , 2010, , .		6
69	Microtopographical Cues in 3D Attenuate Fibrotic Phenotype and Extracellular Matrix Deposition: Implications for Tissue Regeneration. Tissue Engineering - Part A, 2010, 16, 2519-2527.	1.6	48
70	Microfluidic Culture Models of Tumor Angiogenesis. Tissue Engineering - Part A, 2010, 16, 2143-2146.	1.6	75
71	Minireview: A Tiny Touch: Activation of Cell Signaling Pathways with Magnetic Nanoparticles. Endocrinology, 2010, 151, 451-457.	1.4	64
72	Integrin Î±3 blockade enhances microtopographical down-regulation of Î±-smooth muscle actin: role of microtopography in ECM regulation. Integrative Biology (United Kingdom), 2011, 3, 733.	0.6	11
73	In situforce mapping of mammary gland transformation. Integrative Biology (United Kingdom), 2011, 3, 910-921.	0.6	242
74	Direct Detection of Cellular Adaptation to Local Cyclic Stretching at the Single Cell Level by Atomic Force Microscopy. Biophysical Journal, 2011, 100, 564-572.	0.2	32

#	Article	IF	Citations
75	Remodeling and homeostasis of the extracellular matrix: implications for fibrotic diseases and cancer. DMM Disease Models and Mechanisms, 2011, 4, 165-178.	1.2	1,248
76	Invasive cancer cell lines exhibit biomechanical properties that are distinct from their noninvasive counterparts. Soft Matter, 2011, 7, 11488.	1.2	50
77	Cancer tumors as Metazoa 1.0: tapping genes of ancient ancestors. Physical Biology, 2011, 8, 015001.	0.8	178
78	The Role of the Myofibroblast in Fibrosis and Cancer Progression. , 2011, , 37-74.		5
79	An Eulerian/XFEM formulation for the large deformation of cortical cell membrane. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 433-445.	0.9	25
80	3-D FDTD simulation of shear waves for evaluation of complex modulus imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 389-398.	1.7	28
81	A new micropatterning method of soft substrates reveals that different tumorigenic signals can promote or reduce cell contraction levels. Lab on A Chip, 2011, 11, 2231.	3.1	217
82	Postpartum mammary gland involution drives progression of ductal carcinoma in situ through collagen and COX-2. Nature Medicine, 2011, 17, 1109-1115.	15.2	318
84	Lysyl Oxidase Contributes to Mechanotransduction-Mediated Regulation of Transforming Growth Factor-Î² Signaling in Breast Cancer Cells. Neoplasia, 2011, 13, 406-IN2.	2.3	85
85	Collective epithelial cell invasion overcomes mechanical barriers of collagenous extracellular matrix by a narrow tube-like geometry and MMP14-dependent local softening. Integrative Biology (United Kingdom), 2011, 3, 1153.	0.6	50
86	A Systems Biology Approach to Cancer: Fractals, Attractors, and Nonlinear Dynamics. OMICS A Journal of Integrative Biology, 2011, 15, 93-104.	1.0	55
87	Feedback control system simulator for the control of biological cells in microfluidic cross slots and integrated microfluidic systems. Lab on A Chip, 2011, 11, 2343.	3.1	10
88	Cancer-Associated Fibroblasts and Their Putative Role in Potentiating the Initiation and Development of Epithelial Ovarian Cancer. Neoplasia, 2011, 13, 393-405.	2.3	136
89	The Hippo Transducer TAZ Confers Cancer Stem Cell-Related Traits on Breast Cancer Cells. Cell, 2011, 147, 759-772.	13.5	1,115
90	Interventions that induce modifications in the tumor microenvironment. Cancer Radiotherapie: Journal De La Societe Francaise De Radiotherapie Oncologique, 2011, 15, 376-382.	0.6	10
91	Mechanical phenotype is important for stromal aromatase expression. Steroids, 2011, 76, 797-801.	0.8	10
92	Mammographic density and breast cancer risk: current understanding and future prospects. Breast Cancer Research, 2011, 13, 223.	2.2	485
93	Regulation of tumor invasion by interstitial fluid flow. Physical Biology, 2011, 8, 015012.	0.8	96

#	Article	IF	Citations
94	Bridging the Scales to Explore Cellular Adaptation and Remodeling. BioNanoScience, 2011, 1, 110-115.	1.5	7
96	Systems Biology of Tumor Cell Migration in 3D: Protein Signaling. , 2011, , 123-149.		0
97	Epithelial and mesenchymal phenotypic switchings modulate cell motility in metastasis. Frontiers in Bioscience - Landmark, 2011, 16, 815.	3.0	71
98	FAK Regulates Intestinal Epithelial Cell Survival and Proliferation during Mucosal Wound Healing. PLoS ONE, 2011, 6, e23123.	1.1	57
99	Quantitative Analysis of the Effect of Cancer Invasiveness and Collagen Concentration on 3D Matrix Remodeling. PLoS ONE, 2011, 6, e24891.	1.1	52
100	A Morphometric Study of Mechanotransductively Induced Dermal Neovascularization. Plastic and Reconstructive Surgery, 2011, 128, 288e-299e.	0.7	20
101	Role of TGF-Î² and the Tumor Microenvironment During Mammary Tumorigenesis. Gene Expression, 2011, 15, 117-132.	0.5	81
102	Embryonic Morphogenetic Field Induces Phenotypic Reversion in Cancer Cells. Review Article. Current Pharmaceutical Biotechnology, 2011, 12, 243-253.	0.9	33
103	Diverse mechanisms for activation of Wnt signalling in the ovarian tumour microenvironment. Biochemical Journal, 2011, 437, 1-12.	1.7	83
105	Soft lithography detects partial mechano-sensoric blindness to micrometre topography in cultured aged and diseased cells. International Journal of Materials Research, 2011, 102, 896-902.	0.1	2
106	Stretch-Induced Stress Fiber Remodeling and MAPK Activations Depend on Mechanical Strain Rate. , 2011, , .		0
107	Collective cell guidance by cooperative intercellular forces. Nature Materials, 2011, 10, 469-475.	13.3	781
108	What does physics have to do with cancer?. Nature Reviews Cancer, 2011, 11, 657-670.	12.8	168
109	Balancing forces: architectural control of mechanotransduction. Nature Reviews Molecular Cell Biology, 2011, 12, 308-319.	16.1	817
110	Forcing form and function: biomechanical regulation of tumor evolution. Trends in Cell Biology, 2011, 21, 47-56.	3.6	270
111	Plithotaxis and emergent dynamics in collective cellular migration. Trends in Cell Biology, 2011, 21, 638-646.	3.6	211
112	Extracellular matrix determinants of proteolytic and non-proteolytic cell migration. Trends in Cell Biology, 2011, 21, 736-744.	3.6	293
113	The role of the microenvironment in tumor growth and invasion. Progress in Biophysics and Molecular Biology, 2011, 106, 353-379.	1.4	145

#	Article	IF	Citations
114	Molecular Regulation of Lumen Morphogenesis. Current Biology, 2011, 21, R126-R136.	1.8	211
115	Specificities of Î²1 integrin signaling in the control of cell adhesion and adhesive strength. European Journal of Cell Biology, 2011, 90, 261-269.	1.6	14
116	Elucidating the mechanobiology of malignant brain tumors using a brain matrix-mimetic hyaluronic acid hydrogel platform. Biomaterials, 2011, 32, 7913-7923.	5.7	281
117	A cell-instructive hydrogel to regulate malignancy of 3D tumor spheroids with matrix rigidity. Biomaterials, 2011, 32, 9308-9315.	5.7	135
118	Actomyosin-Mediated Cellular Tension Drives Increased Tissue Stiffness and Î²-Catenin Activation to Induce Epidermal Hyperplasia and Tumor Growth. Cancer Cell, 2011, 19, 776-791.	7.7	477
119	Cell communication networks in cancer invasion. Current Opinion in Cell Biology, 2011, 23, 621-629.	2.6	73
120	Tumor microenvironment and progression. Journal of Surgical Oncology, 2011, 103, 468-474.	0.8	149
121	Lessons from (patho)physiological tissue stiffness and their implications for drug screening, drug delivery and regenerative medicine. Advanced Drug Delivery Reviews, 2011, 63, 269-276.	6.6	38
122	Noncanonical TGF-Î² Signaling During Mammary Tumorigenesis. Journal of Mammary Gland Biology and Neoplasia, 2011, 16, 127-146.	1.0	103
123	Intratumoral Drug Delivery with Nanoparticulate Carriers. Pharmaceutical Research, 2011, 28, 1819-1830.	1.7	145
124	Microbioreactor designed for integration with piezoelectric transducers for cellular diagnostics. Microfluidics and Nanofluidics, 2011, 11, 459-468.	1.0	3
125	Focal Adhesion Induction at the Tip of a Functionalized Nanoelectrode. Cellular and Molecular Bioengineering, 2011, 4, 616-626.	1.0	11
126	Contribution of Bone Tissue Modulus to Breast Cancer Metastasis to Bone. Cancer Microenvironment, 2011, 4, 247-259.	3.1	20
127	Bone Structural Components Regulating Sites of Tumor Metastasis. Current Osteoporosis Reports, 2011, 9, 89-95.	1.5	20
128	Nuclear and cytoplasmic LIMK1 enhances human breast cancer progression. Molecular Cancer, 2011, 10, 75.	7.9	49
129	A novel MCF-10A line allowing conditional oncogene expression in 3D culture. Cell Communication and Signaling, 2011, 9, 17.	2.7	34
130	Interaction of tumor cells with the microenvironment. Cell Communication and Signaling, 2011, 9, 18.	2.7	258
131	Dynamic interaction between breast cancer cells and osteoblastic tissue: Comparison of Twoâ€•and Threeâ€dimensional cultures. Journal of Cellular Physiology, 2011, 226, 2150-2158.	2.0	59

#	Article	IF	Citations
132	Extracellular proteolysis in macrophage migration: Losing grip for a breakthrough. European Journal of Immunology, 2011, 41, 2805-2813.	1.6	80
133	Three-dimensional porous silk tumor constructs in the approximation of inÂvivo osteosarcoma physiology. Biomaterials, 2011, 32, 6131-6137.	5.7	51
134	Advantages of RGD peptides for directing cell association with biomaterials. Biomaterials, 2011, 32, 4205-4210.	5.7	555
135	Perspectives on biological growth and remodeling. Journal of the Mechanics and Physics of Solids, 2011, 59, 863-883.	2.3	371
136	Biomechanical interpretation of a free-breathing lung motion model. Physics in Medicine and Biology, 2011, 56, 7523-7540.	1.6	6
137	The Bcl-2 repertoire of mesothelioma spheroids underlies acquired apoptotic multicellular resistance. Cell Death and Disease, 2011, 2, e174-e174.	2.7	48
138	Haploinsufficiency in the Prometastasis Kiss1 Receptor Gpr54 Delays Breast Tumor Initiation, Progression, and Lung Metastasis. Cancer Research, 2011, 71, 6535-6546.	0.4	41
139	Atomic Force Microscopy to Study Mechanics of Living Mitotic Mammalian Cells. Japanese Journal of Applied Physics, 2011, 50, 08LA01.	0.8	1
140	TGFÎ² and Runx2 calibration of bone extracellular matrix quality for tissue-specific function. IBMS BoneKEy, 2011, 8, 370-380.	0.1	2
141	Extracellular Matrix Degradation and Remodeling in Development and Disease. Cold Spring Harbor Perspectives in Biology, 2011, 3, a005058-a005058.	2.3	1,597
142	Lysophosphatidic acid-1-receptor targeting agents for fibrosis. Expert Opinion on Investigational Drugs, 2011, 20, 657-667.	1.9	72
143	Down-regulation of epithelial cadherin is required to initiate metastatic outgrowth of breast cancer. Molecular Biology of the Cell, 2011, 22, 2423-2435.	0.9	162
144	Molecular Architecture and Function of Matrix Adhesions. Cold Spring Harbor Perspectives in Biology, 2011, 3, a005033-a005033.	2.3	441
145	Experimental characterization of tumor spheroids for studies of the energetics of tumor growth. International Journal of Materials Research, 2011, 102, 889-895.	0.1	11
147	Matrix stiffening sensitizes epithelial cells to EGF and enables the loss of contact inhibition of proliferation. Journal of Cell Science, 2011, 124, 1280-1287.	1.2	94
148	The Cain and Abl of Epithelial-Mesenchymal Transition and Transforming Growth Factor-Î² in Mammary Epithelial Cells. Cells Tissues Organs, 2011, 193, 98-113.	1.3	22
149	Metastasis Suppressor Genes. International Review of Cell and Molecular Biology, 2011, 286, 107-180.	1.6	136
150	Engineering strategies to recapitulate epithelial morphogenesis within synthetic three-dimensional extracellular matrix with tunable mechanical properties. Physical Biology, 2011, 8, 026013.	0.8	72

#	Article	IF	Citations
151	An association between NUAK2 and MRIP reveals a novel mechanism for regulation of actin stress fibers. Journal of Cell Science, 2011, 124, 384-393.	1.2	37
152	The transcriptional regulator megakaryoblastic leukemiaâ€1 mediates serum response factorâ€independent activation of tenascinâ€C transcription by mechanical stress. FASEB Journal, 2011, 25, 3477-3488.	0.2	56
153	Mammary Gland Reprogramming: Metalloproteinases Couple Form with Function. Cold Spring Harbor Perspectives in Biology, 2011, 3, a004333-a004333.	2.3	43
154	Mechanical Stiffness Grades Metastatic Potential in Patient Tumor Cells and in Cancer Cell Lines. Cancer Research, 2011, 71, 5075-5080.	0.4	597
155	Actinâ€"Towards a Deeper Understanding of the Relationship Between Tissue Context, Cellular Function and Tumorigenesis. Cancers, 2011, 3, 4269-4280.	1.7	8
156	An â€œelite hackerâ€• Cell Adhesion and Migration, 2012, 6, 236-435.	1.1	34
157	ECM stiffness primes the TGFÎ² pathway to promote chondrocyte differentiation. Molecular Biology of the Cell, 2012, 23, 3731-3742.	0.9	173
158	Towards a more realistic biomechanical modelling of breast malignant tumours. Physics in Medicine and Biology, 2012, 57, 631-648.	1.6	8
159	Acellular Normal and Fibrotic Human Lung Matrices as a Culture System for In Vitro Investigation. American Journal of Respiratory and Critical Care Medicine, 2012, 186, 866-876.	2.5	552
160	Matrix rigidity regulates a switch between TGF-Î²1â€"induced apoptosis and epithelialâ€"mesenchymal transition. Molecular Biology of the Cell, 2012, 23, 781-791.	0.9	389
161	Contributions of talin-1 to glioma cellâ€"matrix tensional homeostasis. Journal of the Royal Society Interface, 2012, 9, 1311-1317.	1.5	39
162	Matrix stiffness reverses the effect of actomyosin tension on cell proliferation. Journal of Cell Science, 2012, 125, 5974-5983.	1.2	165
163	Targeting the Tumor Proteasome as a Mechanism to Control the Synthesis and Bioactivity of Matrix Macromolecules. Current Molecular Medicine, 2012, 12, 1068-1082.	0.6	16
164	Why the stroma matters in breast cancer. Cell Adhesion and Migration, 2012, 6, 249-260.	1.1	196
165	Role of the extracellular matrix in epithelial morphogenesis. Organogenesis, 2012, 8, 65-70.	0.4	25
166	A thermodynamical model for stress-fiber organization in contractile cells. Applied Physics Letters, 2012, 100, 13702-137024.	1.5	23
167	Multistage Nanoparticles for Improved Delivery into Tumor Tissue. Methods in Enzymology, 2012, 508, 109-130.	0.4	43
168	Host epithelial geometry regulates breast cancer cell invasiveness. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19632-19637.	3.3	64

#	Article	IF	Citations
169	Dual Regulation of Breast Tubulogenesis Using Extracellular Matrix Composition and Stromal Cells. Tissue Engineering - Part A, 2012, 18, 520-532.	1.6	20
170	Homeostatic Imbalance in Epithelial Ducts and Its Role in Carcinogenesis. Scientifica, 2012, 2012, 1-8.	0.6	9
171	The actin cross-linker Filamin/Cheerio mediates tumor malignancy downstream of JNK signaling. Journal of Cell Science, 2013, 126, 927-38.	1.2	54
172	The Microenvironmental Effect in the Progression, Metastasis, and Dormancy of Breast Cancer: A Model System within Bone Marrow. International Journal of Breast Cancer, 2012, 2012, 1-7.	0.6	33
173	Can liquid supercooling and glassy-like structure be invoked to interpret collective cell behaviour in the human body?. Physics and Chemistry of Liquids, 2012, 50, 137-151.	0.4	0
174	Introduction: MMPs, ADAMs/ADAMTSs Research Products to Achieve Big Dream. Anti-Cancer Agents in Medicinal Chemistry, 2012, 12, 688-706.	0.9	16
175	Actin cap associated focal adhesions and their distinct role in cellular mechanosensing. Scientific Reports, 2012, 2, 555.	1.6	159
176	Network biology and the 3-Dimensional tumor microenvironment: personalizing medicine for the future. Tumor Microenvironment and Therapy, 2012, 1, .	1.2	5
177	Filamins in Mechanosensing and Signaling. Annual Review of Biophysics, 2012, 41, 227-246.	4.5	211
178	Substrate stiffness regulates cadherin-dependent collective migration through myosin-II contractility. Journal of Cell Biology, 2012, 199, 545-563.	2.3	263
179	Dynamics of Stress Fibers Turnover in Contractile Cells. Journal of Engineering Mechanics - ASCE, 2012, 138, 1282-1287.	1.6	5
180	Cyclic mechanical stress downregulates endothelinâ€1 and its responsive genes independently of <scp>TGF</scp>Î²1 in dermal fibroblasts. Experimental Dermatology, 2012, 21, 765-770.	1.4	13
181	Systems Biology Approach to Metabolomics in Cancer Studies. , 2012, , 3-37.		1
182	Cell confinement controls centrosome positioning and lumen initiation during epithelial morphogenesis. Journal of Cell Biology, 2012, 198, 1011-1023.	2.3	103
183	Kinetics of the enzymeâ€“vesicle interaction including the formation of rafts and membrane strain. Biophysical Chemistry, 2012, 170, 17-24.	1.5	19
184	Breast fat and breast cancer. Breast Cancer Research and Treatment, 2012, 135, 321-323.	1.1	21
185	Transduction of mechanical and cytoskeletal cues by YAP and TAZ. Nature Reviews Molecular Cell Biology, 2012, 13, 591-600.	16.1	788
186	Interstitial Fluid and Lymph Formation and Transport: Physiological Regulation and Roles in Inflammation and Cancer. Physiological Reviews, 2012, 92, 1005-1060.	13.1	538

#	Article	IF	Citations
187	Mechanical compression drives cancer cells toward invasive phenotype. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 911-916.	3.3	507
188	The extracellular matrix: A dynamic niche in cancer progression. Journal of Cell Biology, 2012, 196, 395-406.	2.3	2,547
189	The impact of tumor microenvironment on cancer treatment and its modulation by direct and indirect antivascular strategies. Cancer and Metastasis Reviews, 2012, 31, 823-842.	2.7	59
190	Evaluation of Tumor Stiffness by Elastography Is Predictive for Pathologic Complete Response to Neoadjuvant Chemotherapy in Patients with Breast Cancer. Annals of Surgical Oncology, 2012, 19, 3042-3049.	0.7	92
191	Stretching Mechanotransduction from the Lung to the Lab: Approaches and Physiological Relevance in Drug Discovery. Assay and Drug Development Technologies, 2012, 10, 137-147.	0.6	13
192	Preimplantation Stress and Development. Birth Defects Research Part C: Embryo Today Reviews, 2012, 96, 299-314.	3.6	44
193	Mechanical Stretching for Tissue Engineering: Two-Dimensional and Three-Dimensional Constructs. Tissue Engineering - Part B: Reviews, 2012, 18, 288-300.	2.5	170
194	The role of the myofibroblast in tumor stroma remodeling. Cell Adhesion and Migration, 2012, 6, 203-219.	1.1	202
195	Characterization of tissue biomechanics and mechanical signaling in uterine leiomyoma. Matrix Biology, 2012, 31, 57-65.	1.5	83
196	AFM nano-mechanics and calcium dynamics of prostate cancer cells with distinct metastatic potential. Biochimica Et Biophysica Acta - General Subjects, 2012, 1820, 1111-1120.	1.1	76
197	Mast cells promote the growth of Hodgkin's lymphoma cell tumor by modifying the tumor microenvironment that can be perturbed by bortezomib. Leukemia, 2012, 26, 2269-2276.	3.3	36
198	The nanomechanical signature of breast cancer. Nature Nanotechnology, 2012, 7, 757-765.	15.6	863
199	Forcing Stem Cells to Behave: A Biophysical Perspective of the Cellular Microenvironment. Annual Review of Biophysics, 2012, 41, 519-542.	4.5	367
200	Fibroproliferative Disorders and Their Mechanobiology. Connective Tissue Research, 2012, 53, 187-196.	1.1	79
201	New Insights into the Regulation of Epithelialâ€“Mesenchymal Transition and Tissue Fibrosis. International Review of Cell and Molecular Biology, 2012, 294, 171-221.	1.6	141
202	Matrix Rigidity Regulates Cancer Cell Growth by Modulating Cellular Metabolism and Protein Synthesis. PLoS ONE, 2012, 7, e37231.	1.1	65
203	Mechanosensitive Ca²⁺permeant cation channels in human prostate tumor cells. Channels, 2012, 6, 290-307.	1.5	26
204	Advances in experimental approaches for investigating cell aggregate mechanics. Acta Mechanica Solida Sinica, 2012, 25, 473-482.	1.0	11

#	Article	IF	Citations
205	Magnetically attachable stencils and the non-destructive analysis of the contribution made by the underlying matrix to cell migration. Biomaterials, 2012, 33, 8189-8203.	5.7	19
206	Recreating the tumor microenvironment in a bilayer, hyaluronic acid hydrogel construct for the growth of prostate cancer spheroids. Biomaterials, 2012, 33, 9049-9060.	5.7	117
207	Comparative profiling of miRNA expression of lung adenocarcinoma cells in two-dimensional and three-dimensional cultures. Gene, 2012, 511, 143-150.	1.0	18
208	Ultrasoft 100 nm Thick Zero Poissonâ€™s Ratio Film with 60% Reversible Compressibility. Nano Letters, 2012, 12, 2171-2175.	4.5	10
209	Mechanically induced deformation and strain dynamics in actin stress fibers. Communicative and Integrative Biology, 2012, 5, 627-630.	0.6	9
210	Stromal biomarkers in breast cancer development and progression. Clinical and Experimental Metastasis, 2012, 29, 663-672.	1.7	32
211	Atomic force microscopy imaging and mechanical properties measurement of red blood cells and aggressive cancer cells. Science China Life Sciences, 2012, 55, 968-973.	2.3	77
212	Noncontact measurement of elasticity for the detection of soft-tissue tumors using phase-sensitive optical coherence tomography combined with a focused air-puff system. Optics Letters, 2012, 37, 5184.	1.7	95
213	Inhibition of Mammary Tumor Growth Using Lysyl Oxidase-Targeting Nanoparticles to Modify Extracellular Matrix. Nano Letters, 2012, 12, 3213-3217.	4.5	97
214	Isotropic stress reduces cell proliferation in tumor spheroids. New Journal of Physics, 2012, 14, 055008.	1.2	84
215	Keratin 8/18 Regulation of Cell Stiffness-Extracellular Matrix Interplay through Modulation of Rho-Mediated Actin Cytoskeleton Dynamics. PLoS ONE, 2012, 7, e38780.	1.1	65
216	Integrating Macrophages into Organotypic Co-Cultures: A 3D In Vitro Model to Study Tumor-Associated Macrophages. PLoS ONE, 2012, 7, e40058.	1.1	96
217	Controlled Breast Cancer Microarrays for the Deconvolution of Cellular Multilayering and Density Effects upon Drug Responses. PLoS ONE, 2012, 7, e40141.	1.1	25
218	The Mechanics of Metastasis: Insights from a Computational Model. PLoS ONE, 2012, 7, e44281.	1.1	24
219	Emergence of HGF/SF-Induced Coordinated Cellular Motility. PLoS ONE, 2012, 7, e44671.	1.1	29
220	Integrative physical oncology. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2012, 4, 1-14.	6.6	29
221	The rationale for targeting the LOX family in cancer. Nature Reviews Cancer, 2012, 12, 540-552.	12.8	464
222	Stromal Interactions as Regulators of Tumor Growth and Therapeutic Response: A Potential Target for Photodynamic Therapy?. Israel Journal of Chemistry, 2012, 52, 757-766.	1.0	19

#	Article	IF	Citations
223	Microenvironmental Control of the Breast Cancer Cell Cycle. Anatomical Record, 2012, 295, 553-562.	0.8	15
224	Biochemical and mechanical extracellular matrix properties dictate mammary epithelial cell motility and assembly. Biotechnology Journal, 2012, 7, 397-408.	1.8	44
225	Implanted adipose progenitor cells as physicochemical regulators of breast cancer. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9786-9791.	3.3	134
226	Tracking mechanics and volume of globular cells with atomic force microscopy using a constant-height clamp. Nature Protocols, 2012, 7, 143-154.	5.5	45
227	Investigating Metalloproteinases MMP-2 and MMP-9 Mechanosensitivity to Feedback Loops Involved in the Regulation of In Vitro Angiogenesis by Endogenous Mechanical Stresses. Acta Biotheoretica, 2012, 60, 21-40.	0.7	12
228	The nuclear envelope environment and its cancer connections. Nature Reviews Cancer, 2012, 12, 196-209.	12.8	292
229	Biophysical control of invasive tumor cell behavior by extracellular matrix microarchitecture. Biomaterials, 2012, 33, 4157-4165.	5.7	159
230	The effect of source animal age upon the inÂvivo remodeling characteristics of an extracellular matrix scaffold. Biomaterials, 2012, 33, 5524-5533.	5.7	109
231	Tuning liver stiffness against tumours: An in vitro study using entrapped cells in tumour-like microcapsules. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 9, 113-121.	1.5	27
232	A role for microtubules in endothelial cell protrusion in threeâ€dimensional matrices. Biology of the Cell, 2012, 104, 271-286.	0.7	11
233	The RhoAâ€Rokâ€myosin II pathway is involved in extracellular matrixâ€mediated regulation of prolactin signaling in mammary epithelial cells. Journal of Cellular Physiology, 2012, 227, 1553-1560.	2.0	11
234	Mammographic density as a predictor of breast cancer survival: the Multiethnic Cohort. Breast Cancer Research, 2013, 15, R7.	2.2	56
235	Comparison of Shear-Wave and Strain Ultrasound Elastography in the Differentiation of Benign and Malignant Breast Lesions. American Journal of Roentgenology, 2013, 201, W347-W356.	1.0	154
236	The role of engineering approaches in analysing cancer invasion and metastasis. Nature Reviews Cancer, 2013, 13, 596-603.	12.8	53
237	Mechanical cues in cellular signalling and communication. Cell and Tissue Research, 2013, 352, 77-94.	1.5	68
238	Stiffness of tumours measured by shear-wave elastography correlated with subtypes of breast cancer. European Radiology, 2013, 23, 2450-2458.	2.3	143
239	A Mechanical Checkpoint Controls Multicellular Growth through YAP/TAZ Regulation by Actin-Processing Factors. Cell, 2013, 154, 1047-1059.	13.5	1,278
240	Role of Collagen Matrix in Tumor Angiogenesis and Glioblastoma Multiforme Progression. American Journal of Pathology, 2013, 183, 1293-1305.	1.9	143

#	Article	IF	Citations
241	Glycosaminoglycans are functional ligands for receptor for advanced glycation endâ€products in tumors. FEBS Journal, 2013, 280, 2462-2470.	2.2	57
242	Biological Water Dynamics and Entropy: A Biophysical Origin of Cancer and Other Diseases. Entropy, 2013, 15, 3822-3876.	1.1	46
244	Cell and Molecular Biology of Breast Cancer. , 2013, , .		10
245	Regulation of the Hippo pathway and implications for anticancer drug development. Trends in Pharmacological Sciences, 2013, 34, 581-589.	4.0	100
246	Integrins in mechanotransduction. Current Opinion in Cell Biology, 2013, 25, 613-618.	2.6	270
247	Cells Actively Stiffen Fibrin Networks by Generating Contractile Stress. Biophysical Journal, 2013, 105, 2240-2251.	0.2	146
248	Tumor interstitial fluid â€" A treasure trove of cancer biomarkers. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 2259-2270.	1.1	64
249	Perspective: Flicking with flow: Can microfluidics revolutionize the cancer research?. Biomicrofluidics, 2013, 7, 011811.	1.2	16
250	Three dimensional multiphoton imaging of fresh and whole mount developing mouse mammary glands. BMC Cancer, 2013, 13, 373.	1.1	11
251	Mechano-transduction in tumour growth modelling. European Physical Journal E, 2013, 36, 23.	0.7	23
252	Fibroblast morphogenesis on 3D collagen matrices: The balance between cell clustering and cell migration. Experimental Cell Research, 2013, 319, 2440-2446.	1.2	35
253	Development of 3D Microfluidic Device to Study Endothelial-to-Mesenchymal Transformation. , 2013, , .		0
254	Longitudinal Changes in IGF-I and IGFBP-3, and Mammographic Density among Postmenopausal Women. Cancer Epidemiology Biomarkers and Prevention, 2013, 22, 2116-2120.	1.1	6
255	Unraveling the 'TGF-Î² paradox' one metastamir at a time. Breast Cancer Research, 2013, 15, 305.	2.2	5
256	SILAC-Based Proteomics of Human Primary Endothelial Cell Morphogenesis Unveils Tumor Angiogenic Markers. Molecular and Cellular Proteomics, 2013, 12, 3599-3611.	2.5	55
257	Th-MYCN Mice with Caspase-8 Deficiency Develop Advanced Neuroblastoma with Bone Marrow Metastasis. Cancer Research, 2013, 73, 4086-4097.	0.4	57
258	Finding an optimum immuno-histochemical feature set to distinguish benign phyllodes from fibroadenoma. Micron, 2013, 48, 34-41.	1.1	5
259	Cell Migration: Cooperation between Myosin II Isoforms in Durotaxis. Current Biology, 2013, 23, R28-R29.	1.8	6

#	Article	IF	Citations
260	Issues to be considered when studying cancer in vitro. Critical Reviews in Oncology/Hematology, 2013, 85, 95-111.	2.0	14
261	Molecular Pathways: YAP and TAZ Take Center Stage in Organ Growth and Tumorigenesis. Clinical Cancer Research, 2013, 19, 4925-4930.	3.2	135
262	Physical limits of cell migration: Control by ECM space and nuclear deformation and tuning by proteolysis and traction force. Journal of Cell Biology, 2013, 201, 1069-1084.	2.3	1,123
263	The antagonistic roles of PDGF and integrin Î±vÎ²3 in regulating ROS production at focal adhesions. Biomaterials, 2013, 34, 3807-3815.	5.7	18
264	Substrate stiffness regulates temporary NF-ÎºB activation via actomyosin contractions. Experimental Cell Research, 2013, 319, 2916-2927.	1.2	53
265	MT1-MMP prevents growth inhibition by three dimensional fibronectin matrix. Biochemical and Biophysical Research Communications, 2013, 436, 503-508.	1.0	7
266	The Hippo pathway and human cancer. Nature Reviews Cancer, 2013, 13, 246-257.	12.8	1,479
267	Theoretical aspects of Systems Biology. Progress in Biophysics and Molecular Biology, 2013, 112, 33-43.	1.4	76
268	Positive and negative influence of the matrix architecture on antitumor immune surveillance. Cellular and Molecular Life Sciences, 2013, 70, 4431-4448.	2.4	83
269	Regulation of adipose oestrogen output by mechanical stress. Nature Communications, 2013, 4, 1821.	5.8	31
270	Mechanotransduction and YAP-dependent matrix remodelling is required for the generation and maintenance of cancer-associated fibroblasts. Nature Cell Biology, 2013, 15, 637-646.	4.6	1,088
271	Î²1- and Î±v-class integrins cooperate to regulate myosinÂII during rigidity sensing of fibronectin-based microenvironments. Nature Cell Biology, 2013, 15, 625-636.	4.6	386
272	Bringing balance by force: live cell extrusion controls epithelial cell numbers. Trends in Cell Biology, 2013, 23, 185-192.	3.6	95
273	Elucidating mechanical transition effects of invading cancer cells with a subnucleus-scaled microfluidic serial dimensional modulation device. Lab on A Chip, 2013, 13, 340-348.	3.1	89
275	Dynamic analysis of lung metastasis by mouse osteosarcoma LM8: VEGF is a candidate for anti-metastasis therapy. Clinical and Experimental Metastasis, 2013, 30, 369-379.	1.7	36
276	Matrix mechanics and regulation of the fibroblast phenotype. Periodontology 2000, 2013, 63, 14-28.	6.3	67
277	Elastin turnover in malignant solid tumors. Connective Tissue Research, 2013, 54, 314-319.	1.1	4
278	Molecular Tension Sensors Report Forces Generated by Single Integrin Molecules in Living Cells. Nano Letters, 2013, 13, 3985-3989.	4.5	192

#	Article	IF	Citations
279	Probing the compressibility of tumor cell nuclei by combined atomic forceâ€“confocal microscopy. Physical Biology, 2013, 10, 065002.	0.8	120
280	Combining a focused air-puff system with phase-sensitive optical coherence tomography for the detection of soft-tissue tumors based on elasticity measurement. , 2013, , .		0
281	Pheromone-Induced Morphogenesis Improves Osmoadaptation Capacity by Activating the HOG MAPK Pathway. Science Signaling, 2013, 6, ra26.	1.6	44
282	Interstitial Flow in a 3D Microenvironment Increases Glioma Invasion by a CXCR4-Dependent Mechanism. Cancer Research, 2013, 73, 1536-1546.	0.4	149
283	Determining the Role of Matrix Compliance in the Differentiation of Mammary Stem Cells. Methods in Molecular Biology, 2013, 1202, 79-94.	0.4	0
284	Effects of Multiwalled Carbon Nanotube Reinforced Collagen Scaffolds on the Osteogenic Differentiation of Mesenchymal Stem Cells. Journal of Nanomaterials, 2013, 2013, 1-8.	1.5	7
285	Computational and Experimental Models of Cancer Cell Response to Fluid Shear Stress. Frontiers in Oncology, 2013, 3, 44.	1.3	158
286	The Conserved ADAMTS-like Protein Lonely heart Mediates Matrix Formation and Cardiac Tissue Integrity. PLoS Genetics, 2013, 9, e1003616.	1.5	48
287	Relationship of Mammographic Density and Gene Expression: Analysis of Normal Breast Tissue Surrounding Breast Cancer. Clinical Cancer Research, 2013, 19, 4972-4982.	3.2	51
288	LOX-Mediated Collagen Crosslinking Is Responsible for Fibrosis-Enhanced Metastasis. Cancer Research, 2013, 73, 1721-1732.	0.4	436
289	Regulation of YAP and TAZ by Epithelial Plasticity. , 2013, , 89-113.		1
290	Topographical guidance of 3D tumor cell migration at an interface of collagen densities. Physical Biology, 2013, 10, 065004.	0.8	40
291	Cell Matrix Remodeling Ability Shown by Image Spatial Correlation. Journal of Biophysics, 2013, 2013, 1-8.	0.8	10
292	Mechanical regulation of epigenetics in vascular biology and pathobiology. Journal of Cellular and Molecular Medicine, 2013, 17, 437-448.	1.6	75
293	microRNA-mediated regulation of the tumor microenvironment. Cell Cycle, 2013, 12, 3262-3271.	1.3	117
294	Influence of radiotherapy for the first tumor on aggressiveness of contralateral breast cancer. International Journal of Cancer, 2013, 132, 2388-2394.	2.3	1
295	Realistic biomechanical model of a cancerous breast for the registration of prone to supine deformations. , 2013, 2013, 7249-52.		2
296	Migration speed and directionality switch of normal epithelial cells after TGF-Î²1-induced EMT (tEMT) on micro-structured polydimethylsiloxane (PDMS) substrates with variations in stiffness and topographic patterning. Cell Communication and Adhesion, 2013, 20, 115-126.	1.0	19

#	Article	IF	Citations
297	Transglutaminse 2 and EGGL, the Protein Cross-Link Formed by Transglutaminse 2, As Therapeutic Targets for Disabilities of Old Age. Rejuvenation Research, 2013, 16, 495-517.	0.9	15
298	Mechanoregulation of the Myofibroblast in Wound Contraction, Scarring, and Fibrosis: Opportunities for New Therapeutic Intervention. Advances in Wound Care, 2013, 2, 122-141.	2.6	186
299	Cellular capsules as a tool for multicellular spheroid production and for investigating the mechanics of tumor progression in vitro. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14843-14848.	3.3	367
300	B Cell Activation Is Regulated by the Stiffness Properties of the Substrate Presenting the Antigens. Journal of Immunology, 2013, 190, 4661-4675.	0.4	100
301	Matrix Rigidity Activates Wnt Signaling through Down-regulation of Dickkopf-1 Protein. Journal of Biological Chemistry, 2013, 288, 141-151.	1.6	42
302	Stiff Collagen Matrices Increase Tumorigenic Prolactin Signaling in Breast Cancer Cells. Journal of Biological Chemistry, 2013, 288, 12722-12732.	1.6	112
303	A physical sciences network characterization of non-tumorigenic and metastatic cells. Scientific Reports, 2013, 3, 1449.	1.6	146
304	TGF-Î² Modulates Ovarian Cancer Invasion by Upregulating CAF-Derived Versican in the Tumor Microenvironment. Cancer Research, 2013, 73, 5016-5028.	0.4	315
305	A multiscale road map of cancer spheroids â€“ incorporating experimental and mathematical modelling to understand cancer progression. Journal of Cell Science, 2013, 126, 2761-71.	1.2	27
306	Targeted inactivation of Î²1 integrin induces Î²3 integrin switching, which drives breast cancer metastasis by TGF-Î². Molecular Biology of the Cell, 2013, 24, 3449-3459.	0.9	84
307	Mechanical control of epithelial lumen formation. Small GTPases, 2013, 4, 136-140.	0.7	18
308	Changes in cytoskeletal dynamics and nonlinear rheology with metastatic ability in cancer cell lines. Physical Biology, 2013, 10, 065001.	0.8	11
309	Quantitative mass spectrometryâ€based proteomics in angiogenesis. Proteomics - Clinical Applications, 2013, 7, 464-476.	0.8	4
310	Entering the Era of Nanoscience: Time to Be So Small Vuk UskokovÃ¢. Journal of Biomedical Nanotechnology, 2013, 9, 1441-1470.	0.5	74
311	Super-Resolution Track Density Imaging of Glioblastoma: Histopathologic Correlation. American Journal of Neuroradiology, 2013, 34, 1319-1325.	1.2	38
312	Modeling Tumorigenesis in Drosophila: Current Advances and Future Perspectives. , 0, , .		6
313	Monolayer Stress Microscopy: Limitations, Artifacts, and Accuracy of Recovered Intercellular Stresses. PLoS ONE, 2013, 8, e55172.	1.1	156
314	ECM-Dependent HIF Induction Directs Trophoblast Stem Cell Fate via LIMK1-Mediated Cytoskeletal Rearrangement. PLoS ONE, 2013, 8, e56949.	1.1	31

#	Article	IF	Citations
315	Effect of CD44 Binding Peptide Conjugated to an Engineered Inert Matrix on Maintenance of Breast Cancer Stem Cells and Tumorsphere Formation. PLoS ONE, 2013, 8, e59147.	1.1	35
316	Î±V-Integrins Are Required for Mechanotransduction in MDCK Epithelial Cells. PLoS ONE, 2013, 8, e71485.	1.1	22
317	Plasticity of Blood- and Lymphatic Endothelial Cells and Marker Identification. PLoS ONE, 2013, 8, e74293.	1.1	26
318	Integrin-Specific Control of Focal Adhesion Kinase and RhoA Regulates Membrane Protrusion and Invasion. PLoS ONE, 2013, 8, e74659.	1.1	45
319	Mechanical Stress Impairs Mitosis Progression in Multi-Cellular Tumor Spheroids. PLoS ONE, 2013, 8, e80447.	1.1	52
320	Bi-Directional Signaling: Extracellular Matrix and Integrin Regulation of Breast Tumor Progression. Critical Reviews in Eukaryotic Gene Expression, 2013, 23, 139-157.	0.4	54
321	Plausible Biomedical Consequences of Acupuncture Applied at Sites Characteristic of Acupoints in the Connective-Tissue-Interstitial-Fluid System. , 2013, , .		3
322	Interstitial fluid flow in cancer: implications for disease progression and treatment. Cancer Management and Research, 2014, 6, 317.	0.9	169
323	Stromal Fibroblasts Mediate Extracellular Matrix Remodeling and Invasion of Scirrhous Gastric Carcinoma Cells. PLoS ONE, 2014, 9, e85485.	1.1	43
324	Human Subperitoneal Fibroblast and Cancer Cell Interaction Creates Microenvironment That Enhances Tumor Progression and Metastasis. PLoS ONE, 2014, 9, e88018.	1.1	33
325	Rac2 Controls Tumor Growth, Metastasis and M1-M2 Macrophage Differentiation In Vivo. PLoS ONE, 2014, 9, e95893.	1.1	93
326	Epithelial Sheet Folding Induces Lumen Formation by Madin-Darby Canine Kidney Cells in a Collagen Gel. PLoS ONE, 2014, 9, e99655.	1.1	15
327	Evidence That Breast Tissue Stiffness Is Associated with Risk of Breast Cancer. PLoS ONE, 2014, 9, e100937.	1.1	127
328	Role of Constitutive Behavior and Tumor-Host Mechanical Interactions in the State of Stress and Growth of Solid Tumors. PLoS ONE, 2014, 9, e104717.	1.1	82
329	Advanced Cell Culture Techniques for Cancer Drug Discovery. Biology, 2014, 3, 345-367.	1.3	210
330	Networks as a Privileged Way to Develop Mesoscopic Level Approaches in Systems Biology. Systems, 2014, 2, 237-242.	1.2	10
331	Regulation of RhoA Activity by Adhesion Molecules and Mechanotransduction. Current Molecular Medicine, 2014, 14, 199-208.	0.6	101
332	Mini-Workshop: Mathematical Models for Cancer Cell Migration. Oberwolfach Reports, 2014, 11, 1075-1109.	0.0	0

#	Article	IF	Citations
333	Increased hydrostatic pressure enhances motility of lung cancer cells. , 2014, 2014, 2928-31.		6
334	Traversing the basement membrane in vivo: A diversity of strategies. Journal of Cell Biology, 2014, 204, 291-302.	2.3	157
335	Matrix production and remodeling as therapeutic targets for uterine leiomyoma. Journal of Cell Communication and Signaling, 2014, 8, 179-194.	1.8	20
336	Breast cancer stromal elastosis is associated with mammography screening detection, low Ki67 expression and favourable prognosis in a population-based study. Diagnostic Pathology, 2014, 9, 230.	0.9	21
337	Discoidin domain receptor 2 (<scp>DDR2</scp>) promotes breast cancer cell metastasis and the mechanism implicates epithelialâ€“mesenchymal transition programme under hypoxia. Journal of Pathology, 2014, 234, 526-537.	2.1	70
338	microRNAs in the tumor microenvironment: solving the riddle for a better diagnostics. Expert Review of Molecular Diagnostics, 2014, 14, 565-574.	1.5	47
339	The on-off relationship of Rho and Rac during integrin-mediated adhesion and cell migration. Small GTPases, 2014, 5, e27958.	0.7	245
340	Force and the spindle: Mechanical cues in mitotic spindle orientation. Seminars in Cell and Developmental Biology, 2014, 34, 133-139.	2.3	48
341	The Extracellular Matrix Contributes to Mechanotransduction in Uterine Fibroids. Obstetrics and Gynecology International, 2014, 2014, 1-12.	0.5	73
342	Cancer Microenvironments as Therapeutic Targets. , 2014, , 412-422.		0
343	Modeling Tumor Microenvironments In Vitro. Journal of Biomechanical Engineering, 2014, 136, 021011.	0.6	56
344	Emerging Understanding of Multiscale Tumor Heterogeneity. Frontiers in Oncology, 2014, 4, 366.	1.3	90
345	The Use of Second Harmonic Generation to Image the Extracellular Matrix During Tumor Progression. Intravital, 2014, 3, e984509.	2.0	20
346	Optical coherence micro-elastography: mechanical-contrast imaging of tissue microstructure. Biomedical Optics Express, 2014, 5, 2113.	1.5	132
347	Uniform and scalable light-sheets generated by extended focusing. Optics Express, 2014, 22, 26141.	1.7	53
348	Rho-actin signaling to the MRTF coactivators dominates the immediate transcriptional response to serum in fibroblasts. Genes and Development, 2014, 28, 943-958.	2.7	297
349	Research progress in quantifying the mechanical properties of single living cells using atomic force microscopy. Science Bulletin, 2014, 59, 4020-4029.	1.7	20
350	Control of macrophage 3D migration: a therapeutic challenge to limit tissue infiltration. Immunological Reviews, 2014, 262, 216-231.	2.8	52

#	Article	IF	Citations
351	The wound healing, chronic fibrosis, and cancer progression triad. Physiological Genomics, 2014, 46, 223-244.	1.0	189
352	Prostaglandin E₂â€Dependent Blockade of Actomyosin and Stress Fibre Formation Is Mediated Through S1379 Phosphorylation of ROCK2. Journal of Cellular Biochemistry, 2014, 115, 1516-1527.	1.2	6
353	Effects of Tamoxifen and oestrogen on histology and radiographic density in high and low mammographic density human breast tissues maintained in murine tissue engineering chambers. Breast Cancer Research and Treatment, 2014, 148, 303-314.	1.1	20
354	Fibroblasts probe substrate rigidity with filopodia extensions before occupying an area. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17176-17181.	3.3	124
355	3D Traction Stresses Activate Protease-Dependent Invasion of Cancer Cells. Biophysical Journal, 2014, 107, 2528-2537.	0.2	77
356	TGF-Î² regulates LARG and GEF-H1 during EMT to affect stiffening response to force and cell invasion. Molecular Biology of the Cell, 2014, 25, 3528-3540.	0.9	53
357	The microenvironment matters. Molecular Biology of the Cell, 2014, 25, 3254-3258.	0.9	5
358	A Stiffness-Mediated Oncogenic Hammer. Science Translational Medicine, 2014, 6, 237fs21.	5.8	1
359	Biophysical regulation of hematopoietic stem cells. Biomaterials Science, 2014, 2, 1548-1561.	2.6	37
360	Stress distributions and cell flows in a growing cell aggregate. Interface Focus, 2014, 4, 20140033.	1.5	49
361	Three-Dimensional Microfluidic Collagen Hydrogels for Investigating Flow-Mediated Tumor-Endothelial Signaling and Vascular Organization. Tissue Engineering - Part C: Methods, 2014, 20, 64-75.	1.1	115
362	Podosomes in space. Cell Adhesion and Migration, 2014, 8, 179-191.	1.1	108
363	A FAK-Cas-Rac-Lamellipodin Signaling Module Transduces Extracellular Matrix Stiffness into Mechanosensitive Cell Cycling. Science Signaling, 2014, 7, ra57.	1.6	171
364	Scaffold biomaterials for nano-pathophysiology. Advanced Drug Delivery Reviews, 2014, 74, 104-114.	6.6	12
365	The role of mechanical tension on lipid raft dependent PDGF-induced TRPC6 activation. Biomaterials, 2014, 35, 2868-2877.	5.7	24
366	Integrin activation and internalization mediated by extracellular matrix elasticity: A biomechanical model. Journal of Biomechanics, 2014, 47, 1479-1484.	0.9	31
367	Increasing matrix stiffness upregulates vascular endothelial growth factor expression in hepatocellular carcinoma cells mediated by integrin Î²1. Biochemical and Biophysical Research Communications, 2014, 444, 427-432.	1.0	87
368	Myosin II in mechanotransduction: master and commander of cell migration, morphogenesis, and cancer. Cellular and Molecular Life Sciences, 2014, 71, 479-492.	2.4	101

#	Article	IF	Citations
369	Increased plasticity of the stiffness of melanoma cells correlates with their acquisition of metastatic properties. Nanomedicine: Nanotechnology, Biology, and Medicine, 2014, 10, 141-148.	1.7	83
370	Collagen as a double-edged sword in tumor progression. Tumor Biology, 2014, 35, 2871-2882.	0.8	444
371	Loss of p53 Enhances NF-Î¹ºB-Dependent Lamellipodia Formation. Journal of Cellular Physiology, 2014, 229, 696-704.	2.0	30
372	ECM stiffness paves the way for tumor cells. Nature Medicine, 2014, 20, 332-333.	15.2	99
373	Modeling the tumor extracellular matrix: Tissue engineering tools repurposed towards new frontiers in cancer biology. Journal of Biomechanics, 2014, 47, 1969-1978.	0.9	76
374	Alterations in mechanical properties are associated with prostate cancer progression. Medical Oncology, 2014, 31, 876.	1.2	13
375	Integrated Micro/Nanoengineered Functional Biomaterials for Cell Mechanics and Mechanobiology: A Materials Perspective. Advanced Materials, 2014, 26, 1494-1533.	11.1	121
376	Modulation of matrix elasticity with PEG hydrogels to study melanoma drug responsiveness. Biomaterials, 2014, 35, 4310-4318.	5.7	57
377	In Vitro Analysis of Nanoparticulate Hydroxyapatite/Chitosan Composites as Potential Drug Delivery Platforms for the Sustained Release of Antibiotics in the Treatment of Osteomyelitis. Journal of Pharmaceutical Sciences, 2014, 103, 567-579.	1.6	79
378	Compliant 3D Microenvironment Improves Î²-Cell Cluster Insulin Expression Through Mechanosensing and Î²-Catenin Signaling. Tissue Engineering - Part A, 2014, 20, 1888-1895.	1.6	42
379	BMP growth factor signaling in a biomechanical context. BioFactors, 2014, 40, 171-187.	2.6	43
380	Cell jamming: Collective invasion of mesenchymal tumor cells imposed by tissue confinement. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 2386-2395.	1.1	260
381	A Review of Optical Coherence Elastography: Fundamentals, Techniques and Prospects. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 272-288.	1.9	249
382	In vitro models of tumor vessels and matrix: Engineering approaches to investigate transport limitations and drug delivery in cancer. Advanced Drug Delivery Reviews, 2014, 69-70, 205-216.	6.6	60
383	Mechanical phenotyping of breast cancer using MEMS: a method to demarcate benign and cancerous breast tissues. Lab on A Chip, 2014, 14, 4523-4532.	3.1	23
384	Mammographic Density Phenotypes and Risk of Breast Cancer: A Meta-analysis. Journal of the National Cancer Institute, 2014, 106, .	3.0	261
385	Combining AFM and Acoustic Probes to Reveal Changes in the Elastic Stiffness Tensor of Living Cells. Biophysical Journal, 2014, 107, 1502-1512.	0.2	40
386	Extracellular matrix sub-types and mechanical stretch impact human cardiac fibroblast responses to transforming growth factor beta. Connective Tissue Research, 2014, 55, 248-256.	1.1	21

#	Article	IF	Citations
387	Physical Biology in Cancer. 5. The rocky road of metastasis: the role of cytoskeletal mechanics in cell migratory response to 3D matrix topography. American Journal of Physiology - Cell Physiology, 2014, 306, C110-C120.	2.1	32
388	Cytoskeletal Tension Inhibits Hippo Signaling through an Ajuba-Warts Complex. Cell, 2014, 158, 143-156.	13.5	306
389	The Role of Mechanical Forces in Tumor Growth and Therapy. Annual Review of Biomedical Engineering, 2014, 16, 321-346.	5.7	742
390	CD98hc (SLC3A2) Loss Protects Against Ras-Driven Tumorigenesis by Modulating Integrin-Mediated Mechanotransduction. Cancer Research, 2014, 74, 6878-6889.	0.4	54
391	Breast Density and Breast Cancer Risk: Understanding of Biology and Risk. Current Epidemiology Reports, 2014, 1, 120-129.	1.1	6
392	A mechanically-induced colon cancer cell population shows increased metastatic potential. Molecular Cancer, 2014, 13, 131.	7.9	65
393	Sensing the local environment: actin architecture and Hippo signalling. Current Opinion in Cell Biology, 2014, 31, 74-83.	2.6	143
394	Mechanical Signaling in Reproductive Tissues: Mechanisms and Importance. Reproductive Sciences, 2014, 21, 1093-1107.	1.1	44
395	Engineered microenvironments provide new insights into ovarian and prostate cancer progression and drug responses. Advanced Drug Delivery Reviews, 2014, 79-80, 193-213.	6.6	45
396	Biological Regulation of Bone Quality. Current Osteoporosis Reports, 2014, 12, 366-375.	1.5	70
397	Integrins in development and cancer. Biophysical Reviews, 2014, 6, 191-202.	1.5	14
398	Validation of the effects of TGF-Î²1 on tumor recurrence and prognosis through tumor retrieval and cell mechanical properties. Cancer Cell International, 2014, 14, 20.	1.8	9
399	Human airway smooth muscle maintain in situ cell orientation and phenotype when cultured on aligned electrospun scaffolds. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2014, 307, L38-L47.	1.3	20
400	Pushing tumor cells towards a malignant phenotype: Stimuli from the microenvironment, intercellular communications and alternative roads. International Journal of Cancer, 2014, 135, 1265-1276.	2.3	51
401	Microdevice arrays of high aspect ratio poly(dimethylsiloxane) pillars for the investigation of multicellular tumour spheroid mechanical properties. Lab on A Chip, 2014, 14, 2344-2353.	3.1	18
402	Role of extracellular matrix and YAP/TAZ in cell fate determination. Cellular Signalling, 2014, 26, 186-191.	1.7	72
403	Carcinoma-associated fibroblasts provide operational flexibility in metastasis. Seminars in Cancer Biology, 2014, 25, 33-46.	4.3	111
404	Cellular traction stresses mediate extracellular matrix degradation by invadopodia. Acta Biomaterialia, 2014, 10, 1886-1896.	4.1	67

#	Article	IF	Citations
405	Tumor Microenvironment and Metabolism in Prostate Cancer. Seminars in Oncology, 2014, 41, 267-280.	0.8	58
406	Phage-based nanomaterials for biomedical applications. Acta Biomaterialia, 2014, 10, 1741-1750.	4.1	48
407	Corneal Viscoelastic Properties from Finite-Element Analysis of In Vivo Air-Puff Deformation. PLoS ONE, 2014, 9, e104904.	1.1	92
408	Longitudinal Measurement of Extracellular Matrix Rigidity in 3D Tumor Models Using Particle-tracking Microrheology. Journal of Visualized Experiments, 2014, , .	0.2	11
409	Mechanotransduction in intervertebral discs. Journal of Cellular and Molecular Medicine, 2014, 18, 2351-2360.	1.6	9
411	Interstitial Fluid Flow Mechanosensing: Mechanisms and Consequences. , 2015, , 145-172.		0
412	Mechanical Properties of Cytoskeletal Structures and Their Response to Externally Applied Forces. , 2015, , 173-194.		0
413	Stirred suspension bioreactors as a novel method to enrich germ cells from pre-pubertal pig testis. Andrology, 2015, 3, 590-597.	1.9	12
414	A YAP/TAZ-miR-130/301 molecular circuit exerts systems-level control of fibrosis in a network of human diseases and physiologic conditions. Scientific Reports, 2015, 5, 18277.	1.6	58
415	Yes-associated protein regulates the growth of human non-small cell lung cancer in response to matrix stiffness. Molecular Medicine Reports, 2015, 11, 4267-4272.	1.1	26
417	Macroscopic Stiffness of Breast Tumors Predicts Metastasis. Scientific Reports, 2014, 4, 5512.	1.6	144
418	Polyacrylamide Gels for Invadopodia and Traction Force Assays on Cancer Cells. Journal of Visualized Experiments, 2015, , 52343.	0.2	7
419	Mesenchymal Stem Cells Induce Directional Migration of Invasive Breast Cancer Cells through TGF-Î². Scientific Reports, 2015, 5, 16941.	1.6	74
420	Mimicking biophysical stimuli within bone tumor microenvironment. , 2015, 2015, 3561-4.		6
421	Fibroblast viability and phenotypic changes within glycated stiffened three-dimensional collagen matrices. Respiratory Research, 2015, 16, 82.	1.4	51
422	Threeâ€Dimensional in Vitro Model to Study Osteobiology and Osteopathology. Journal of Cellular Biochemistry, 2015, 116, 2715-2723.	1.2	16
423	Stromal-epithelial responses to fractionated radiotherapy in a breast cancer microenvironment. Cancer Cell International, 2015, 15, 67.	1.8	10
424	Tumorâ€induced solid stress activates Î²â€catenin signaling to drive malignant behavior in normal, tumorâ€adjacent cells. BioEssays, 2015, 37, 1293-1297.	1.2	10

#	Article	IF	Citations
425	Mechanical Responses of Cancer Cells on Nanoscaffolds for Adhesion Size Control. Macromolecular Bioscience, 2015, 15, 851-860.	2.1	7
426	Associations Between Elastography Findings and Clinicopathological Factors in Breast Cancer. Medicine (United States), 2015, 94, e2290.	0.4	18
427	A mechanical model for guided motion of mammalian cells. Europhysics Letters, 2015, 112, 58002.	0.7	0
428	A Universal and Facile Approach for the Formation of a Protein Hydrogel for 3D Cell Encapsulation. Advanced Functional Materials, 2015, 25, 6189-6198.	7.8	21
429	Convergent Science Physical Oncology. Convergent Science Physical Oncology, 2015, 1, 010201.	2.6	0
430	The National Cancer Instituteâ€™s Efforts in Promoting Research in the Tumor Microenvironment. Cancer Journal (Sudbury, Mass), 2015, 21, 263-266.	1.0	1
431	Vimentin contributes to epithelial-mesenchymal transition cancer cell mechanics by mediating cytoskeletal organization and focal adhesion maturation. Oncotarget, 2015, 6, 15966-15983.	0.8	395
432	Emerging Roles of Focal Adhesion Kinase in Cancer. BioMed Research International, 2015, 2015, 1-13.	0.9	172
433	Prolactin Promotes Breast Cancer Cell Migration through Actin Cytoskeleton Remodeling. Frontiers in Endocrinology, 2015, 6, 186.	1.5	26
434	Characterization of Dynamic Behaviour of MCF7 and MCF10A Cells in Ultrasonic Field Using Modal and Harmonic Analyses. PLoS ONE, 2015, 10, e0134999.	1.1	50
435	The Acinar Cage: Basement Membranes Determine Molecule Exchange and Mechanical Stability of Human Breast Cell Acini. PLoS ONE, 2015, 10, e0145174.	1.1	33
436	Stretchable micropost array cytometry: a powerful tool for cell mechanics and mechanobiology research. , 0, , 32-46.		0
437	Decreasing matrix modulus of PEG hydrogels induces a vascular phenotype in human cord blood stem cells. Biomaterials, 2015, 62, 24-34.	5.7	20
438	Tissue homeostasis: A tensile state. Europhysics Letters, 2015, 109, 58005.	0.7	19
439	A molecular ruler regulates cytoskeletal remodelling by the Rho kinases. Nature Communications, 2015, 6, 10029.	5.8	58
440	Current and future methods for measuring breast density: a brief comparative review. Breast Cancer Management, 2015, 4, 209-221.	0.2	24
441	Fibronectin fibrillogenesis facilitates mechano-dependent cell spreading, force generation, and nuclear size in human embryonic fibroblasts. Integrative Biology (United Kingdom), 2015, 7, 1454-1465.	0.6	31
442	Age-associated reduction of cell spreading induces mitochondrial DNA common deletion by oxidative stress in human skin dermal fibroblasts: implication for human skin connective tissue aging. Journal of Biomedical Science, 2015, 22, 62.	2.6	60

#	Article	IF	Citations
443	Two-dimensional gel electrophoresis analysis of the leiomyoma interstitial fluid reveals altered protein expression with a possible involvement in pathogenesis. Oncology Reports, 2015, 33, 2219-2226.	1.2	13
444	A Negative Regulatory Mechanism Involving 14-3-3Î¶ Limits Signaling Downstream of ROCK to Regulate Tissue Stiffness in Epidermal Homeostasis. Developmental Cell, 2015, 35, 759-774.	3.1	33
445	Syndecan-4 Promotes Epithelial Tumor Cells Spreading and Regulates the Turnover of PKCÎ± Activity under Mechanical Stimulation on the Elastomeric Substrates. Cellular Physiology and Biochemistry, 2015, 36, 1291-1304.	1.1	16
446	Tumor mechanics and metabolic dysfunction. Free Radical Biology and Medicine, 2015, 79, 269-280.	1.3	95
447	Epithelial polarity â€“ Generating and integrating signals from the ECM with integrins. Experimental Cell Research, 2015, 334, 337-349.	1.2	84
448	Cyclic mechanical strain induces TGFÎ²1-signalling in dermal fibroblasts embedded in a 3D collagen lattice. Archives of Dermatological Research, 2015, 307, 191-197.	1.1	10
449	Dynamic stiffening of poly(ethylene glycol)-based hydrogels to direct valvular interstitial cell phenotype in a three-dimensional environment. Biomaterials, 2015, 49, 47-56.	5.7	187
450	Hydrogel-based methods for engineering cellular microenvironment with spatiotemporal gradients. Critical Reviews in Biotechnology, 2016, 36, 1-13.	5.1	39
451	Piezo1 forms mechanosensitive ion channels in the human MCF-7 breast cancer cell line. Scientific Reports, 2015, 5, 8364.	1.6	122
452	Myoferlin depletion elevates focal adhesion kinase and paxillin phosphorylation and enhances cell-matrix adhesion in breast cancer cells. American Journal of Physiology - Cell Physiology, 2015, 308, C642-C649.	2.1	15
453	Biophysical properties of human breast cancer cells measured using silicon MEMS resonators and atomic force microscopy. Lab on A Chip, 2015, 15, 839-847.	3.1	68
454	The Stressful Life of Cardiac Myofibroblasts. , 2015, , 71-92.		1
455	Matrix cross-linkingâ€“mediated mechanotransduction promotes posttraumatic osteoarthritis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9424-9429.	3.3	82
456	Celebrating Soft Matter's 10th Anniversary: Cell division: a source of active stress in cellular monolayers. Soft Matter, 2015, 11, 7328-7336.	1.2	82
457	Interstitial flows promote amoeboid over mesenchymal motility of breast cancer cells revealed by a three dimensional microfluidic model. Integrative Biology (United Kingdom), 2015, 7, 1402-1411.	0.6	61
458	When 1 + 1 > 2: Nanostructured composites for hard tissue engineering applications. Materials Science and Engineering C, 2015, 57, 434-451.	3.8	39
459	Breast composition: Measurement and clinical use. Radiography, 2015, 21, 324-333.	1.1	32
460	Cardiac Fibrosis and Heart Failure: Cause or Effect?. , 2015, , .		4

#	Article	IF	Citations
461	Lung Extracellular Matrix and Fibroblast Function. Annals of the American Thoracic Society, 2015, 12, S30-S33.	1.5	145
462	Enhanced Adhesion of Stromal Cells to Invasive Cancer Cells Regulated by Cadherin 11. ACS Chemical Biology, 2015, 10, 1932-1938.	1.6	21
463	Inelastic mechanics: A unifying principle in biomechanics. Biochimica Et Biophysica Acta - Molecular Cell Research, 2015, 1853, 3025-3037.	1.9	24
464	A microengineered pathophysiological model of early-stage breast cancer. Lab on A Chip, 2015, 15, 3350-3357.	3.1	174
465	Simultaneous MEMS-based electro-mechanical phenotyping of breast cancer. Lab on A Chip, 2015, 15, 3695-3706.	3.1	16
466	The nanomechanical signature of liver cancer tissues and its molecular origin. Nanoscale, 2015, 7, 12998-13010.	2.8	75
467	Mammographic breast density: Predictive value for pathological response to neoadjuvant chemotherapy in breast cancer patients. Breast, 2015, 24, 576-581.	0.9	32
468	Stiffening and unfolding of early deposited-fibronectin increase proangiogenic factor secretion by breast cancer-associated stromal cells. Biomaterials, 2015, 54, 63-71.	5.7	67
469	Graphite Oxide to Graphene. Biomaterials to Bionics. Advanced Materials, 2015, 27, 7563-7582.	11.1	126
470	Controlled 3D culture in Matrigel microbeads to analyze clonal acinar development. Biomaterials, 2015, 52, 347-357.	5.7	66
471	Biomimicking of the Breast Tumor Microenvironment. Current Molecular Biology Reports, 2015, 1, 71-76.	0.8	2
472	Exploring the Biomechanical Properties of Brain Malignancies and Their Pathologic Determinants In Vivo with Magnetic Resonance Elastography. Cancer Research, 2015, 75, 1216-1224.	0.4	90
473	Matrix stiffness drives epithelialâ€“mesenchymal transition and tumour metastasis through a TWIST1â€“G3BP2 mechanotransduction pathway. Nature Cell Biology, 2015, 17, 678-688.	4.6	699
474	Tight junction protein claudin-6 inhibits growth and induces the apoptosis of cervical carcinoma cells in vitro and in vivo. Medical Oncology, 2015, 32, 148.	1.2	24
475	Probing the Biophysical Properties of Primary Breast Tumor-Derived Fibroblasts. Cellular and Molecular Bioengineering, 2015, 8, 76-85.	1.0	20
476	The hallmarks of cancer: relevance to the pathogenesis of polycystic kidney disease. Nature Reviews Nephrology, 2015, 11, 515-534.	4.1	115
477	Mechanical properties of normal versus cancerous breast cells. Biomechanics and Modeling in Mechanobiology, 2015, 14, 1335-1347.	1.4	23
478	Development by threeâ€dimensional approaches and fourâ€dimensional imaging: To the knowledge frontier and beyond. Birth Defects Research Part C: Embryo Today Reviews, 2015, 105, 1-8.	3.6	3

#	Article	IF	Citations
479	Fighting the force: Potential of homeobox genes for tumor microenvironment regulation. Biochimica Et Biophysica Acta: Reviews on Cancer, 2015, 1855, 248-253.	3.3	10
480	Topographical and mechanical characterization of living eukaryotic cells on opaque substrates: development of a general procedure and its application to the study of non-adherent lymphocytes. Physical Biology, 2015, 12, 026005.	0.8	4
481	Mechanical induction of the tumorigenic Î²-catenin pathway by tumour growth pressure. Nature, 2015, 523, 92-95.	13.7	288
482	Intravital Imaging Reveals How BRAF Inhibition Generates Drug-Tolerant Microenvironments with High Integrin Î²1/FAK Signaling. Cancer Cell, 2015, 27, 574-588.	7.7	485
483	Microenvironment, tumor cell plasticity, and cancer. Current Opinion in Oncology, 2015, 27, 64-70.	1.1	50
484	Rho Kinase Inhibitors Block Melanoma Cell Migration and Inhibit Metastasis. Cancer Research, 2015, 75, 2272-2284.	0.4	114
485	Visualizing the Interior Architecture of Focal Adhesions with High-Resolution Traction Maps. Nano Letters, 2015, 15, 2220-2228.	4.5	86
486	Silencing Î²3 Integrin by Targeted ECO/siRNA Nanoparticles Inhibits EMT and Metastasis of Triple-Negative Breast Cancer. Cancer Research, 2015, 75, 2316-2325.	0.4	135
487	Mechanotransduction's Impact on Animal Development, Evolution, and Tumorigenesis. Annual Review of Cell and Developmental Biology, 2015, 31, 373-397.	4.0	58
488	Molecular-Scale Tools for Studying Mechanotransduction. Annual Review of Biomedical Engineering, 2015, 17, 287-316.	5.7	24
489	The mechanical microenvironment in cancer: How physics affects tumours. Seminars in Cancer Biology, 2015, 35, 62-70.	4.3	107
490	Quantified ultrasound elastography in the assessment of cutaneous carcinoma. British Journal of Radiology, 2015, 88, 20150344.	1.0	29
491	Proteoglycans: Potential Agents in Mammographic Density and the Associated Breast Cancer Risk. Journal of Mammary Gland Biology and Neoplasia, 2015, 20, 121-131.	1.0	21
492	Tumor-extracellular matrix interactions: Identification of tools associated with breast cancer progression. Seminars in Cancer Biology, 2015, 35, 3-10.	4.3	120
493	Combined Use of Ultrasound Elastography and Bâ€Mode Sonography for Differentiation of Benign and Malignant Circumscribed Breast Masses. Journal of Ultrasound in Medicine, 2015, 34, 1951-1959.	0.8	10
494	The forces behind EMT and tumor metastasis. Cell Cycle, 2015, 14, 2387-2388.	1.3	33
495	Nonequilibrium Fluctuations in Biological Strands, Machines, and Cells. Journal of the Physical Society of Japan, 2015, 84, 102001.	0.7	15
496	Bioprinting Using Aqueous Two-Phase System. , 2015, , 165-178.		3

#	Article	IF	Citations
497	Multicellular Regulation of Tensional Homeostasis. Biophysical Journal, 2015, 108, 307a.	0.2	0
498	Deconvolution-free Subcellular Imaging with Axially Swept Light Sheet Microscopy. Biophysical Journal, 2015, 108, 2807-2815.	0.2	184
499	Conformational coupling of integrin and Thy-1 regulates Fyn priming and fibroblast mechanotransduction. Journal of Cell Biology, 2015, 211, 173-190.	2.3	78
500	The matrix protein Fibulin-5 is at the interface of tissue stiffness and inflammation in fibrosis. Nature Communications, 2015, 6, 8574.	5.8	64
501	Cell mixing induced by myc is required for competitive tissue invasion and destruction. Nature, 2015, 524, 476-480.	13.7	123
502	Tissue Stiffness Dictates Development, Homeostasis, and Disease Progression. Organogenesis, 2015, 11, 1-15.	0.4	483
503	Apolar and polar transitions drive the conversion between amoeboid and mesenchymal shapes in melanoma cells. Molecular Biology of the Cell, 2015, 26, 4163-4170.	0.9	25
504	The extracellular matrix and transforming growth factor-Î²1: Tale of a strained relationship. Matrix Biology, 2015, 47, 54-65.	1.5	453
505	Regulation of epithelial cell organization by tuning cellâ€“substrate adhesion. Integrative Biology (United Kingdom), 2015, 7, 1228-1241.	0.6	52
506	Mechanism of irradiationâ€induced mammary cancer metastasis: A role for SAPâ€dependent Mkl1 signaling. Molecular Oncology, 2015, 9, 1510-1527.	2.1	19
507	Mapping dynamic mechanical remodeling in 3D tumor models via particle tracking microrheology. , 2015, , .		0
508	Snail1-Expressing Fibroblasts in the Tumor Microenvironment Display Mechanical Properties That Support Metastasis. Cancer Research, 2015, 75, 284-295.	0.4	92
509	Fine Needle Elastography (FNE) device for biomechanically determining local variations of tissue mechanical properties. Journal of Biomechanics, 2015, 48, 81-88.	0.9	10
510	CD138-negative myeloma cells regulate mechanical properties of bone marrow stromal cells through SDF-1/CXCR4/AKT signaling pathway. Biochimica Et Biophysica Acta - Molecular Cell Research, 2015, 1853, 338-347.	1.9	17
511	Extracellular matrix elasticity and topography: Materialâ€based cues that affect cell function via conserved mechanisms. Journal of Biomedical Materials Research - Part A, 2015, 103, 1246-1258.	2.1	158
512	Distribution volumes of macromolecules in human ovarian and endometrial cancersâ€”effects of extracellular matrix structure. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 308, H18-H28.	1.5	14
514	Mechanical and Physical Regulation of Cell Behavior. , 2015, , 99-115.		2
515	P-selectin-mediated LOX expression promotes insulinoma growth in Rip1-Tag2 mice by increasing tissue stiffness. International Journal of Biological Sciences, 2016, 12, 1289-1297.	2.6	6

#	Article	IF	Citations
516	Changes in cellular mechanical properties during onset or progression of colorectal cancer. World Journal of Gastroenterology, 2016, 22, 7203.	1.4	55
517	Molecular Cues Guiding Matrix Stiffness in Liver Fibrosis. BioMed Research International, 2016, 2016, 1-11.	0.9	34
518	Lymphangiogenesis in Breast Cancer Correlates with Matrix Stiffness on Shear-Wave Elastography. Yonsei Medical Journal, 2016, 57, 599.	0.9	13
519	PEG-Chitosan Hydrogel with Tunable Stiffness for Study of Drug Response of Breast Cancer Cells. Polymers, 2016, 8, 112.	2.0	39
520	Correlating Tumor Stiffness with Immunohistochemical Subtypes of Breast Cancers: Prognostic Value of Comb-Push Ultrasound Shear Elastography for Differentiating Luminal Subtypes. PLoS ONE, 2016, 11, e0165003.	1.1	39
521	Tensile Forces Originating from Cancer Spheroids Facilitate Tumor Invasion. PLoS ONE, 2016, 11, e0156442.	1.1	76
522	Targeting Mechanotransduction at the Transcriptional Level: YAP and BRD4 Are Novel Therapeutic Targets for the Reversal of Liver Fibrosis. Frontiers in Pharmacology, 2016, 7, 462.	1.6	40
523	Mechanical Regulation and Maintenance of Organismal Homeostasis - Scientific Basis for Health Promotion by Physical Motility and Exercise. Juntendo Medical Journal, 2016, 62, 50-56.	0.1	0
524	Is Extracellular Matrix a Castle Against to Invasion of Cancer Cells?. , 0, , .		4
525	Eosinophilic Esophagitisâ€Associated Chemical and Mechanical Microenvironment Shapes Esophageal Fibroblast Behavior. Journal of Pediatric Gastroenterology and Nutrition, 2016, 63, 200-209.	0.9	29
526	Bioorthogonal Radiopaque Hydrogel for Endoscopic Delivery and Universal Tissue Marking. Advanced Healthcare Materials, 2016, 5, 421-426.	3.9	17
527	Development and characterization of a naturally derived lung extracellular matrix hydrogel. Journal of Biomedical Materials Research - Part A, 2016, 104, 1922-1935.	2.1	121
528	YAP/TAZ as therapeutic targets in cancer. Current Opinion in Pharmacology, 2016, 29, 26-33.	1.7	174
529	Extracellular matrix composition and rigidity regulate invasive behavior and response to PDT in 3D pancreatic tumor models. Proceedings of SPIE, 2016, , .	0.8	0
530	Î³â€Tocotrienol reversal of epithelialâ€toâ€mesenchymal transition in human breast cancer cells is associated with inhibition of canonical Wnt signalling. Cell Proliferation, 2016, 49, 460-470.	2.4	29
531	Tensional homeostasis in endothelial cells is a multicellular phenomenon. American Journal of Physiology - Cell Physiology, 2016, 311, C528-C535.	2.1	21
532	Nanoroughened adhesion-based capture of circulating tumor cells with heterogeneous expression and metastatic characteristics. BMC Cancer, 2016, 16, 614.	1.1	23
533	Extracellular matrix stiffness dictates Wnt expression through integrin pathway. Scientific Reports, 2016, 6, 20395.	1.6	155

#	Article	IF	Citations
534	Thermodynamically constrained averaging theory for cancer growth modelling * *Horizon 2020 MSCA grant agreement No 642295 www.melplex.eu. IFAC-PapersOnLine, 2016, 49, 289-294.	0.5	1
535	On residual stresses and homeostasis: an elastic theory of functional adaptation in living matter. Scientific Reports, 2016, 6, 24390.	1.6	33
536	Strategies of Mesenchymal Invasion of Patient-derived Brain Tumors: Microenvironmental Adaptation. Scientific Reports, 2016, 6, 24912.	1.6	62
537	Correlating confocal microscopy and atomic force indentation reveals metastatic cancer cells stiffen during invasion into collagen I matrices. Scientific Reports, 2016, 6, 19686.	1.6	123
538	Two-dimensional arrays of cell-laden polymer hydrogel modules. Biomicrofluidics, 2016, 10, 014110.	1.2	12
540	Extracellular Matrix Rigidity-dependent Sphingosine-1-phosphate Secretion Regulates Metastatic Cancer Cell Invasion and Adhesion. Scientific Reports, 2016, 6, 21564.	1.6	27
541	Substrate stiffness modulates mRNA expression profiling in breast cancer cells. Clinical Hemorheology and Microcirculation, 2016, 63, 399-410.	0.9	4
542	A 3D in vitro model to explore the inter-conversion between epithelial and mesenchymal states during EMT and its reversion. Scientific Reports, 2016, 6, 27072.	1.6	53
543	Monitoring the elasticity changes of HeLa cells during mitosis by atomic force microscopy. Proceedings of SPIE, 2016, , .	0.8	0
544	Portable, low-power diagnostics based on integrated photonics and responsive materials. Proceedings of SPIE, 2016, , .	0.8	0
546	Effect of polyclonal activators on cytokine production by blood cells and by malignant breast cancer cells. Doklady Biological Sciences, 2016, 466, 45-47.	0.2	2
547	Hyaluronan in cancer â€“ from the naked mole rat to nanoparticle therapy. Soft Matter, 2016, 12, 3841-3848.	1.2	30
548	Bone metastasis: the importance of the neighbourhood. Nature Reviews Cancer, 2016, 16, 373-386.	12.8	369
549	Diagonally Scanned Light-Sheet Microscopy for Fast Volumetric Imaging of Adherent Cells. Biophysical Journal, 2016, 110, 1456-1465.	0.2	50
550	Applying a radiomics approach to predict prognosis of lung cancer patients. Proceedings of SPIE, 2016, , .	0.8	2
551	Abnormal expression of leiomyoma cytoskeletal proteins involved in cell migration. Oncology Reports, 2016, 35, 3094-3100.	1.2	11
552	A model for coordinating nuclear mechanics and membrane remodeling to support nuclear integrity. Current Opinion in Cell Biology, 2016, 41, 9-17.	2.6	23
553	A toolbox to explore the mechanics of living embryonic tissues. Seminars in Cell and Developmental Biology, 2016, 55, 119-130.	2.3	112

#	Article	IF	Citations
554	CD44 alternative splicing in gastric cancer cells is regulated by culture dimensionality and matrix stiffness. Biomaterials, 2016, 98, 152-162.	5.7	34
555	Talin tension sensor reveals novel features of focal adhesion force transmission and mechanosensitivity. Journal of Cell Biology, 2016, 213, 371-383.	2.3	205
556	Review of optical breast imaging and spectroscopy. Journal of Biomedical Optics, 2016, 21, 091311.	1.4	131
557	Actin remodeling confers <scp>BRAF</scp> inhibitor resistance to melanoma cells through <scp>YAP</scp>/<scp>TAZ</scp> activation. EMBO Journal, 2016, 35, 462-478.	3.5	201
558	ElastografÃa en dermatologÃa. Actas Dermo-sifiliogrÃ¡ficas, 2016, 107, 652-660.	0.2	20
559	2-Deoxy glucose regulate MMP-9 in a SIRT-1Âdependent and NFkBÂindependent mechanism. Molecular and Cellular Biochemistry, 2016, 423, 197-206.	1.4	11
560	A Tensegrity Model of Cell Reorientation on Cyclically Stretched Substrates. Biophysical Journal, 2016, 111, 1478-1486.	0.2	65
561	The Physics of Living Systems. Undergraduate Lecture Notes in Physics, 2016, , .	0.1	9
562	Modulation of Matrix Softness and Interstitial Flow for 3D Cell Culture Using a Cell-Microenvironment-on-a-Chip System. ACS Biomaterials Science and Engineering, 2016, 2, 1968-1975.	2.6	13
563	Reengineering the Tumor Microenvironment to Alleviate Hypoxia and Overcome Cancer Heterogeneity. Cold Spring Harbor Perspectives in Medicine, 2016, 6, a027094.	2.9	119
564	Tissue Stiffness and Hypoxia Modulate the Integrin-Linked Kinase ILK to Control Breast Cancer Stem-like Cells. Cancer Research, 2016, 76, 5277-5287.	0.4	116
565	Visualizing mechanical modulation of nanoscale organization of cell-matrix adhesions. Integrative Biology (United Kingdom), 2016, 8, 795-804.	0.6	12
566	Shear-wave elasticity measurements of three-dimensional cell cultures for mechanobiology. Journal of Cell Science, 2016, 130, 292-302.	1.2	14
567	Nanoscale mechanics guides cellular decision making. Integrative Biology (United Kingdom), 2016, 8, 929-935.	0.6	20
568	Dense Breasts: What Do Our Patients Need to Be Told and Why?. Annals of Surgical Oncology, 2016, 23, 3119-3127.	0.7	3
569	Mechanosensing Controlled Directly by Tyrosine Kinases. Nano Letters, 2016, 16, 5951-5961.	4.5	74
570	Elastography in Dermatology. Actas Dermo-sifiliogrÃ¡ficas, 2016, 107, 652-660.	0.2	9
572	Vascular Endothelial Mechanosensors in Response to Fluid Shear Stress. , 2016, , 29-56.		2

#	Article	IF	Citations
573	Role of Rho GTPases in Mechanobiology. , 2016, , 97-117.		1
574	How to build a human. , 2016, , .		5
575	Reduction of fibroblast size/mechanical force downâ€regulates <scp>TGF</scp> â€Î² type <scp>II</scp> receptor: implications for human skin aging. Aging Cell, 2016, 15, 67-76.	3.0	84
576	Geometric control and modeling of genome reprogramming. Bioarchitecture, 2016, 6, 76-84.	1.5	15
577	Elasticity of a semiflexible filament with a discontinuous tension due to a cross-link or a molecular motor. Physical Review E, 2016, 93, 052408.	0.8	9
578	Targeting Programmed Cell Death Using Smallâ€Molecule Compounds to Improve Potential Cancer Therapy. Medicinal Research Reviews, 2016, 36, 983-1035.	5.0	136
579	Systems Biology of Tumor Microenvironment. Advances in Experimental Medicine and Biology, 2016, , .	0.8	7
580	The Materials of the Living. Undergraduate Lecture Notes in Physics, 2016, , 367-421.	0.1	0
581	Progress Towards Computational 3-D Multicellular Systems Biology. Advances in Experimental Medicine and Biology, 2016, 936, 225-246.	0.8	27
582	Mathematical Models of the Interaction of Cells and Cell Aggregates with the Extracellular Matrix. Lecture Notes in Mathematics, 2016, , 131-210.	0.1	3
583	Tissue-engineered 3D cancer-in-bone modeling: silk and PUR protocols. BoneKEy Reports, 2016, 5, 842.	2.7	16
584	Atomic force microscopy and graph analysis to study the P-cadherin/SFK mechanotransduction signalling in breast cancer cells. Nanoscale, 2016, 8, 19390-19401.	2.8	18
587	Mathematical Modeling of Morphogenesis in Living Materials. Lecture Notes in Mathematics, 2016, , 211-274.	0.1	0
588	Stiffness of pancreatic cancer cells is associated with increased invasive potential. Integrative Biology (United Kingdom), 2016, 8, 1232-1245.	0.6	89
589	Nano-mechanical signature of brain tumours. Nanoscale, 2016, 8, 19629-19643.	2.8	75
590	Differential response of patient-derived primary glioblastoma cells to environmental stiffness. Scientific Reports, 2016, 6, 23353.	1.6	68
591	Dynamic monitoring of cell mechanical properties using profile microindentation. Scientific Reports, 2016, 6, 21529.	1.6	32
592	Fibroblasts profiling in scarring trachoma identifies IL-6 as a functional component of a fibroblast-macrophage pro-fibrotic and pro-inflammatory feedback loop. Scientific Reports, 2016, 6, 28261.	1.6	27

#	Article	IF	Citations
593	Use of shear wave ultrasound vibrometry for detection of simulated esophageal malignancy inex vivoporcine esophagi. Biomedical Physics and Engineering Express, 2016, 2, 065002.	0.6	2
594	Biochemomechanical poroelastic theory of avascular tumor growth. Journal of the Mechanics and Physics of Solids, 2016, 94, 409-432.	2.3	61
595	Mechanical Control of Epithelial-to-Mesenchymal Transitions in Development and Cancer. Annual Review of Cell and Developmental Biology, 2016, 32, 527-554.	4.0	118
596	Molecular Radio-Oncology. Recent Results in Cancer Research, 2016, , .	1.8	1
597	Bioprinting the Cancer Microenvironment. ACS Biomaterials Science and Engineering, 2016, 2, 1710-1721.	2.6	194
598	Molecular Targeting of Integrins and Integrin-Associated Signaling Networks in Radiation Oncology. Recent Results in Cancer Research, 2016, 198, 89-106.	1.8	8
599	Effect of biomimetic shear stress on intracellular uptake and cell-killing efficiency of doxorubicin in a free and liposomal formulation. International Journal of Pharmaceutics, 2016, 510, 42-47.	2.6	11
600	Tuning stiffness of cell-laden hydrogel via hostâ€“guest interactions. Journal of Materials Chemistry B, 2016, 4, 4969-4974.	2.9	46
601	Early Evaluation of Relative Changes in Tumor Stiffness by Shear Wave Elastography Predicts the Response to Neoadjuvant Chemotherapy in Patients With Breast Cancer. Journal of Ultrasound in Medicine, 2016, 35, 1619-1627.	0.8	53
602	Raised mammographic density: causative mechanisms and biological consequences. Breast Cancer Research, 2016, 18, 45.	2.2	63
603	YAP/TAZ at the Roots of Cancer. Cancer Cell, 2016, 29, 783-803.	7.7	1,409
604	Recreating complex pathophysiologies in vitro with extracellular matrix surrogates for anticancer therapeutics screening. Drug Discovery Today, 2016, 21, 1521-1531.	3.2	28
605	Regulation of invadopodia by mechanical signaling. Experimental Cell Research, 2016, 343, 89-95.	1.2	61
606	The influence of the pre-metastatic niche on breast cancer metastasis. Cancer Letters, 2016, 380, 281-288.	3.2	45
607	Twist1-induced activation of human fibroblasts promotes matrix stiffness by upregulating palladin and collagen Î±1(VI). Oncogene, 2016, 35, 5224-5236.	2.6	58
608	Ultrahigh resolution optical coherence elastography using a Bessel beam for extended depth of field. , 2016, , .		0
609	Biomechanical properties of breast tissue, a state-of-the-art review. Biomechanics and Modeling in Mechanobiology, 2016, 15, 1307-1323.	1.4	86
610	Matrix rigidity differentially regulates invadopodia activity through ROCK1 and ROCK2. Biomaterials, 2016, 84, 119-129.	5.7	50

#	Article	IF	Citations
611	Cellular microenvironment controls the nuclear architecture of breast epithelia through Î²1-integrin. Cell Cycle, 2016, 15, 345-356.	1.3	23
612	Experimental approaches in mechanotransduction: From molecules to pathology. Methods, 2016, 94, 1-3.	1.9	2
613	Ultrahigh-resolution optical coherence elastography. Optics Letters, 2016, 41, 21.	1.7	42
614	Cells Sensing Mechanical Cues: Stiffness Influences the Lifetime of Cellâ€“Extracellular Matrix Interactions by Affecting the Loading Rate. ACS Nano, 2016, 10, 207-217.	7.3	54
615	Mechanosensitivity of integrin adhesion complexes: role of the consensus adhesome. Experimental Cell Research, 2016, 343, 7-13.	1.2	76
616	Multiscale modelling of solid tumour growth: the effect of collagen micromechanics. Biomechanics and Modeling in Mechanobiology, 2016, 15, 1079-1090.	1.4	16
617	The Dynamics of Cell Motility. Science Policy Reports, 2016, , 89-110.	0.1	0
618	Fusion of Quantitative Image and Genomic Biomarkers to Improve Prognosis Assessment of Early Stage Lung Cancer Patients. IEEE Transactions on Biomedical Engineering, 2016, 63, 1034-1043.	2.5	100
619	Forcing through Tumor Metastasis: The Interplay between Tissue Rigidity and Epithelialâ€“Mesenchymal Transition. Trends in Cell Biology, 2016, 26, 111-120.	3.6	175
620	For whom the cells pull: Hydrogel and micropost devices for measuring traction forces. Methods, 2016, 94, 51-64.	1.9	61
621	Monitoring developmental force distributions in reconstituted embryonic epithelia. Methods, 2016, 94, 101-113.	1.9	38
622	Microvesicles released from tumor cells disrupt epithelial cell morphology and contractility. Journal of Biomechanics, 2016, 49, 1272-1279.	0.9	17
623	Emerging Approaches for High-Resolution Imaging of Tissue Biomechanics With Optical Coherence Elastography. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 246-265.	1.9	69
624	More than a scaffold: Stromal modulation of tumor immunity. Biochimica Et Biophysica Acta: Reviews on Cancer, 2016, 1865, 3-13.	3.3	32
625	The hypoxic tumor microenvironment: A driving force for breast cancer progression. Biochimica Et Biophysica Acta - Molecular Cell Research, 2016, 1863, 382-391.	1.9	418
626	Myofibroblasts. Experimental Eye Research, 2016, 142, 56-70.	1.2	323
627	Modeling tensional homeostasis in multicellular clusters. International Journal for Numerical Methods in Biomedical Engineering, 2017, 33, e02801.	1.0	5
628	Translational aspects in targeting the stromal tumour microenvironment: From bench to bedside. European Journal of Molecular and Clinical Medicine, 2017, 3, 9.	0.5	18

#	Article	IF	Citations
629	Fluid shear stress activates YAP1 to promote cancer cell motility. Nature Communications, 2017, 8, 14122.	5.8	181
630	<scp>YAP</scp> is essential for 3D organogenesis withstanding gravity. Development Growth and Differentiation, 2017, 59, 52-58.	0.6	6
631	Fibronectin fibrils regulate TGF-Î²1-induced Epithelial-Mesenchymal Transition. Matrix Biology, 2017, 60-61, 157-175.	1.5	72
632	Characterizing Photon Reabsorption in Quantum Dot-Polymer Composites for Use as Displacement Sensors. ACS Nano, 2017, 11, 2075-2084.	7.3	32
633	Biomaterials Based Strategies for Engineering Tumor Microenvironment. Advanced Structured Materials, 2017, , 301-361.	0.3	0
634	Cell-like pressure sensors reveal increase of mechanical stress towards the core of multicellular spheroids under compression. Nature Communications, 2017, 8, 14056.	5.8	181
635	Cellâ€“Gel Mechanical Interactions as an Approach to Rapidly and Quantitatively Reveal Invasive Subpopulations of Metastatic Cancer Cells. Tissue Engineering - Part C: Methods, 2017, 23, 180-187.	1.1	23
636	A Validation Study of the Repeatability and Accuracy of Atomic Force Microscopy Indentation Using Polyacrylamide Gels and Colloidal Probes. Journal of Biomechanical Engineering, 2017, 139, .	0.6	7
637	Tumor Microenvironment and Differential Responses to Therapy. Cold Spring Harbor Perspectives in Medicine, 2017, 7, a026781.	2.9	278
638	Elevated collagen-I augments tumor progressive signals, intravasation and metastasis of prolactin-induced estrogen receptor alpha positive mammary tumor cells. Breast Cancer Research, 2017, 19, 9.	2.2	104
639	Agrin as a Mechanotransduction Signal Regulating YAP through the Hippo Pathway. Cell Reports, 2017, 18, 2464-2479.	2.9	175
640	Investigating the Mechanobiology of Cancer Cellâ€“ECM Interaction Through Collagen-Based 3D Scaffolds. Cellular and Molecular Bioengineering, 2017, 10, 223-234.	1.0	46
641	ITIH5 mediates epigenetic reprogramming of breast cancer cells. Molecular Cancer, 2017, 16, 44.	7.9	29
642	Are cancer cells really softer than normal cells?. Biology of the Cell, 2017, 109, 167-189.	0.7	244
643	Microfluidic traction force microscopy to study mechanotransduction in angiogenesis. Microcirculation, 2017, 24, e12361.	1.0	23
644	Award Winner in the Young Investigator Category, 2017 Society for Biomaterials Annual Meeting and Exposition, Minneapolis, MN, April 05â€"08, 2017: Lymph node stiffnessâ€mimicking hydrogels regulate human Bâ€cell lymphoma growth and cell surface receptor expression in a molecular subtypeâ€specific manner. Journal of Biomedical Materials Research - Part A, 2017, 105, 1833-1844.	2.1	23
645	Quantitative Analyses of Dynamic Features of Fibroblasts on Different Protein-Coated Compliant Substrates. ACS Biomaterials Science and Engineering, 2017, 3, 2987-2998.	2.6	5
646	Biomechanical cell regulatory networks as complex adaptive systems in relation to cancer. Cancer Cell International, 2017, 17, 16.	1.8	12

#	Article	IF	Citations
647	Modeling the two-way feedback between contractility and matrix realignment reveals a nonlinear mode of cancer cell invasion. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1617-E1626.	3.3	158
648	Assessing composition and structure of soft biphasic media from Kelvinâ€“Voigt fractional derivative model parameters. Measurement Science and Technology, 2017, 28, 035703.	1.4	5
649	Mechanical Adaptability of the MMPâ€Responsive Film Improves the Functionality of Endothelial Cell Monolayer. Advanced Healthcare Materials, 2017, 6, 1601410.	3.9	29
650	Stromal <scp>SPOCK</scp>1 supports invasive pancreatic cancer growth. Molecular Oncology, 2017, 11, 1050-1064.	2.1	27
651	Role for Mechanotransduction in Macrophage and Dendritic Cell Immunobiology. Results and Problems in Cell Differentiation, 2017, 62, 209-242.	0.2	26
652	Cell geometry dictates TNFÎ±-induced genome response. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E3882-E3891.	3.3	41
653	Macrophages. Results and Problems in Cell Differentiation, 2017, , .	0.2	8
654	Rational Hydrogel Formulation Leads to Reversible and Enhanced Photocontrolled Rigidity. ChemPhotoChem, 2017, 1, 311-316.	1.5	6
655	Orientation and repositioning of chromosomes correlate with cell geometryâ€dependent gene expression. Molecular Biology of the Cell, 2017, 28, 1997-2009.	0.9	94
656	Looking â€œUnder the Hoodâ€• of Cellular Mechanotransduction with Computational Tools: A Systems Biomechanics Approach across Multiple Scales. ACS Biomaterials Science and Engineering, 2017, 3, 2712-2726.	2.6	12
657	Multicellular tumor invasion and plasticity in biomimetic materials. Biomaterials Science, 2017, 5, 1460-1479.	2.6	17
658	Substrate stiffness-dependent regulation of SRF/Mkl1 requires the inner nuclear membrane protein Emerin. Journal of Cell Science, 2017, 130, 2111-2118.	1.2	25
659	Biophysical regulation of cancer stem/initiating cells: Implications for disease mechanisms and translation. Current Opinion in Biomedical Engineering, 2017, 1, 87-95.	1.8	15
660	Tightly controlled MRTF-A activity regulates epithelial differentiation during formation of mammary acini. Breast Cancer Research, 2017, 19, 68.	2.2	25
661	High-resolution analysis of the mechanical behavior of tissue. Applied Physics Letters, 2017, 110, 243701.	1.5	5
662	Stiffness of Protease Sensitive and Cell Adhesive PEG Hydrogels Promotes Neovascularization In Vivo. Annals of Biomedical Engineering, 2017, 45, 1387-1398.	1.3	35
663	Mechanical design in embryos: mechanical signalling, robustness and developmental defects. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20150516.	1.8	34
664	Tumour tissue transport after intraperitoneal anticancer drug delivery. International Journal of Hyperthermia, 2017, 33, 534-542.	1.1	25

#	Article	IF	Citations
665	Evaluating the influence of mechanical stress on anticancer treatments through a multiphase porous media model. Journal of Theoretical Biology, 2017, 421, 179-188.	0.8	25
666	Integrin-mediated traction force enhances paxillin molecular associations and adhesion dynamics that increase the invasiveness of tumor cells into a three-dimensional extracellular matrix. Molecular Biology of the Cell, 2017, 28, 1467-1488.	0.9	110
667	Subcellular regulation of cancer cell mechanics. Current Opinion in Biomedical Engineering, 2017, 1, 8-14.	1.8	12
668	Dynamic Cellular Interactions with Extracellular Matrix Triggered by Biomechanical Tuning of Lowâ€Rigidity, Supported Lipid Membranes. Advanced Healthcare Materials, 2017, 6, 1700243.	3.9	21
669	Comprehensive study on cellular morphologies, proliferation, motility, and epithelialâ€“mesenchymal transition of breast cancer cells incubated on electrospun polymeric fiber substrates. Journal of Materials Chemistry B, 2017, 5, 2588-2600.	2.9	22
670	Polymeric mechanical amplifiers of immune cytokine-mediated apoptosis. Nature Communications, 2017, 8, 14179.	5.8	26
671	Photoactivatable Substrates: A Materialâ€Based Approach for Dissecting Cell Migration. Chemical Record, 2017, 17, 611-621.	2.9	11
672	Metastatic breast cancer cells adhere strongly on varying stiffness substrates, initially without adjusting their morphology. Biomechanics and Modeling in Mechanobiology, 2017, 16, 961-970.	1.4	37
673	Automated quantification of three-dimensional organization of fiber-like structures in biological tissues. Biomaterials, 2017, 116, 34-47.	5.7	55
674	Tissue mechanics regulate brain development, homeostasis and disease. Journal of Cell Science, 2017, 130, 71-82.	1.2	243
675	Myofibroblast repair mechanisms post-inflammatory response: a fibrotic perspective. Inflammation Research, 2017, 66, 451-465.	1.6	59
676	Coordination between Intra- and Extracellular Forces Regulates Focal Adhesion Dynamics. Nano Letters, 2017, 17, 399-406.	4.5	63
677	PEGâ€“peptide hydrogels reveal differential effects of matrix microenvironmental cues on melanoma drug sensitivity. Integrative Biology (United Kingdom), 2017, 9, 76-87.	0.6	26
678	Keloid progression: a stiffness gap hypothesis. International Wound Journal, 2017, 14, 764-771.	1.3	30
679	Polarized cortical tension drives zebrafish epiboly movements. EMBO Journal, 2017, 36, 25-41.	3.5	28
680	MMP proteolytic activity regulates cancer invasiveness by modulating integrins. Scientific Reports, 2017, 7, 14219.	1.6	110
681	Mechano-Signal Transduction in Mesenchymal Stem Cells Induces Prosaposin Secretion to Drive the Proliferation of Breast Cancer Cells. Cancer Research, 2017, 77, 6179-6189.	0.4	68
682	Mechanobiology of YAP and TAZ in physiology and disease. Nature Reviews Molecular Cell Biology, 2017, 18, 758-770.	16.1	879

#	Article	IF	Citations
683	A fully-automated neural network analysis of AFM force-distance curves for cancer tissue diagnosis. Applied Physics Letters, 2017, 111, .	1.5	47
684	Tissue Force Programs Cell Fate and Tumor Aggression. Cancer Discovery, 2017, 7, 1224-1237.	7.7	181
685	Variations in basement membrane mechanics are linked to epithelial morphogenesis. Development (Cambridge), 2017, 144, 4350-4362.	1.2	57
686	Cell-derived matrices for studying cell proliferation and directional migration in a complex 3D microenvironment. Nature Protocols, 2017, 12, 2376-2390.	5.5	98
687	Epithelial contribution to the profibrotic stiff microenvironment and myofibroblast population in lung fibrosis. Molecular Biology of the Cell, 2017, 28, 3741-3755.	0.9	33
688	A nonlinear poroelastic theory of solid tumors with glycosaminoglycan swelling. Journal of Theoretical Biology, 2017, 433, 49-56.	0.8	24
689	High sensitivity HPLC method for determination of the allysine concentration in tissue by use of a naphthol derivative. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2017, 1064, 7-13.	1.2	14
690	Stochastic model of contact inhibition and the proliferation of melanoma in situ. Scientific Reports, 2017, 7, 8026.	1.6	13
691	Metabolic orchestration of T lineage differentiation and function. FEBS Letters, 2017, 591, 3104-3118.	1.3	19
692	Tumor Cell-Specific Nuclear Targeting of Functionalized Graphene Quantum Dots In Vivo. Bioconjugate Chemistry, 2017, 28, 2608-2619.	1.8	29
693	Molecular MR imaging of fibrosis in a mouse model of pancreatic cancer. Scientific Reports, 2017, 7, 8114.	1.6	30
694	Spatiotemporal variation of endogenous cell-generated stresses within 3D multicellular spheroids. Scientific Reports, 2017, 7, 12022.	1.6	28
695	Matrix stiffness regulates the proliferation, stemness and chemoresistance of laryngeal squamous cancer cells. International Journal of Oncology, 2017, 50, 1439-1447.	1.4	33
696	Bi-functional oxidized dextranâ€"based hydrogel inducing microtumors: An in vitro three-dimensional lung tumor model for drug toxicity assays. Journal of Tissue Engineering, 2017, 8, 204173141771839.	2.3	13
697	Impact of tumor architecture on disease recurrence and cancer-specific mortality of upper tract urothelial carcinoma treated with radical nephroureterectomy. Tumor Biology, 2017, 39, 101042831771082.	0.8	19
698	A novel 3-D bio-microfluidic system mimicking in vivo heterogeneous tumour microstructures reveals complex tumourâ€"stroma interactions. Lab on A Chip, 2017, 17, 2852-2860.	3.1	26
699	AIM1 is an actin-binding protein that suppresses cell migration and micrometastatic dissemination. Nature Communications, 2017, 8, 142.	5.8	36
700	Mechanoresponsive stem cells to target cancer metastases through biophysical cues. Science Translational Medicine, 2017, 9, .	5.8	74

#	Article	IF	Citations
701	Dynamic Light Scattering Microrheology Reveals Multiscale Viscoelasticity of Polymer Gels and Precious Biological Materials. ACS Central Science, 2017, 3, 1294-1303.	5.3	63
702	Substrate stiffness influences phenotype and function of human antigen-presenting dendritic cells. Scientific Reports, 2017, 7, 17511.	1.6	68
703	Stiffness-dependent motility andÂproliferation uncoupled by deletion of CD44. Scientific Reports, 2017, 7, 16499.	1.6	48
704	Fibrosis imaging: Current concepts and future directions. Advanced Drug Delivery Reviews, 2017, 121, 9-26.	6.6	110
705	Fibronectin-bound Î±5Î²1 integrins sense load and signal to reinforce adhesion in less than a second. Nature Materials, 2017, 16, 1262-1270.	13.3	109
706	PLOD2 regulated by transcription factor FOXA1 promotes metastasis in NSCLC. Cell Death and Disease, 2017, 8, e3143-e3143.	2.7	79
707	Facile formation of a microporous chitosan hydrogel based on self-crosslinking. Journal of Materials Chemistry B, 2017, 5, 9291-9299.	2.9	20
708	Click chemistry stereolithography for soft robots that self-heal. Journal of Materials Chemistry B, 2017, 5, 6249-6255.	2.9	126
709	Tumor matrix stiffness promotes metastatic cancer cell interaction with the endothelium. EMBO Journal, 2017, 36, 2373-2389.	3.5	144
710	The extracellular matrix of the gastrointestinal tract: a regenerative medicine platform. Nature Reviews Gastroenterology and Hepatology, 2017, 14, 540-552.	8.2	61
711	Microfluidic technologies for anticancer drug studies. Drug Discovery Today, 2017, 22, 1654-1670.	3.2	63
712	Extracellular Matrix Stiffening Induces a Malignant Phenotypic Transition in Breast Epithelial Cells. Cellular and Molecular Bioengineering, 2017, 10, 114-123.	1.0	48
713	Application of bioresorbable polymers in muscular system. , 2017, , 469-495.		0
714	Contextual Control of Adipose-Derived Stem Cell Function: Implications for Engineered Tumor Models. ACS Biomaterials Science and Engineering, 2017, 3, 1483-1493.	2.6	7
715	Elastic properties of hydrogels and decellularized tissue sections used in mechanobiology studies probed by atomic force microscopy. Microscopy Research and Technique, 2017, 80, 85-96.	1.2	26
716	Cellular adaptation to biomechanical stress across length scales in tissue homeostasis and disease. Seminars in Cell and Developmental Biology, 2017, 67, 141-152.	2.3	43
717	Embryo implantation triggers dynamic spatiotemporal expression of the basement membrane toolkit during uterine reprogramming. Matrix Biology, 2017, 57-58, 347-365.	1.5	15
718	Recapitulating the human tumor microenvironment: Colon tumor-derived extracellular matrix promotes angiogenesis and tumor cell growth. Biomaterials, 2017, 116, 118-129.	5.7	88

#	Article	IF	Citations
719	Identification of clinically predictive metagenes that encode components of a network coupling cell shape to transcription by image-omics. Genome Research, 2017, 27, 196-207.	2.4	33
720	PEGâ€fibrinogen hydrogels for threeâ€dimensional breast cancer cell culture. Journal of Biomedical Materials Research - Part A, 2017, 105, 236-252.	2.1	64
721	The Extracellular Matrix in Development. , 2017, , 49-54.e2.		0
722	YAP mediated mechano-homeostasis â€" conditioning 3D animal body shape. Current Opinion in Cell Biology, 2017, 49, 64-70.	2.6	4
723	Machine Learning for Nuclear Mechano-Morphometric Biomarkers in Cancer Diagnosis. Scientific Reports, 2017, 7, 17946.	1.6	41
724	Engineering solutions for cancer. Convergent Science Physical Oncology, 2017, 3, 010201.	2.6	0
725	Multiple Cryptic Binding Sites are Necessary for Robust Fibronectin Assembly: An In Silico Study. Scientific Reports, 2017, 7, 18061.	1.6	15
726	Matrix stiffness enhances VEGFR-2 internalization, signaling, and proliferation in endothelial cells. Convergent Science Physical Oncology, 2017, 3, 044001.	2.6	55
727	In situ measurement of ECM rheology and microheterogeneity in embedded and overlaid 3D pancreatic tumor stroma co-cultures via passive particle tracking. Journal of Innovative Optical Health Sciences, 2017, 10, 1742003.	0.5	6
728	Laser speckle contrast shear wave imaging of three-dimensional cancer metastasis model. , 2017, , .		1
729	Biglycan expression in the melanoma microenvironment promotes invasiveness via increased tissue stiffness inducing integrin-β1 expression. Oncotarget, 2017, 8, 42901-42916.	0.8	60
730	Analysis of Contractility and Invasion Potential of Two Canine Mammary Tumor Cell Lines. Frontiers in Veterinary Science, 2017, 4, 149.	0.9	3
731	Measurement of dynamic cell-induced 3D displacement fields in vitro for traction force optical coherence microscopy. Biomedical Optics Express, 2017, 8, 1152.	1.5	37
732	Evaluation of anticancer drug in a polymer 3D cell chip. Optical Materials Express, 2017, 7, 2752.	1.6	7
733	Human colorectal cancer progression correlates with LOX-induced ECM stiffening. International Journal of Biological Sciences, 2017, 13, 1450-1457.	2.6	62
734	Convection-enhanced Delivery of Therapeutics for Malignant Gliomas. Neurologia Medico-Chirurgica, 2017, 57, 8-16.	1.0	17
735	2.7 Extracellular Matrix: Inspired Biomaterials â˜†. , 2017, , 132-146.		2
736	5.17 Three-Dimensional Bioengineered Cancer Models. , 2017, , 303-328.		2

#	Article	IF	Citations
737	Collateral Damage Intendedâ€"Cancer-Associated Fibroblasts and Vasculature Are Potential Targets in Cancer Therapy. International Journal of Molecular Sciences, 2017, 18, 2355.	1.8	30
738	Dysregulated Collagen Homeostasis by Matrix Stiffening and TGF-Î²1 in Fibroblasts from Idiopathic Pulmonary Fibrosis Patients: Role of FAK/Akt. International Journal of Molecular Sciences, 2017, 18, 2431.	1.8	68
739	Pathophysiological Mechanisms in Sclerosing Skin Diseases. Frontiers in Medicine, 2017, 4, 120.	1.2	8
740	Cancer Stem Cells and Their Microenvironment: Biology and Therapeutic Implications. Stem Cells International, 2017, 2017, 1-11.	1.2	132
741	Vitamin C in Stem Cell Biology: Impact on Extracellular Matrix Homeostasis and Epigenetics. Stem Cells International, 2017, 2017, 1-16.	1.2	76
742	Rac2 is required for alternative macrophage activation and bleomycin induced pulmonary fibrosis; a macrophage autonomous phenotype. PLoS ONE, 2017, 12, e0182851.	1.1	28
743	Multiscale biphasic modelling of peritumoural collagen microstructure: The effect of tumour growth on permeability and fluid flow. PLoS ONE, 2017, 12, e0184511.	1.1	10
744	Mechanically tuned 3 dimensional hydrogels support human mammary fibroblast growth and viability. BMC Cell Biology, 2017, 18, 35.	3.0	10
745	Laser speckle contrast shear wave imaging of three-dimensional cancer metastasis model. , 2017, , .		0
746	Full L1-regularized Traction Force Microscopy over whole cells. BMC Bioinformatics, 2017, 18, 365.	1.2	10
747	Quantum dots modulate intracellular Ca²⁺ level in lung epithelial cells. International Journal of Nanomedicine, 2017, Volume 12, 2781-2792.	3.3	3
748	Cancer Biophysics. , 2017, , .		2
749	Microfilament-coordinated adhesion dynamics drives single cell migration and shapes whole tissues. F1000Research, 2017, 6, 160.	0.8	8
750	LOXL4 knockdown enhances tumor growth and lung metastasis through collagen-dependent extracellular matrix changes in triple-negative breast cancer. Oncotarget, 2017, 8, 11977-11989.	0.8	46
751	The Extracellular Matrix as a Target for Biophysical and Molecular Magnetic Resonance Imaging. , 2018, , 123-150.		3
752	Mechanotransduction in tumor progression: The dark side of the force. Journal of Cell Biology, 2018, 217, 1571-1587.	2.3	225
753	Extracellular matrix remodeling in 3D: implications in tissue homeostasis and disease progression. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2018, 10, e1503.	3.3	35
754	The influence of matrix stiffness on the behavior of brain metastatic breast cancer cells in a biomimetic hyaluronic acid hydrogel platform. Journal of Biomedical Materials Research - Part A, 2018, 106, 1832-1841.	2.1	36

#	Article	IF	Citations
755	A 3-Dimensional Biomimetic Platform to Interrogate the Safety of Autologous Fat Transfer in the Setting of Breast Cancer. Annals of Plastic Surgery, 2018, 80, S223-S228.	0.5	7
756	Epidermal growth factor receptor and integrins control force-dependent vinculin recruitment to E-Cadherin junctions. Journal of Cell Science, 2018, 131, .	1.2	19
757	Graphene-Augmented Nanofiber Scaffolds Trigger Gene Expression Switching of Four Cancer Cell Types. ACS Biomaterials Science and Engineering, 2018, 4, 1622-1629.	2.6	11
758	TRPM7 controls mesenchymal features of breast cancer cells by tensional regulation of SOX4. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2018, 1864, 2409-2419.	1.8	29
759	Large-scale patterning of single cells and cell clusters in hydrogels. Scientific Reports, 2018, 8, 3849.	1.6	14
760	Amorphous polyphosphate, a smart bioinspired nano-/bio-material for bone and cartilage regeneration: towards a new paradigm in tissue engineering. Journal of Materials Chemistry B, 2018, 6, 2385-2412.	2.9	81
761	Effect of low frequency magnetic fields on the growth of MNP-treated HT29 colon cancer cells. Nanotechnology, 2018, 29, 175101.	1.3	23
762	The Mechanical Contribution of Vimentin to Cellular Stress Generation. Journal of Biomechanical Engineering, 2018, 140, .	0.6	7
763	Towards personalized computational oncology: from spatial models of tumour spheroids, to organoids, to tissues. Journal of the Royal Society Interface, 2018, 15, 20170703.	1.5	101
765	Orientations of Cells on Compliant Substrates under Biaxial Stretches: A Theoretical Study. Biophysical Journal, 2018, 114, 701-710.	0.2	35
766	Injectable Hydrogel with Slow Degradability Composed of Gelatin and Hyaluronic Acid Cross-Linked by Schiffâ€™s Base Formation. Biomacromolecules, 2018, 19, 288-297.	2.6	163
767	Mechanical cues control mutant p53 stability through a mevalonateâ€“RhoA axis. Nature Cell Biology, 2018, 20, 28-35.	4.6	104
768	Mechanical cell competition. Current Opinion in Cell Biology, 2018, 51, 15-21.	2.6	54
769	CTHRC1 induces non-small cell lung cancer (NSCLC) invasion through upregulating MMP-7/MMP-9. BMC Cancer, 2018, 18, 400.	1.1	52
770	Affinity proteomic profiling of plasma for proteins associated to area-based mammographic breast density. Breast Cancer Research, 2018, 20, 14.	2.2	8
771	Photoreversible Covalent Hydrogels for Soft-Matter Additive Manufacturing. ACS Applied Materials & Interfaces, 2018, 10, 16793-16801.	4.0	105
772	A history of exploring cancer in context. Nature Reviews Cancer, 2018, 18, 359-376.	12.8	361
773	Toll-like receptor signaling in macrophages is regulated by extracellular substrate stiffness and Rho-associated coiled-coil kinase (ROCK1/2). International Immunology, 2018, 30, 267-278.	1.8	45

#	Article	IF	Citations
774	Matrix stiffness and tumor-associated macrophages modulate epithelial to mesenchymal transition of human adenocarcinoma cells. Biofabrication, 2018, 10, 035004.	3.7	63
775	Mechanosensitivity of Cancer Cells in Contact with Soft Substrates Using AFM. Biophysical Journal, 2018, 114, 1165-1175.	0.2	63
776	Beyond Tissue Stiffness and Bioadhesivity: Advanced Biomaterials to Model Tumor Microenvironments and Drug Resistance. Trends in Cancer, 2018, 4, 281-291.	3.8	36
777	Metastasis in context: modeling the tumor microenvironment with cancer-on-a-chip approaches. DMM Disease Models and Mechanisms, 2018, 11, .	1.2	98
778	Nonlinear studies of tumor morphological stability using a two-fluid flow model. Journal of Mathematical Biology, 2018, 77, 671-709.	0.8	8
779	Debugging Nanoâ€“Bio Interfaces: Systematic Strategies to Accelerate Clinical Translation of Nanotechnologies. Trends in Biotechnology, 2018, 36, 755-769.	4.9	145
780	The mode and dynamics of glioblastoma cell invasion into a decellularized tissue-derived extracellular matrix-based three-dimensional tumor model. Scientific Reports, 2018, 8, 4608.	1.6	115
781	A cell impedance measurement device for the cytotoxicity assay dependent on the velocity of supplied toxic fluid. Journal of Micromechanics and Microengineering, 2018, 28, 045012.	1.5	5
782	Cadherin- and Rigidity-Dependent Growth of Lung Cancer Cells in a Partially Confined Microenvironment. ACS Biomaterials Science and Engineering, 2018, 4, 446-455.	2.6	7
783	In Vitro Modeling of Mechanics in Cancer Metastasis. ACS Biomaterials Science and Engineering, 2018, 4, 294-301.	2.6	64
784	The biochemical, nanomechanical and chemometric signatures of brain cancer. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 188, 8-19.	2.0	70
785	Bidirectional mechanobiology between cells and their local extracellular matrix probed by atomic force microscopy. Seminars in Cell and Developmental Biology, 2018, 73, 71-81.	2.3	63
786	Predicting the role of microstructural and biomechanical cues in tumor growth and spreading. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2935.	1.0	7
787	Cellular shear stiffness reflects progression of arsenic-induced transformation during G1. Carcinogenesis, 2018, 39, 109-117.	1.3	11
788	Measuring the Mechanical Properties of Single Cells by AFM. Springer Theses, 2018, , 33-47.	0.0	0
789	Rethinking liquid biopsy: Microfluidic assays for mobile tumor cells in human body fluids. Biomaterials, 2018, 150, 112-124.	5.7	34
790	Substrate stiffness regulated migration and angiogenesis potential of A549 cells and HUVECs. Journal of Cellular Physiology, 2018, 233, 3407-3417.	2.0	48
791	Ezrin regulates skin fibroblast size/mechanical properties and YAP-dependent proliferation. Journal of Cell Communication and Signaling, 2018, 12, 549-560.	1.8	15

#	Article	IF	Citations
792	Paving the Rho in cancer metastasis: Rho GTPases and beyond. , 2018, 183, 1-21.		132
793	Building Better Tumor Models: Organoid Systems to Investigate Angiogenesis. Cancer Drug Discovery and Development, 2018, , 117-148.	0.2	2
794	The two faces of enhanced stroma: Stroma acts as a tumor promoter and a steric obstacle. NMR in Biomedicine, 2018, 31, e3831.	1.6	32
795	Numerical investigation of the role of intercellular interactions on collective epithelial cell migration. Biomechanics and Modeling in Mechanobiology, 2018, 17, 439-448.	1.4	6
796	Investigations of Cellular and Molecular Biophysical Properties by Atomic Force Microscopy Nanorobotics. Springer Theses, 2018, , .	0.0	0
797	Length Scale Matters: Real-Time Elastography versus Nanomechanical Profiling by Atomic Force Microscopy for the Diagnosis of Breast Lesions. BioMed Research International, 2018, 2018, 1-12.	0.9	8
798	AFM assessing of nanomechanical fingerprints for cancer early diagnosis and classification: from single cell to tissue level. Nanoscale, 2018, 10, 20930-20945.	2.8	108
799	Tiny Rare-Earth Fluoride Nanoparticles Activate Tumour Cell Growth via Electrical Polar Interactions. Nanoscale Research Letters, 2018, 13, 370.	3.1	29
800	Biomechanics in Oncology. Advances in Experimental Medicine and Biology, 2018, , .	0.8	7
801	An in vitro correlation of metastatic capacity and dual mechanostimulation. PLoS ONE, 2018, 13, e0207490.	1.1	4
802	YAP/TAZ Signaling as a Molecular Link between Fibrosis and Cancer. International Journal of Molecular Sciences, 2018, 19, 3674.	1.8	179
803	Cell metabolism regulates integrin mechanosensing via an SLC3A2-dependent sphingolipid biosynthesis pathway. Nature Communications, 2018, 9, 4862.	5.8	28
804	Shear Wave Elasticity Measurements of Three-Dimensional Cancer Cell Cultures Using Laser Speckle Contrast Imaging. Scientific Reports, 2018, 8, 14470.	1.6	8
805	The emergence of solid stress as a potent biomechanical marker of tumour progression. Emerging Topics in Life Sciences, 2018, 2, 739-749.	1.1	4
806	Biomaterial Engineering for Controlling Pluripotent Stem Cell Fate. Stem Cells International, 2018, 2018, 1-12.	1.2	25
807	Biomechanical Characterization at the Cell Scale: Present and Prospects. Frontiers in Physiology, 2018, 9, 1449.	1.3	59
808	Mechanotransduction mechanisms in growing spherically structured tissues. New Journal of Physics, 2018, 20, 043041.	1.2	2
809	Real-time scratch assay reveals mechanisms of early calcium signaling in breast cancer cells in response to wounding. Oncotarget, 2018, 9, 25008-25024.	0.8	11

#	Article	IF	Citations
810	Microenvironmental niche divergence shapes BRCA1-dysregulated ovarian cancer morphological plasticity. Nature Communications, 2018, 9, 3917.	5.8	33
811	Modeling the effect of ascites-induced compression on ovarian cancer multicellular aggregates. DMM Disease Models and Mechanisms, 2018, 11, .	1.2	27
812	Frustrated endocytosis controls contractility-independent mechanotransduction at clathrin-coated structures. Nature Communications, 2018, 9, 3825.	5.8	88
813	Compressive force induces reversible chromatin condensation and cell geometryâ€“dependent transcriptional response. Molecular Biology of the Cell, 2018, 29, 3039-3051.	0.9	106
814	Differential incorporation of SUN-domain proteins into LINC complexes is coupled to gene expression. PLoS ONE, 2018, 13, e0197621.	1.1	17
815	Local Tension on Talin in Focal Adhesions Correlates with F-Actin Alignment at the NanometerÂScale. Biophysical Journal, 2018, 115, 1569-1579.	0.2	28
816	Therapeutic targeting of cellular stress responses in cancer. Thoracic Cancer, 2018, 9, 1575-1582.	0.8	36
817	Nanoscale Topography and Poroelastic Properties of Model Tissue Breast Gland Basement Membranes. Biophysical Journal, 2018, 115, 1770-1782.	0.2	15
818	Microenvironment Influences Cancer Cell Mechanics from Tumor Growth to Metastasis. Advances in Experimental Medicine and Biology, 2018, 1092, 69-90.	0.8	20
819	Mechanical Forces in Tumor Angiogenesis. Advances in Experimental Medicine and Biology, 2018, 1092, 91-112.	0.8	93
820	Engineered Models of Metastasis with Application to Study Cancer Biomechanics. Advances in Experimental Medicine and Biology, 2018, 1092, 189-207.	0.8	5
821	Traction Force Microscopy for Noninvasive Imaging of Cell Forces. Advances in Experimental Medicine and Biology, 2018, 1092, 319-349.	0.8	23
822	Jitterbug/Filamin and Myosin-II form a complex in tendon cells required to maintain epithelial shape and polarity during musculoskeletal system development. Mechanisms of Development, 2018, 154, 309-314.	1.7	5
823	Mechano-chemostats to study the effects of compressive stress on yeast. Methods in Cell Biology, 2018, 147, 215-231.	0.5	9
824	Extracellular matrix constitution and function for tissue regeneration and repair. , 2018, , 29-72.		8
825	A tension-mediated glycocalyxâ€“integrin feedback loop promotes mesenchymal-like glioblastoma. Nature Cell Biology, 2018, 20, 1203-1214.	4.6	103
826	Stiffness memory of indirectly 3D-printed elastomer nanohybrid regulates chondrogenesis and osteogenesis of human mesenchymal stem cells. Biomaterials, 2018, 186, 64-79.	5.7	46
827	Mechanotargeting: MechanicsâEDependent Cellular Uptake of Nanoparticles. Advanced Materials, 2018, 30, e1707464.	11.1	38

#	Article	IF	Citations
828	Photonic force optical coherence elastography for three-dimensional mechanical microscopy. Nature Communications, 2018, 9, 2079.	5.8	33
829	Tunable stiffness of graphene oxide/polyacrylamide composite scaffolds regulates cytoskeleton assembly. Chemical Science, 2018, 9, 6516-6522.	3.7	22
830	3D organizational mapping of collagen fibers elucidates matrix remodeling in a hormone-sensitive 3D breast tissue model. Biomaterials, 2018, 179, 96-108.	5.7	28
831	Mechanisms and impact of altered tumour mechanics. Nature Cell Biology, 2018, 20, 766-774.	4.6	201
832	Pharmacokinetics and Tissue Transport of Intraperitoneal Chemotherapy. Surgical Oncology Clinics of North America, 2018, 27, 477-494.	0.6	15
833	Distinct niches within the extracellular matrix dictate fibroblast function in (cell free) 3D lung tissue cultures. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2018, 314, L708-L723.	1.3	28
834	Biophysics of Tumor Microenvironment and Cancer Metastasis - A Mini Review. Computational and Structural Biotechnology Journal, 2018, 16, 279-287.	1.9	190
835	Modeling Tissue Polarity in Context. Journal of Molecular Biology, 2018, 430, 3613-3628.	2.0	16
836	Contact inhibition controls cell survival and proliferation via YAP/TAZ-autophagy axis. Nature Communications, 2018, 9, 2961.	5.8	193
837	Linking Extracellular Matrix Agrin to the Hippo Pathway in Liver Cancer and Beyond. Cancers, 2018, 10, 45.	1.7	43
838	Glial Tissue Mechanics and Mechanosensing by Glial Cells. Frontiers in Cellular Neuroscience, 2018, 12, 25.	1.8	48
839	Defining the Role of Solid Stress and Matrix Stiffness in Cancer Cell Proliferation and Metastasis. Frontiers in Oncology, 2018, 8, 55.	1.3	183
840	Cutting to the Chase: How Matrix Metalloproteinase-2 Activity Controls Breast-Cancer-to-Bone Metastasis. Cancers, 2018, 10, 185.	1.7	50
841	Microfabrication-Based Three-Dimensional (3-D) Extracellular Matrix Microenvironments for Cancer and Other Diseases. International Journal of Molecular Sciences, 2018, 19, 935.	1.8	16
842	TGFÎ², Fibronectin and Integrin Î±5Î²1 Promote Invasion in Basal Cell Carcinoma. Journal of Investigative Dermatology, 2018, 138, 2432-2442.	0.3	29
843	Feeling Stress: The Mechanics of Cancer Progression and Aggression. Frontiers in Cell and Developmental Biology, 2018, 6, 17.	1.8	288
844	Evaluation of Fluorine-18-Labeled Î±1(I)-N-Telopeptide Analogs as Substrate-Based Radiotracers for PET Imaging of Melanoma-Associated Lysyl Oxidase. Frontiers in Chemistry, 2018, 6, 121.	1.8	6
845	Epithelialâ€mesenchymal transition softens head and neck cancer cells to facilitate migration in 3D environments. Journal of Cellular and Molecular Medicine, 2018, 22, 3837-3846.	1.6	21

#	Article	IF	Citations
846	Flat Cell Culturing Surface May Cause Misinterpretation of Cellular Uptake of Nanoparticles. Advanced Biology, 2018, 2, 1800046.	3.0	7
847	The origins of breast cancer associated with mammographic density: a testable biological hypothesis. Breast Cancer Research, 2018, 20, 17.	2.2	32
848	TGF-Î² induces changes in breast cancer cell deformability. Physical Biology, 2018, 15, 065005.	0.8	20
849	Experimental estimation of stored stress within spherical microtissues. Journal of Mathematical Biology, 2018, 77, 1073-1092.	0.8	8
850	The mechanical microenvironment regulates ovarian cancer cell morphology, migration, and spheroid disaggregation. Scientific Reports, 2018, 8, 7228.	1.6	126
851	Increased myocardial stiffness activates cardiac microvascular endothelial cell via VEGF paracrine signaling in cardiac hypertrophy. Journal of Molecular and Cellular Cardiology, 2018, 122, 140-151.	0.9	33
852	Development of an end-effector device for loose body removal in hip arthroscopy. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2018, 232, 987-998.	1.0	4
853	From individual to collective 3D cancer dissemination: roles of collagen concentration and TGF-Î². Scientific Reports, 2018, 8, 12723.	1.6	58
854	Cancer cellsâ€™ ability to mechanically adjust to extracellular matrix stiffness correlates with their invasive potential. Molecular Biology of the Cell, 2018, 29, 2378-2385.	0.9	182
855	Hybrid collagen alginate hydrogel as a platform for 3D tumor spheroid invasion. Acta Biomaterialia, 2018, 75, 213-225.	4.1	115
856	Impact of physical confinement on nuclei geometry and cell division dynamics in 3D spheroids. Scientific Reports, 2018, 8, 8785.	1.6	43
857	Actin cytoskeleton assembly regulates collagen production via TGFâ€Î² type II receptor in human skin fibroblasts. Journal of Cellular and Molecular Medicine, 2018, 22, 4085-4096.	1.6	35
858	Hierarchical Micro- and Nanopatterning of Metallic Glass to Engineer Cellular Responses. ACS Applied Bio Materials, 2018, 1, 51-58.	2.3	12
859	Mechanochemistry in cancer cell metastasis. Chinese Chemical Letters, 2019, 30, 7-14.	4.8	12
860	Mechanical spectroscopy and imaging of skin components in vivo: Assignment of the observed moduli. Skin Research and Technology, 2019, 25, 47-53.	0.8	9
861	Optical palpation for the visualization of tumor in human breast tissue. Journal of Biophotonics, 2019, 12, e201800180.	1.1	13
862	In Vitro Models for Studying Invasive Transitions of Ductal Carcinoma In Situ. Journal of Mammary Gland Biology and Neoplasia, 2019, 24, 1-15.	1.0	29
863	Physical properties of the photodamaged human skin dermis: Rougher collagen surface and stiffer/harder mechanical properties. Experimental Dermatology, 2019, 28, 914-921.	1.4	10

#	Article	IF	Citations
864	Compression-induced expression of glycolysis genes in CAFs correlates with EMT and angiogenesis gene expression in breast cancer. Communications Biology, 2019, 2, 313.	2.0	38
865	Engineered materials for organoid systems. Nature Reviews Materials, 2019, 4, 606-622.	23.3	251
866	The tumor cellâ€secreted matricellular protein <scp>WISP</scp> 1 drives proâ€metastatic collagen linearization. EMBO Journal, 2019, 38, e101302.	3.5	24
867	Mechanical Heterogeneity in Tissues Promotes Rigidity and Controls Cellular Invasion. Physical Review Letters, 2019, 123, 058101.	2.9	34
868	Mechanosensitive ion channel Piezo1 promotes prostate cancer development through the activation of the Akt/mTOR pathway and acceleration of cell cycle. International Journal of Oncology, 2019, 55, 629-644.	1.4	55
869	Mammographic Density: Intersection of Advocacy, Science, and Clinical Practice. Current Breast Cancer Reports, 2019, 11, 100-110.	0.5	1
870	Fluid shear stress stimulates breast cancer cells to display invasive and chemoresistant phenotypes while upregulating PLAU in a 3D bioreactor. Biotechnology and Bioengineering, 2019, 116, 3084-3097.	1.7	44
872	Targeting the Tumor Microenvironment to Overcome Resistance to Therapy. Resistance To Targeted Anti-cancer Therapeutics, 2019, , 35-61.	0.1	1
873	Evolution of Bioengineered Lung Models: Recent Advances and Challenges in Tissue Mimicry for Studying the Role of Mechanical Forces in Cell Biology. Advanced Functional Materials, 2019, 29, 1903114.	7.8	40
874	The evolution of spindles and their mechanical implications for cancer metastasis. Cell Cycle, 2019, 18, 1671-1675.	1.3	4
875	Intratumoral fate of functional nanoparticles in response to microenvironment factor: Implications on cancer diagnosis and therapy. Advanced Drug Delivery Reviews, 2019, 143, 37-67.	6.6	79
876	Tissue stiffness at the human maternalâ€“fetal interface. Human Reproduction, 2019, 34, 1999-2008.	0.4	68
877	Transcriptome Profiling Reveals Matrisome Alteration as a Key Feature of Ovarian Cancer Progression. Cancers, 2019, 11, 1513.	1.7	34
878	Mechanosensing during directed cell migration requires dynamic actin polymerization at focal adhesions. Journal of Cell Biology, 2019, 218, 4215-4235.	2.3	61
879	Pancreatic stellate cells activated by mutant KRAS-mediated PAI-1 upregulation foster pancreatic cancer progression via IL-8. Theranostics, 2019, 9, 7168-7183.	4.6	34
880	Effect of Adhesion and Substrate Elasticity on Neutrophil Extracellular Trap Formation. Frontiers in Immunology, 2019, 10, 2320.	2.2	35
881	The Tumor Microenvironment as a Regulator of Endocrine Resistance in Breast Cancer. Frontiers in Endocrinology, 2019, 10, 547.	1.5	26
882	Mechanics of tissue competition: interfaces stabilize coexistence. New Journal of Physics, 2019, 21, 063017.	1.2	12

#	Article	IF	Citations
883	YAP/TAZ Related BioMechano Signal Transduction and Cancer Metastasis. Frontiers in Cell and Developmental Biology, 2019, 7, 199.	1.8	11
884	Evaluation of breast stiffness measured by ultrasound and breast density measured by MRI using a prone-supine deformation model. Biomarker Research, 2019, 7, 20.	2.8	14
885	Convection-Enhanced Delivery: Connection to and Impact of Interstitial Fluid Flow. Frontiers in Oncology, 2019, 9, 966.	1.3	64
886	Do the properties of gels constructed by interlinking triply-responsive microgels follow from those of the building blocks?. Soft Matter, 2019, 15, 527-536.	1.2	10
887	Effect of Hydrostatic Pressure, Boundary Constraints and Viscosity on the Vaporization Threshold of Low-Boiling-Point Phase-Change Contrast Agents. Ultrasound in Medicine and Biology, 2019, 45, 968-979.	0.7	19
888	Fibrinogenâ€“erythrocyte binding and hemorheology measurements in the assessment of essential arterial hypertension patients. Nanoscale, 2019, 11, 2757-2766.	2.8	22
889	Polarization of Myosin II Refines Tissue Material Properties to Buffer Mechanical Stress. Developmental Cell, 2019, 48, 245-260.e7.	3.1	68
890	The fabrication of uniaxially aligned micro-textured polycaprolactone struts and application for skeletal muscle tissue regeneration. Biofabrication, 2019, 11, 025005.	3.7	19
891	Quantitative phase imaging reveals matrix stiffness-dependent growth and migration of cancer cells. Scientific Reports, 2019, 9, 248.	1.6	44
892	Traction force microscopy with optimized regularization and automated Bayesian parameter selection for comparing cells. Scientific Reports, 2019, 9, 539.	1.6	48
893	The Small GTPase Rac1 Increases Cell Surface Stiffness and Enhances 3D Migration Into Extracellular Matrices. Scientific Reports, 2019, 9, 7675.	1.6	55
894	The role of scaffolds in tissue engineering. , 2019, , 23-49.		10
895	Integrins as biomechanical sensors ofÂthe microenvironment. Nature Reviews Molecular Cell Biology, 2019, 20, 457-473.	16.1	768
896	Interplay Between LOX Enzymes and Integrins in the Tumor Microenvironment. Cancers, 2019, 11, 729.	1.7	50
897	Fighting Thyroid Cancer with Microgravity Research. International Journal of Molecular Sciences, 2019, 20, 2553.	1.8	36
898	Cellular morphologies, motility, and epithelialâ€“mesenchymal transition of breast cancer cells incubated on viscoelastic gel substrates in hypoxia. Materials Today Chemistry, 2019, 13, 8-17.	1.7	6
899	Stretch Induces Invasive Phenotypes in Breast Cells Due to Activation of Aerobicâ€Glycolysisâ€Related Pathways. Advanced Biology, 2019, 3, e1800294.	3.0	5
900	Morpho-mechanics of human collagen superstructures revealed by all-optical correlative micro-spectroscopies. Communications Biology, 2019, 2, 117.	2.0	49

#	Article	IF	Citations
901	Mechanical Characterization of 3D Ovarian Cancer Nodules Using Brillouin Confocal Microscopy. Cellular and Molecular Bioengineering, 2019, 12, 215-226.	1.0	27
902	Differential Homeostasis of Sessile and Pendant Epithelium Reconstituted in a 3Dâ€Printed â€œGeminiChipâ€. Advanced Materials, 2019, 31, e1900514.	11.1	12
903	Enhanced Dendritic Actin Network Formation in Extended Lamellipodia Drives Proliferation in Growth-Challenged Rac1P29S Melanoma Cells. Developmental Cell, 2019, 49, 444-460.e9.	3.1	36
904	Collagen Type Iâ€“Gelatin Methacryloyl Composites: Mimicking the Tumor Microenvironment. ACS Biomaterials Science and Engineering, 2019, 5, 2887-2898.	2.6	18
905	Myosin II Activity Is Selectively Needed for Migration in Highly Confined Microenvironments in Mature Dendritic Cells. Frontiers in Immunology, 2019, 10, 747.	2.2	38
906	A New Player in Tissue Mechanics: MicroRNA Control of Mechanical Homeostasis. Developmental Cell, 2019, 48, 596-598.	3.1	3
907	Collagen. Methods in Molecular Biology, 2019, , .	0.4	5
908	Surface Engineered Biomimetic Inks Based on UV Cross-Linkable Wood Biopolymers for 3D Printing. ACS Applied Materials & Interfaces, 2019, 11, 12389-12400.	4.0	65
909	Cancer-associated fibroblasts: how do they contribute to metastasis?. Clinical and Experimental Metastasis, 2019, 36, 71-86.	1.7	93
910	Matrix metalloproteinases participation in the metastatic process and their diagnostic and therapeutic applications in cancer. Critical Reviews in Oncology/Hematology, 2019, 137, 57-83.	2.0	226
911	On the synthesis and characterization of biofunctional hyaluronic acid based injectable hydrogels for the repair of cartilage lesions. European Polymer Journal, 2019, 114, 47-56.	2.6	33
912	Quantitative cell-based model predicts mechanical stress response of growing tumor spheroids over various growth conditions and cell lines. PLoS Computational Biology, 2019, 15, e1006273.	1.5	46
913	Promising diagnostic and prognostic value of E2Fs in human hepatocellular carcinoma . Cancer Management and Research, 2019, Volume 11, 1725-1740.	0.9	45
914	Tumorigenic Interplay Between Macrophages and Collagenous Matrix in the Tumor Microenvironment. Methods in Molecular Biology, 2019, 1944, 203-220.	0.4	14
915	Fibroblasts stimulate macrophage migration in interconnected extracellular matrices through tunnel formation and fiber alignment. Biomaterials, 2019, 209, 88-102.	5.7	21
916	Protein corona variation in nanoparticles revisited: A dynamic grouping strategy. Colloids and Surfaces B: Biointerfaces, 2019, 179, 505-516.	2.5	14
917	The matrix environmental and cell mechanical properties regulate cell migration and contribute to the invasive phenotype of cancer cells. Reports on Progress in Physics, 2019, 82, 064602.	8.1	157
918	Density Based Characterization of Mechanical Cues on Cancer Cells Using Magnetic Levitation. Advanced Healthcare Materials, 2019, 8, e1801517.	3.9	21

#	Article	IF	Citations
919	The relationship between metastatic potential and in vitro mechanical properties of osteosarcoma cells. Molecular Biology of the Cell, 2019, 30, 887-898.	0.9	39
920	Universal Kinetics of the Onset of Cell Spreading on Substrates of Different Stiffness. Biophysical Journal, 2019, 116, 551-559.	0.2	16
921	Physical Plasma Membrane Perturbation Using Subcellular Optogenetics Drives Integrin-Activated Cell Migration. ACS Synthetic Biology, 2019, 8, 498-510.	1.9	15
922	Brain-stiffness-mimicking tilapia collagen gel promotes the induction of dorsal cortical neurons from human pluripotent stem cells. Scientific Reports, 2019, 9, 3068.	1.6	37
923	Application of convolutional neural networks to breast biopsies to delineate tissue correlates of mammographic breast density. Npj Breast Cancer, 2019, 5, 43.	2.3	12
924	Regulation and Directing Stem Cell Fate by Tissue Engineering Functional Microenvironments: Scaffold Physical and Chemical Cues. Stem Cells International, 2019, 2019, 1-16.	1.2	60
925	Actin shells control buckling and wrinkling of biomembranes. Soft Matter, 2019, 15, 9647-9653.	1.2	16
926	Spa-RQ: an Image Analysis Tool to Visualise and Quantify Spatial Phenotypes Applied to Non-Small Cell Lung Cancer. Scientific Reports, 2019, 9, 17613.	1.6	5
927	Tissue transglutaminase regulates tumor cell tensional homeostasis by increasing contractility. Journal of Cell Science, 2020, 133, .	1.2	5
928	GIRK1 triggers multiple cancer-related pathways in the benign mammary epithelial cell line MCF10A. Scientific Reports, 2019, 9, 19277.	1.6	4
929	Recent advances in the development of nature-derived photocrosslinkable biomaterials for 3D printing in tissue engineering. Biomaterials Research, 2019, 23, 18.	3.2	49
930	The effect of opine on matrix metalloproteinase expression in mice with breast cancer. Archives of Physiology and Biochemistry, 2019, , 1-6.	1.0	0
931	Matrix stiffness mediates stemness characteristics via activating the Yesâ€associated protein in colorectal cancer cells. Journal of Cellular Biochemistry, 2019, 120, 2213-2225.	1.2	40
932	2D Gelatin Methacrylate Hydrogels with Tunable Stiffness for Investigating Cell Behaviors. ACS Applied Bio Materials, 2019, 2, 570-576.	2.3	15
933	Smart hydrogels with high tunability of stiffness as a biomimetic cell carrier. Cell Biology International, 2019, 43, 84-97.	1.4	26
935	Circulating Tumor Cells: Enrichment and Genomic Applications. , 2019, , 73-87.		0
936	Studying YAP-Mediated 3D Morphogenesis Using Fish Embryos and Human Spheroids. Methods in Molecular Biology, 2019, 1893, 167-181.	0.4	1
937	The role of extracellular matrix stiffness in regulating cytoskeletal remodeling via vinculin in synthetic smooth muscle cells. Biochemical and Biophysical Research Communications, 2019, 508, 302-307.	1.0	20

#	Article	IF	Citations
938	Dynamic control of hydrogel crosslinking via sortase-mediated reversible transpeptidation. Acta Biomaterialia, 2019, 83, 83-95.	4.1	57
939	Cellular morphologies, motility, and epithelialâ€“mesenchymal transition of breast cancer cells incubated on electrospun polymeric fiber substrates in hypoxia. Materials Today Chemistry, 2019, 11, 29-41.	1.7	2
940	Dying under pressure: cellular characterisation and in vivo functions of cell death induced by compaction. Biology of the Cell, 2019, 111, 51-66.	0.7	26
941	Polysaccharides for tissue engineering: Current landscape and future prospects. Carbohydrate Polymers, 2019, 205, 601-625.	5.1	104
942	ACVR1^{R206H} FOP mutation alters mechanosensing and tissue stiffness during heterotopic ossification. Molecular Biology of the Cell, 2019, 30, 17-29.	0.9	30
943	Enrichment and Identification of Neural Stem Cells in Neurospheres Using Rigidity-Tunable Gels. Tissue Engineering - Part A, 2019, 25, 427-436.	1.6	3
944	Biodegradable Thermomagnetically Responsive Soft Untethered Grippers. ACS Applied Materials & Interfaces, 2019, 11, 151-159.	4.0	70
945	Biomechanical Analysis of Porcine Cartilage Elasticity. Annals of Biomedical Engineering, 2019, 47, 202-212.	1.3	3
946	3D models of the bone marrow in health and disease: yesterday, today, and tomorrow. MRS Communications, 2019, 9, 37-52.	0.8	29
947	Cancer invasion into musculature: Mechanics, molecules and implications. Seminars in Cell and Developmental Biology, 2019, 93, 36-45.	2.3	35
948	Acute compressive stress activates RHO/ROCK-mediated cellular processes. Small GTPases, 2020, 11, 354-370.	0.7	45
949	Solid stress, competition for space and cancer: The opposing roles of mechanical cell competition in tumour initiation and growth. Seminars in Cancer Biology, 2020, 63, 69-80.	4.3	57
950	S100A4: a novel partner for heat shock protein 47 in antler stem cells and insight into the calcium ion-induced conformational changes. Journal of Biomolecular Structure and Dynamics, 2020, 38, 2068-2079.	2.0	2
951	Multiscale modeling of solid stress and tumor cell invasion in response to dynamic mechanical microenvironment. Biomechanics and Modeling in Mechanobiology, 2020, 19, 577-590.	1.4	9
952	Peptide gels of fully-defined composition and mechanics for probing cell-cell and cell-matrix interactions in vitro. Matrix Biology, 2020, 85-86, 15-33.	1.5	44
953	Scaffold stiffness influences breast cancer cell invasion via EGFR-linked Mena upregulation and matrix remodeling. Matrix Biology, 2020, 85-86, 80-93.	1.5	56
954	Roles of Interactions Between Cells and Extracellular Matrices for Cell Migration and Matrix Remodeling. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2020, , 247-282.	0.7	1
955	Amoeboid swimming in a compliant channel. Soft Matter, 2020, 16, 1599-1613.	1.2	11

#	Article	IF	Citations
956	Investigation on the Structure and Mechanical Properties of Highly Tunable Elastomeric Silk Fibroin Hydrogels Cross-Linked by Î³-Ray Radiation. ACS Applied Bio Materials, 2020, 3, 721-734.	2.3	32
957	The TRPV4-AKT axis promotes oral squamous cell carcinoma cell proliferation via CaMKII activation. Laboratory Investigation, 2020, 100, 311-323.	1.7	37
958	Impact of breast cancer cellsÂ´ secretome on the brain metastatic niche remodeling. Seminars in Cancer Biology, 2020, 60, 294-301.	4.3	20
959	Characterization of the elastic properties of extracellular matrix models by atomic force microscopy. Methods in Cell Biology, 2020, 156, 59-83.	0.5	7
960	Photodynamic Therapy and the Biophysics of the Tumor Microenvironment. Photochemistry and Photobiology, 2020, 96, 232-259.	1.3	55
961	3D-microenvironments initiate TCF4 expression rescuing nuclear Î²-catenin activity in MCF-7 breast cancer cells. Acta Biomaterialia, 2020, 103, 153-164.	4.1	11
962	Effect of correlation between traction forces on tensional homeostasis in clusters of endothelial cells and fibroblasts. Journal of Biomechanics, 2020, 100, 109588.	0.9	5
963	How tissue fluidity influences brain tumor progression. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 128-134.	3.3	103
964	Mechanics-Controlled Dynamic Cell Niches Guided Osteogenic Differentiation of Stem Cells via Preserved Cellular Mechanical Memory. ACS Applied Materials & Interfaces, 2020, 12, 260-274.	4.0	30
965	Cells with Higher Cortical Membrane Tension Are More Sensitive to Lysis by Biosurfactant Di-rhamnolipids. ACS Biomaterials Science and Engineering, 2020, 6, 352-357.	2.6	4
966	Fluids and their mechanics in tumour transit: shaping metastasis. Nature Reviews Cancer, 2020, 20, 107-124.	12.8	232
967	Fluid flow-induced activation of subcellular AMPK and its interaction with FAK and Src. Archives of Biochemistry and Biophysics, 2020, 679, 108208.	1.4	14
968	General cellular durotaxis induced with cell-scale heterogeneity of matrix-elasticity. Biomaterials, 2020, 230, 119647.	5.7	29
969	Inhibition of Rho-Associated Kinase Suppresses Medulloblastoma Growth. Cancers, 2020, 12, 73.	1.7	10
970	Native T1 Mapping Magnetic Resonance Imaging as a Quantitative Biomarker for Characterization of the Extracellular Matrix in a Rabbit Hepatic Cancer Model. Biomedicines, 2020, 8, 412.	1.4	7
971	Mechanically stressed cancer microenvironment: Role in pancreatic cancer progression. Biochimica Et Biophysica Acta: Reviews on Cancer, 2020, 1874, 188418.	3.3	21
972	COL2A1 Is a Novel Biomarker of Melanoma Tumor Repopulating Cells. Biomedicines, 2020, 8, 360.	1.4	8
973	A new agarose-based microsystem to investigate cell response to prolonged confinement. Lab on A Chip, 2020, 20, 4016-4030.	3.1	8

#	Article	IF	Citations
974	Editorial: Forces in Biology - Cell and Developmental Mechanobiology and Its Implications in Disease. Frontiers in Cell and Developmental Biology, 2020, 8, 598179.	1.8	3
975	Progress in the mechanical modulation of cell functions in tissue engineering. Biomaterials Science, 2020, 8, 7033-7081.	2.6	36
976	The Arp2/3 complex is critical for colonisation of the mouse skin by melanoblasts. Development (Cambridge), 2020, 147, .	1.2	9
977	Dangerous Liaisons: Circulating Tumor Cells (CTCs) and Cancer-Associated Fibroblasts (CAFs). Cancers, 2020, 12, 2861.	1.7	49
978	Concepts of extracellular matrix remodelling in tumour progression and metastasis. Nature Communications, 2020, 11, 5120.	5.8	1,004
980	Mechanoactivation of NOX2-generated ROS elicits persistent TRPM8 Ca ²⁺ signals that are inhibited by oncogenic KRas. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26008-26019.	3.3	19
981	Improved delivery and antimetastatic effects of Stattic by self-assembled amphiphilic pendant-dendron copolymer micelles in breast cancer cell lines. Journal of Drug Delivery Science and Technology, 2020, 59, 101905.	1.4	4
982	Enhanced Biocompatibility and Differentiation Capacity of Mesenchymal Stem Cells on Poly(dimethylsiloxane) by Topographically Patterned Dopamine. ACS Applied Materials & Interfaces, 2020, 12, 44393-44406.	4.0	16
983	Tensional homeostasis at different length scales. Soft Matter, 2020, 16, 6946-6963.	1.2	21
984	In vivo microscopy reveals macrophage polarization locally promotes coherent microtubule dynamics in migrating cancer cells. Nature Communications, 2020, 11, 3521.	5.8	17
985	Focal adhesion displacement magnitude is a unifying feature of tensional homeostasis. Acta Biomaterialia, 2020, 113, 372-379.	4.1	7
986	TRPV4 Increases the Expression of Tight Junction Protein-Encoding Genes via XBP1 in Mammary Epithelial Cells. Animals, 2020, 10, 1174.	1.0	9
987	Improving Bioprinted Volumetric Tumor Microenvironments In Vitro. Trends in Cancer, 2020, 6, 745-756.	3.8	38
988	Ascites-induced compression alters the peritoneal microenvironment and promotes metastatic success in ovarian cancer. Scientific Reports, 2020, 10, 11913.	1.6	25
989	Tumorigenesis and Biomaterials. , 2020, , 813-822.		0
990	Photocurable Hyperbranched Polymer Medical Glue for Water-Resistant Bonding. Biomacromolecules, 2020, 21, 5222-5232.	2.6	16
991	The Human Epidermal Basement Membrane: A Shaped and Cell Instructive Platform That Aging Slowly Alters. Biomolecules, 2020, 10, 1607.	1.8	53
992	Matrix Pore Size Governs Escape of Human Breast Cancer Cells from a Microtumor to an Empty Cavity. IScience, 2020, 23, 101673.	1.9	29

#	Article	IF	Citations
993	Development of Porous and Flexible PTMC Membranes for In Vitro Organ Models Fabricated by Evaporation-Induced Phase Separation. Membranes, 2020, 10, 330.	1.4	12
994	Biomatrices that mimic the cancer extracellular environment. , 2020, , 91-106.		2
995	â€œCaught in the netâ€: the extracellular matrix of the bone marrow in normal hematopoiesis and leukemia. Experimental Hematology, 2020, 89, 13-25.	0.2	22
996	The Roles of Tissue Rigidity and Its Underlying Mechanisms in Promoting Tumor Growth. Cancer Investigation, 2020, 38, 445-462.	0.6	6
997	Biomimetic Cell-Laden MeHA Hydrogels for the Regeneration of Cartilage Tissue. Polymers, 2020, 12, 1598.	2.0	6
998	The promise of single-cell mechanophenotyping for clinical applications. Biomicrofluidics, 2020, 14, 031301.	1.2	21
999	Geometric Confinement Guides the Expression of Cancer Stem Cell Molecular Markers CD44 via Cell Traction Forces. ACS Biomaterials Science and Engineering, 2020, 6, 4623-4630.	2.6	3
1000	Role of MSC in the Tumor Microenvironment. Cancers, 2020, 12, 2107.	1.7	73
1001	Corneal Stiffness and Collagen Cross-Linking Proteins in Glaucoma: Potential for Novel Therapeutic Strategy. Journal of Ocular Pharmacology and Therapeutics, 2020, 36, 582-594.	0.6	14
1002	How Reciprocal Interactions Between the Tumor Microenvironment and Ion Transport Proteins Drive Cancer Progression. Reviews of Physiology, Biochemistry and Pharmacology, 2020, , 1-38.	0.9	9
1003	The adenoviral protein E4orf4: a probing tool to decipher mechanical stress-induced nuclear envelope remodeling in tumor cells. Cell Cycle, 2020, 19, 2963-2981.	1.3	0
1004	Probing coordinated co-culture cancer related motility through differential micro-compartmentalized elastic substrates. Scientific Reports, 2020, 10, 18519.	1.6	3
1005	Identification of drivers of breast cancer invasion by secretome analysis: insight into CTGF signaling. Scientific Reports, 2020, 10, 17889.	1.6	14
1006	Simultaneous time-varying viscosity, elasticity, and mass measurements of single adherent cancer cells across cell cycle. Scientific Reports, 2020, 10, 12803.	1.6	19
1007	Supersensitive Layer-by-Layer 3D Cardiac Tissues Fabricated on a Collagen Culture Vessel Using Human-Induced Pluripotent Stem Cells. Tissue Engineering - Part C: Methods, 2020, 26, 493-502.	1.1	0
1008	A Possible Role of FZD10 Delivering Exosomes Derived from Colon Cancers Cell Lines in Inducing Activation of Epithelialâ€“Mesenchymal Transition in Normal Colon Epithelial Cell Line. International Journal of Molecular Sciences, 2020, 21, 6705.	1.8	15
1009	Exploring Diffusion and Cellular Uptake: Charged Gold Nanoparticles in an in Vitro Breast Cancer Model. ACS Applied Bio Materials, 2020, 3, 6992-7002.	2.3	21
1010	Harnessing the secreted extracellular matrix to engineer tissues. Nature Biomedical Engineering, 2020, 4, 357-363.	11.6	62

#	Article	IF	Citations
1011	Tracking Single Cells Motility on Different Substrates. Methods and Protocols, 2020, 3, 56.	0.9	5
1012	Ion Channels in Cancer: Orchestrators of Electrical Signaling and Cellular Crosstalk. Reviews of Physiology, Biochemistry and Pharmacology, 2020, , 103-133.	0.9	9
1013	EGFR as a stable marker of prostate cancer dissemination to bones. British Journal of Cancer, 2020, 123, 1767-1774.	2.9	27
1014	Endocytosis frustration potentiates compression-induced receptor signalling. Journal of Cell Science, 2020, 133, .	1.2	11
1015	Reciprocal Interplay Between Fibrillar Collagens and Collagen-Binding Integrins: Implications in Cancer Progression and Metastasis. Frontiers in Oncology, 2020, 10, 1488.	1.3	61
1016	Proteoglycans as Mediators of Cancer Tissue Mechanics. Frontiers in Cell and Developmental Biology, 2020, 8, 569377.	1.8	28
1017	Forcing a growth factor response â€“ tissue-stiffness modulation of integrin signaling and crosstalk with growth factor receptors. Journal of Cell Science, 2020, 133, .	1.2	20
1018	Fabrication of Hollow Channels Surrounded by Gold Nanoparticles in Hydrogel by Femtosecond Laser Irradiation. Nanomaterials, 2020, 10, 2529.	1.9	2
1019	Biophysical and Epigenetic Regulation of Cancer Stemness, Invasiveness, and Immune Action. Current Tissue Microenvironment Reports, 2020, 1, 277-300.	1.3	7
1020	The Extracellular Matrix and Vesicles Modulate the Breast Tumor Microenvironment. Bioengineering, 2020, 7, 124.	1.6	17
1021	Mechanical Cues Affect Migration and Invasion of Cells From Three Different Directions. Frontiers in Cell and Developmental Biology, 2020, 8, 583226.	1.8	41
1022	Prediction of pathological complete response in breast cancer patients during neoadjuvant chemotherapy: Is shear wave elastography a useful tool in clinical routine?. European Journal of Radiology, 2020, 128, 109025.	1.2	14
1023	Identifying the Transcriptional Regulatory Network Associated With Extrathyroidal Extension in Papillary Thyroid Carcinoma by Comprehensive Bioinformatics Analysis. Frontiers in Genetics, 2020, 11, 453.	1.1	2
1024	As the endothelial cell reorients, its tensile forces stabilize. Journal of Biomechanics, 2020, 105, 109770.	0.9	7
1025	3D Printed Stackable Titer Plate Inserts Supporting Three Interconnected Tissue Models for Drug Transport Studies. Advanced Biology, 2020, 4, 1900289.	3.0	8
1026	The significance of stromal collagen organization in cancer tissue: An in-depth discussion of literature. Critical Reviews in Oncology/Hematology, 2020, 151, 102907.	2.0	30
1027	Key Regulatory miRNAs and their Interplay with Mechanosensing and Mechanotransduction Signaling Pathways in Breast Cancer Progression. Molecular Cancer Research, 2020, 18, 1113-1128.	1.5	8
1028	Mechanosensing of Mechanical Confinement by Mesenchymal-Like Cells. Frontiers in Physiology, 2020, 11, 365.	1.3	14

#	Article	IF	Citations
1029	Mechanical tumor microenvironment and transduction: cytoskeleton mediates cancer cell invasion and metastasis. International Journal of Biological Sciences, 2020, 16, 2014-2028.	2.6	92
1030	Conductive stretchable shape memory elastomers combining with electrical stimulation for synergistic osteogenic differentiation. Polymer Testing, 2020, 90, 106672.	2.3	13
1031	Heterogeneous Responses to Mechanical Force of Prostate Cancer Cells Inducing Different Metastasis Patterns. Advanced Science, 2020, 7, 1903583.	5.6	20
1032	The Physical Microenvironment of Tumors: Characterization and Clinical Impact. Biophysical Reviews and Letters, 2020, 15, 51-82.	0.9	3
1033	Tumor-stroma biomechanical crosstalk: a perspective on the role of caveolin-1 in tumor progression. Cancer and Metastasis Reviews, 2020, 39, 485-503.	2.7	11
1034	Intraperitoneal chemotherapy for peritoneal metastases: an expert opinion. Expert Opinion on Drug Delivery, 2020, 17, 511-522.	2.4	29
1035	Strategies and challenges to improve the performance of tumor-associated active targeting. Journal of Materials Chemistry B, 2020, 8, 3959-3971.	2.9	39
1036	Characterizing poroelasticity of biological tissues by spherical indentation: An improved theory for large relaxation. Journal of the Mechanics and Physics of Solids, 2020, 138, 103920.	2.3	18
1037	Rapid fabrication of collagen bundles mimicking tumor-associated collagen architectures. Acta Biomaterialia, 2020, 108, 128-141.	4.1	24
1038	A coupled mass transport and deformation theory of multi-constituent tumor growth. Journal of the Mechanics and Physics of Solids, 2020, 139, 103936.	2.3	22
1039	Matrix Stiffness Regulates Chemosensitivity, Stemness Characteristics, and Autophagy in Breast Cancer Cells. ACS Applied Bio Materials, 2020, 3, 4474-4485.	2.3	30
1040	Chemical carcinogen safety testing: OECD expert group international consensus on the development of an integrated approach for the testing and assessment of chemical non-genotoxic carcinogens. Archives of Toxicology, 2020, 94, 2899-2923.	1.9	72
1041	Topological features dictate the mechanics of the mammalian brains. International Journal of Mechanical Sciences, 2020, 187, 105914.	3.6	4
1042	Temperature Sensor with a Water-Dissolvable Ionic Gel for Ionic Skin. ACS Applied Materials & Interfaces, 2020, 12, 36449-36457.	4.0	59
1043	Osmotic Gradients in Epithelial Acini Increase Mechanical Tension across E-cadherin, Drive Morphogenesis, and Maintain Homeostasis. Current Biology, 2020, 30, 624-633.e4.	1.8	38
1044	Micro-strains in the extracellular matrix induce angiogenesis. Lab on A Chip, 2020, 20, 2776-2787.	3.1	19
1045	Highly sensitive and selective detection of cancer cell with an all-optical scheme. Laser Physics, 2020, 30, 085601.	0.6	0
1046	Morphomechanics of tumors. Current Opinion in Biomedical Engineering, 2020, 15, 51-58.	1.8	6

#	Article	IF	Citations
1048	A complementary energy approach accommodates scale differences in soft tissues. Journal of the Mechanics and Physics of Solids, 2020, 138, 103895.	2.3	5
1049	Feeling Things Out: Bidirectional Signaling of the Cellâ€“ECM Interface, Implications in the Mechanobiology of Cell Spreading, Migration, Proliferation, and Differentiation. Advanced Healthcare Materials, 2020, 9, e1901445.	3.9	70
1050	Biofabrication Strategies and Engineered In Vitro Systems for Vascular Mechanobiology. Advanced Healthcare Materials, 2020, 9, e1901255.	3.9	35
1051	Cellular uptake of collagens and implications for immune cell regulation in disease. Cellular and Molecular Life Sciences, 2020, 77, 3161-3176.	2.4	28
1052	Modulating Tumor Cell Functions by Tunable Nanopatterned Ligand Presentation. Nanomaterials, 2020, 10, 212.	1.9	1
1053	Towards extracellular matrix normalization for improved treatment of solid tumors. Theranostics, 2020, 10, 1960-1980.	4.6	68
1054	Tension in tumour cells keeps metabolism high. Nature, 2020, 578, 517-518.	13.7	10
1055	The Extracellular Matrix: An Accomplice in Gastric Cancer Development and Progression. Cells, 2020, 9, 394.	1.8	60
1056	Magnetic resonance elastography quantification of the solid-to-fluid transition of liver tissue due to decellularization. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 104, 103640.	1.5	16
1057	Triangular correlation (TrC) between cancer aggressiveness, cell uptake capability, and cell deformability. Science Advances, 2020, 6, eaax2861.	4.7	24
1058	Molecular regulation of TLR signaling in health and disease: mechano-regulation of macrophages and TLR signaling. Innate Immunity, 2020, 26, 15-25.	1.1	29
1059	Increased hydrostatic pressure induces nuclear translocation of DAF-16/FOXO in C.Âelegans. Biochemical and Biophysical Research Communications, 2020, 523, 853-858.	1.0	11
1060	Force-dependent extracellular matrix remodeling by early-stage cancer cells alters diffusion and induces carcinoma-associated fibroblasts. Biomaterials, 2020, 234, 119756.	5.7	44
1061	Shaping of the Tumor Microenvironment by Notch Signaling. Advances in Experimental Medicine and Biology, 2020, 1223, 1-16.	0.8	10
1062	Dependence of Membrane Tether Strength on Substrate Rigidity Probed by Single-Cell Force Spectroscopy. Journal of Physical Chemistry Letters, 2020, 11, 4173-4178.	2.1	5
1064	Matrix Metalloproteinasesâ€™ Role in Tumor Microenvironment. Advances in Experimental Medicine and Biology, 2020, 1245, 97-131.	0.8	60
1065	Principles of bioreactor design for tissue engineering. , 2020, , 179-203.		4
1066	Fluidity and elasticity form a concise set of viscoelastic biomarkers for breast cancer diagnosis based on Kelvinâ€“Voigt fractional derivative modeling. Biomechanics and Modeling in Mechanobiology, 2020, 19, 2163-2177.	1.4	16

#	Article	IF	Citations
1067	Association of extracellular matrix microarchitecture and three-dimensional collective invasion of cancer cells. Biotechnic and Histochemistry, 2020, 95, 605-612.	0.7	2
1068	Sporadic activation of an oxidative stressâ€“dependent NRF2-p53 signaling network in breast epithelial spheroids and premalignancies. Science Signaling, 2020, 13, .	1.6	25
1069	Three-dimensional models of breast cancerâ€“fibroblasts interactions. Experimental Biology and Medicine, 2020, 245, 879-888.	1.1	9
1070	â€œLooping Inâ€•Mechanics: Mechanobiologic Regulation of the Nucleus and the Epigenome. Advanced Healthcare Materials, 2020, 9, e2000030.	3.9	16
1071	Crosstalk between mechanotransduction and metabolism. Nature Reviews Molecular Cell Biology, 2021, 22, 22-38.	16.1	193
1072	Applications of Surface Modification Technologies in Nanomedicine for Deep Tumor Penetration. Advanced Science, 2021, 8, 2002589.	5.6	124
1073	Integrin-mediated adhesion and mechanosensing in the mammary gland. Seminars in Cell and Developmental Biology, 2021, 114, 113-125.	2.3	12
1074	The Integrin Interactome. Methods in Molecular Biology, 2021, , .	0.4	0
1075	Durotaxis: The Hard Path from InÂVitro to InÂVivo. Developmental Cell, 2021, 56, 227-239.	3.1	63
1076	Deriving Polarimetry Feature Parameters to Characterize Microstructural Features in Histological Sections of Breast Tissues. IEEE Transactions on Biomedical Engineering, 2021, 68, 881-892.	2.5	46
1077	Probing tissue mechanics at the cellular-length scale in cancer microenvironments. , 2021, , 71-103.		2
1078	Dynamics of Cell Shaping and Migration on the Matrix with Cell-scale Stiffness-heterogeneity. Seibutsu Butsuri, 2021, 61, 152-156.	0.0	0
1079	Rapid 3D Bioprinting of Glioblastoma Model Mimicking Native Biophysical Heterogeneity. Small, 2021, 17, e2006050.	5.2	55
1080	Tissue Imaging and Quantification Relying on Endogenous Contrast. Advances in Experimental Medicine and Biology, 2021, 3233, 257-288.	0.8	1
1082	Mechanotransduction, nanotechnology, and nanomedicine. Journal of Biomedical Research, 2021, 35, 284.	0.7	7
1083	A nonlinear elastic description of cell preferential orientations over a stretched substrate. Biomechanics and Modeling in Mechanobiology, 2021, 20, 631-649.	1.4	10
1084	Physics approaches to the spatial distribution of immune cells in tumors. Reports on Progress in Physics, 2021, 84, 022601.	8.1	10
1085	Impact of tumor-parenchyma biomechanics on liver metastatic progression: a multi-model approach. Scientific Reports, 2021, 11, 1710.	1.6	17

#	Article	IF	Citations
1087	Decellularized Extracellular Matrix (ECM) as a Model to Study Fibrotic ECM Mechanobiology. Methods in Molecular Biology, 2021, 2299, 237-261.	0.4	2
1089	Skin Blistering and Collagens: From Bench to Therapies. Biology of Extracellular Matrix, 2021, , 257-288.	0.3	1
1090	Quantifying nanotherapeutic penetration using a hydrogel-based microsystem as a new 3D in vitro platform. Lab on A Chip, 2021, 21, 2495-2510.	3.1	15
1091	Microfluidic Reconstitution of Tumor Microenvironment for Nanomedical Applications. Advanced Healthcare Materials, 2021, 10, 2002122.	3.9	4
1092	Multicellular 3D Models to Study Tumour-Stroma Interactions. International Journal of Molecular Sciences, 2021, 22, 1633.	1.8	34
1093	Shear Wave Elastography of Invasive Ductal Carcinoma: Correlations between Shear Wave Velocity and Histological Prognostic Factors. Current Medical Science, 2021, 41, 173-179.	0.7	1
1094	Understanding and Regulating Cell-Matrix Interactions Using Hydrogels of Designable Mechanical Properties. Journal of Biomedical Nanotechnology, 2021, 17, 149-168.	0.5	4
1095	A Novel Method for Polyacrylamide Gel Preparation Using N-hydroxysuccinimide-acrylamide Ester to Study Cell-Extracellular Matrix Mechanical Interactions. Frontiers in Materials, 2021, 8, .	1.2	13
1097	Cancer-Associated Fibroblast Subgroups Showing Differential Promoting Effect on HNSCC Progression. Cancers, 2021, 13, 654.	1.7	19
1098	Extracellular matrix density regulates the formation of tumour spheroids through cell migration. PLoS Computational Biology, 2021, 17, e1008764.	1.5	29
1099	3D Cell Culture: Recent Development in Materials with Tunable Stiffness. ACS Applied Bio Materials, 2021, 4, 2233-2250.	2.3	45
1100	The prognostic value of Piezo1 in breast cancer patients with various clinicopathological features. Anti-Cancer Drugs, 2021, 32, 448-455.	0.7	7
1101	External cues to drive B cell function towards immunotherapy. Acta Biomaterialia, 2021, 133, 222-230.	4.1	13
1102	Stiffness increases with myofibroblast content and collagen density in mesenchymal high grade serous ovarian cancer. Scientific Reports, 2021, 11, 4219.	1.6	37
1103	Biomaterial Properties Modulating Bone Regeneration. Macromolecular Bioscience, 2021, 21, e2000365.	2.1	39
1104	Nanocomposite hyaluronic acid-based hydrogel for the treatment of esophageal fistulas. Materials Today Bio, 2021, 10, 100109.	2.6	9
1105	Mechanical homeostasis in tissue equivalents: a review. Biomechanics and Modeling in Mechanobiology, 2021, 20, 833-850.	1.4	36
1106	Extracellular matrix in multicellular aggregates acts as a pressure sensor controlling cell proliferation and motility. ELife, 2021, 10, .	2.8	35

#	Article	IF	Citations
1107	Development of an In Vitro Airway Epithelialâ€“Endothelial Cell Culture Model on a Flexible Porous Poly(Trimethylene Carbonate) Membrane Based on Calu-3 Airway Epithelial Cells and Lung Microvascular Endothelial Cells. Membranes, 2021, 11, 197.	1.4	13
1108	Manipulation of the Nanoscale Presentation of Integrin Ligand Produces Cancer Cells with Enhanced Stemness and Robust Tumorigenicity. Nano Letters, 2021, 21, 3225-3236.	4.5	28
1109	An Oxygen-Concentration-Controllable Multiorgan Microfluidic Platform for Studying Hypoxia-Induced Lung Cancer-Liver Metastasis and Screening Drugs. ACS Sensors, 2021, 6, 823-832.	4.0	28
1110	Endoscopy-assisted magnetic navigation of biohybrid soft microrobots with rapid endoluminal delivery and imaging. Science Robotics, 2021, 6, .	9.9	164
1111	Lysyl oxidase engineered lipid nanovesicles for the treatment of triple negative breast cancer. Scientific Reports, 2021, 11, 5107.	1.6	37
1112	Denture induced mechanotransduction can contribute to oral carcinogenesis. Medical Hypotheses, 2021, 148, 110507.	0.8	6
1113	The Dynamic Interaction between Extracellular Matrix Remodeling and Breast Tumor Progression. Cells, 2021, 10, 1046.	1.8	16
1114	An Organotypic Mammary Duct Model Capturing Matrix Mechanics-Dependent Ductal Carcinoma In Situ Progression. Tissue Engineering - Part A, 2021, 27, 454-466.	1.6	3
1115	The pathological significance of LOXL2 in pre-metastatic niche formation of HCC and its related molecular mechanism. European Journal of Cancer, 2021, 147, 63-73.	1.3	24
1116	The Role of Tumor Microenvironment in Cancer Metastasis: Molecular Mechanisms and Therapeutic Opportunities. Cancers, 2021, 13, 2053.	1.7	143
1117	High-throughput microscopy reveals the impact of multifactorial environmental perturbations on colorectal cancer cell growth. GigaScience, 2021, 10, .	3.3	7
1118	Cell Force-Driven Basement Membrane Disruption Fuels EGF- and Stiffness-Induced Invasive Cell Dissemination from Benign Breast Gland Acini. International Journal of Molecular Sciences, 2021, 22, 3962.	1.8	10
1119	Biomechanical Properties of Cancer Cells. Cells, 2021, 10, 887.	1.8	30
1121	A novel 4D cell culture mimicking stomach peristalsis altered gastric cancer spheroids growth and malignance. Biofabrication, 2021, 13, 035034.	3.7	7
1123	Suppression of Esophageal Squamous Cell Carcinoma Development by Mechanosensitive Protein Piezo1 Downregulation. ACS Omega, 2021, 6, 10196-10206.	1.6	16
1125	Nanosensors for single cell mechanical interrogation. Biosensors and Bioelectronics, 2021, 179, 113086.	5.3	20
1126	Biomechanical modelling of cancer: Agentâ€based forceâ€based models of solid tumours within the context of the tumour microenvironment. Computational and Systems Oncology, 2021, 1, e1018.	1.1	13
1127	Enhanced Electroactivity, Mechanical Properties, and Printability through the Addition of Graphene Oxide to Photo-Cross-linkable Gelatin Methacryloyl Hydrogel. ACS Biomaterials Science and Engineering, 2021, 7, 2279-2295.	2.6	29

#	Article	IF	Citations
1128	Collagen XI alpha 1 chain, a potential therapeutic target for cancer. FASEB Journal, 2021, 35, e21603.	0.2	17
1129	Emerging technologies provide insights on cancer extracellular matrix biology and therapeutics. IScience, 2021, 24, 102475.	1.9	9
1130	Biomechanical regulation of breast cancer metastasis and progression. Scientific Reports, 2021, 11, 9838.	1.6	10
1131	Airway-On-A-Chip: Designs and Applications for Lung Repair and Disease. Cells, 2021, 10, 1602.	1.8	25
1132	Optimized alginate-based 3D printed scaffolds as a model of patient derived breast cancer microenvironments in drug discovery. Biomedical Materials (Bristol), 2021, 16, 045046.	1.7	12
1133	Investigation on the Composition of Agaroseâ€“Collagen I Blended Hydrogels as Matrices for the Growth of Spheroids from Breast Cancer Cell Lines. Pharmaceutics, 2021, 13, 963.	2.0	19
1135	Biophysical interactions between components of the tumor microenvironment promote metastasis. Biophysical Reviews, 2021, 13, 339-357.	1.5	19
1136	Fascin1 empowers YAP mechanotransduction and promotes cholangiocarcinoma development. Communications Biology, 2021, 4, 763.	2.0	6
1137	Surface stiffness depended gingival mesenchymal stem cell sensitivity to oxidative stress. Free Radical Biology and Medicine, 2021, 169, 62-73.	1.3	8
1138	Cytokine engineering for targeted cancer immunotherapy. Current Opinion in Chemical Biology, 2021, 62, 43-52.	2.8	36
1139	3D In Vitro Models for Investigating the Role of Stiffness in Cancer Invasion. ACS Biomaterials Science and Engineering, 2023, 9, 3729-3741.	2.6	41
1140	Fibroblasts and macrophages: Collaborators in tissue homeostasis. Immunological Reviews, 2021, 302, 86-103.	2.8	29
1141	Protein Hydrogels: The Swiss Army Knife for Enhanced Mechanical and Bioactive Properties of Biomaterials. Nanomaterials, 2021, 11, 1656.	1.9	27
1142	PI3K functions as a hub in mechanotransduction. Trends in Biochemical Sciences, 2021, 46, 878-888.	3.7	20
1143	Dynamic cellular biomechanics in responses to chemotherapeutic drug in hypoxia probed by atomic force spectroscopy. Oncotarget, 2021, 12, 1165-1177.	0.8	6
1144	Hyperthermic Intraperitoneal Chemotherapy: A Critical Review. Cancers, 2021, 13, 3114.	1.7	15
1145	Microtubule Acetylation Controls MDA-MB-231 Breast Cancer Cell Invasion through the Modulation of Endoplasmic Reticulum Stress. International Journal of Molecular Sciences, 2021, 22, 6018.	1.8	12
1146	Piezo 1 activation facilitates cholangiocarcinoma metastasis via Hippo/YAP signaling axis. Molecular Therapy - Nucleic Acids, 2021, 24, 241-252.	2.3	27

#	Article	IF	Citations
1147	Machine learning reveals mesenchymal breast carcinoma cell adaptation in response to matrix stiffness. PLoS Computational Biology, 2021, 17, e1009193.	1.5	10
1148	Implant Fibrosis and the Underappreciated Role of Myofibroblasts in the Foreign Body Reaction. Cells, 2021, 10, 1794.	1.8	53
1149	Mechanoresponsive metabolism in cancer cell migration and metastasis. Cell Metabolism, 2021, 33, 1307-1321.	7.2	127
1150	What do cells regulate in soft tissues on short time scales?. Acta Biomaterialia, 2021, 134, 348-356.	4.1	5
1151	Adhesion-mediated mechanosignaling forces mitohormesis. Cell Metabolism, 2021, 33, 1322-1341.e13.	7.2	65
1152	Immune Microenvironment Features and Dynamics in Hodgkin Lymphoma. Cancers, 2021, 13, 3634.	1.7	10
1153	Uniaxial stretching device for studying maturity-dependent morphological response of epithelial cell monolayers to tensile strain. Journal of Industrial and Engineering Chemistry, 2021, 99, 282-291.	2.9	2
1154	Cell orientation under stretch: Stability of a linear viscoelastic model. Mathematical Biosciences, 2021, 337, 108630.	0.9	7
1155	Extracellular Matrices and Cancer-Associated Fibroblasts: Targets for Cancer Diagnosis and Therapy?. Cancers, 2021, 13, 3466.	1.7	55
1156	T cell stiffness is enhanced upon formation of immunological synapse. ELife, 2021, 10, .	2.8	9
1157	3D Printed Nanocellulose Scaffolds as a Cancer Cell Culture Model System. Bioengineering, 2021, 8, 97.	1.6	13
1158	Rectal Tumor Stiffness Quantified by In Vivo Tomoelastography and Collagen Content Estimated by Histopathology Predict Tumor Aggressiveness. Frontiers in Oncology, 2021, 11, 701336.	1.3	8
1159	Tumor elastography and its association with cell-free tumor DNA in the plasma of breast tumor patients: a pilot study. Quantitative Imaging in Medicine and Surgery, 2021, 11, 3518-3534.	1.1	5
1160	Microengineered perfusable 3D-bioprinted glioblastoma model for in vivo mimicry of tumor microenvironment. Science Advances, 2021, 7, .	4.7	76
1162	Adipose Stroma Accelerates the Invasion and Escape of Human Breast Cancer Cells from an Engineered Microtumor. Cellular and Molecular Bioengineering, 2022, 15, 15-29.	1.0	4
1164	The Fibrillar Matrix: Novel Avenues for Breast Cancer Detection and Treatment. Engineering, 2021, 7, 1375-1380.	3.2	1
1165	Cell-specific drug targeting in the lung. Biochemical Pharmacology, 2021, 190, 114577.	2.0	9
1166	How Do Mechanics Guide Fibroblast Activity? Complex Disruptions during Emphysema Shape Cellular Responses and Limit Research. Bioengineering, 2021, 8, 110.	1.6	6

#	Article	IF	Citations
1167	Emerging Principles in the Transcriptional Control by YAP and TAZ. Cancers, 2021, 13, 4242.	1.7	25
1168	Advancing models of neural development with biomaterials. Nature Reviews Neuroscience, 2021, 22, 593-615.	4.9	60
1169	Matricellular Protein WISP2 Is an Endogenous Inhibitor of Collagen Linearization and Cancer Metastasis. Cancer Research, 2021, 81, 5666-5677.	0.4	9
1170	Mechanosensitive turnover of phosphoribosyl pyrophosphate synthetases regulates nucleotide metabolism. Cell Death and Differentiation, 2022, 29, 206-217.	5.0	6
1171	Two-cell interactions in autologous chemotaxis. Physical Review E, 2021, 104, 024404.	0.8	1
1172	Transwellâ€Integrated 2 Âµm Thick Transparent Polydimethylsiloxane Membranes with Controlled Pore Sizes and Distribution to Model the Bloodâ€Brain Barrier. Advanced Materials Technologies, 2021, 6, 2100138.	3.0	17
1173	Generation of anisotropic strain dysregulates wild-type cell division at the interface between host and oncogenic tissue. Current Biology, 2021, 31, 3409-3418.e6.	1.8	9
1175	Development of Cell-Derived Matrices for Three-Dimensional In Vitro Cancer Cell Models. ACS Applied Materials & Interfaces, 2021, 13, 44108-44123.	4.0	14
1176	Hippo/yes-associated protein signaling functions as a mechanotransducer in regulating vascular homeostasis. Journal of Molecular and Cellular Cardiology, 2022, 162, 158-165.	0.9	8
1177	Fiber finding algorithm using stepwise tracing to identify biopolymer fibers in noisy 3D images. Biophysical Journal, 2021, 120, 3860-3868.	0.2	4
1179	Technological perspectives on laser speckle micro-rheology for cancer mechanobiology research. Journal of Biomedical Optics, 2021, 26, .	1.4	0
1180	Mapping Mechanical Properties of the Tumor Microenvironment by Laser Speckle Rheological Microscopy. Cancer Research, 2021, 81, 4874-4885.	0.4	5
1181	Brick Strex: a robust device built of LEGO bricks for mechanical manipulation of cells. Scientific Reports, 2021, 11, 18520.	1.6	6
1182	Proteinâ€“Ligand Binding Molecular Details Revealed by Terahertz Optical Kerr Spectroscopy: A Simulation Study. Jacs Au, 2021, 1, 1788-1797.	3.6	3
1184	Detection of Lysyl Oxidase Activity in Tumor Extracellular Matrix Using Peptide-Functionalized Gold Nanoprobes. Cancers, 2021, 13, 4523.	1.7	3
1185	TAGLN mediated stiffness-regulated ovarian cancer progression via RhoA/ROCK pathway. Journal of Experimental and Clinical Cancer Research, 2021, 40, 292.	3.5	25
1186	The â€˜Yin and Yangâ€™ of Cancer Cell Growth and Mechanosensing. Cancers, 2021, 13, 4754.	1.7	10
1187	Optical coherence elastography of bilayer soft tissue based on harmonic surface wave spectroscopy. Optics and Lasers in Engineering, 2021, 145, 106667.	2.0	7

#	Article	IF	Citations
1188	Traction force microscopy â€“ Measuring the forces exerted by cells. Micron, 2021, 150, 103138.	1.1	40
1189	Electrohydrodynamic-direct-printed cell-laden microfibrous structure using alginate-based bioink for effective myotube formation. Carbohydrate Polymers, 2021, 272, 118444.	5.1	16
1190	Mechanical interactions of invasive cancer cells through their substrate evolve from additive to synergistic. Journal of Biomechanics, 2021, 129, 110759.	0.9	3
1191	Biomaterial control of adipose-derived stem/stromal cell differentiation. , 2022, , 313-346.		0
1192	Growth of tumor emboli within a vessel model reveals dependence on the magnitude of mechanical constraint. Integrative Biology (United Kingdom), 2021, 13, 1-16.	0.6	8
1193	A Universal Model for the Log-Normal Distribution of Elasticity in Polymeric Gels and Its Relevance to Mechanical Signature of Biological Tissues. Biology, 2021, 10, 64.	1.3	2
1194	A portable pen-sized instrumentation to measure stiffness of soft tissues in vivo. Scientific Reports, 2021, 11, 378.	1.6	6
1195	Mechanical Regulation of Epigenetic Modifications in Vascular Biology and Pathobiology. Cardiac and Vascular Biology, 2021, , 241-276.	0.2	1
1196	Towards understanding the messengers of extracellular space: Computational models of outside-in integrin reaction networks. Computational and Structural Biotechnology Journal, 2021, 19, 303-314.	1.9	9
1197	Dynamics and Physics of Integrin Activation in Tumor Cells by Nano-Sized Extracellular Ligands and Electromagnetic Fields. Methods in Molecular Biology, 2021, 2217, 197-233.	0.4	4
1198	Integrins and Cancer. , 2010, , 509-529.		3
1199	Cell-Generated Forces in Tissue Assembly, Function, and Disease. , 2011, , 47-74.		2
1200	Remodelling of the Extracellular Matrix: Implications for Cancer. , 2013, , 65-90.		2
1201	Rho-ROCK Signaling in Normal Physiology and as a Key Player in Shaping the Tumor Microenvironment. Advances in Experimental Medicine and Biology, 2020, 1223, 99-127.	0.8	17
1202	Modeling Prolactin Actions in Breast Cancer In Vivo: Insights from the NRL-PRL Mouse. Advances in Experimental Medicine and Biology, 2015, 846, 201-220.	0.8	21
1203	The Influence of Tissue Architecture on Drug Response: Anticancer Drug Development in High-Dimensional Combinatorial Microenvironment Platforms. , 2017, , 433-447.		1
1204	Estimating the Patient-Specific Relative Stiffness Between a Hepatic Lesion and the Liver Parenchyma. Lecture Notes in Computational Vision and Biomechanics, 2018, , 485-494.	0.5	1
1205	Matrix Metalloproteinases (MMPs) in Cancer Initiation and Progression. , 2017, , 207-236.		1

#	Article	IF	Citations
1206	FMNL2 regulates dynamics of fascin in filopodia. Journal of Cell Biology, 2020, 219, .	2.3	30
1207	Spectrin couples cell shape, cortical tension, and Hippo signaling in retinal epithelial morphogenesis. Journal of Cell Biology, 2020, 219, .	2.3	29
1223	Cancerâ€associated fibroblasts that restrain cancer progression: Hypotheses and perspectives. Cancer Science, 2020, 111, 1047-1057.	1.7	110
1224	The Role of Fluid Shear and Metastatic Potential in Breast Cancer Cell Migration. Journal of Biomechanical Engineering, 2020, 142, .	0.6	11
1225	Evaluating biomechanical properties of murine embryos using Brillouin microscopy and optical coherence tomography. Journal of Biomedical Optics, 2017, 22, 1.	1.4	46
1226	Regulation and Directing Stem Cell Fate by Tissue Engineering Functional Microenvironments: Scaffold Physical and Chemical Cues. Stem Cells International, 2019, 2019, 1-16.	1.2	84
1227	Fibroblast subtypes define a metastatic matrisome in breast cancer. JCI Insight, 2020, 5, .	2.3	23
1228	Physiologically activated mammary fibroblasts promote postpartum mammary cancer. JCI Insight, 2017, 2, e89206.	2.3	39
1229	Î±vÎ²3 Integrin drives fibroblast contraction and strain stiffening of soft provisional matrix during progressive fibrosis. JCI Insight, 2018, 3, .	2.3	78
1230	TGF-Î² upregulates miR-181a expression to promote breast cancer metastasis. Journal of Clinical Investigation, 2013, 123, 150-163.	3.9	264
1231	HIF1Î± and HIF2Î± independently activate SRC to promote melanoma metastases. Journal of Clinical Investigation, 2013, 123, 2078-2093.	3.9	132
1232	Lysyl hydroxylase 2 induces a collagen cross-link switch in tumor stroma. Journal of Clinical Investigation, 2015, 125, 1147-1162.	3.9	134
1233	YAP/TAZ functions and their regulation at a glance. Journal of Cell Science, 2020, 133, .	1.2	204
1234	Recent advances in tissue imaging for cancer research. F1000Research, 2019, 8, 1980.	0.8	16
1235	Stretch-Induced Stress Fiber Remodeling and the Activations of JNK and ERK Depend on Mechanical Strain Rate, but Not FAK. PLoS ONE, 2010, 5, e12470.	1.1	133
1236	Matrix Rigidity Induces Osteolytic Gene Expression of Metastatic Breast Cancer Cells. PLoS ONE, 2010, 5, e15451.	1.1	70
1237	Mesenchymal Stem Cell Responses to Bone-Mimetic Electrospun Matrices Composed of Polycaprolactone, Collagen I and Nanoparticulate Hydroxyapatite. PLoS ONE, 2011, 6, e16813.	1.1	86
1238	Dense Collagen-I Matrices Enhance Pro-Tumorigenic Estrogen-Prolactin Crosstalk in MCF-7 and T47D Breast Cancer Cells. PLoS ONE, 2015, 10, e0116891.	1.1	48

#	Article	IF	Citations
1239	Non-Muscle Myosin II Isoforms Have Different Functions in Matrix Rearrangement by MDA-MB-231 Cells. PLoS ONE, 2015, 10, e0131920.	1.1	9
1240	Fibroblast-Derived Extracellular Matrices: An Alternative Cell Culture System That Increases Metastatic Cellular Properties. PLoS ONE, 2015, 10, e0138065.	1.1	36
1241	Role of the tumor microenvironment in digestive neuroendocrine tumors. Endocrine-Related Cancer, 2018, 25, R519-R544.	1.6	13
1242	The Role of Stromal Proteolytic Systems in Cancer Progression (Review). Obshchaya Reanimatologiya, 2019, 15, 106-126.	0.2	1
1243	Hybrid Organic-Inorganic Scaffolding Biomaterials for Regenerative Therapies. Current Organic Chemistry, 2014, 18, 2299-2314.	0.9	36
1244	Bone: A Fertile Soil for Cancer Metastasis. Current Drug Targets, 2017, 18, 1281-1295.	1.0	27
1245	Enterolactone Suppresses Proliferation, Migration and Metastasis of MDA-MB-231 Breast Cancer Cells Through Inhibition of uPA Induced Plasmin Activation and MMPs-Mediated ECM Remodeling. Asian Pacific Journal of Cancer Prevention, 2017, 18, 905-915.	0.5	28
1246	Human organotypic brain slice culture: a novel framework for environmental research in neuro-oncology. Life Science Alliance, 2019, 2, e201900305.	1.3	38
1247	High Expression of Sphingosine Kinase 1 in Estrogen and Progesterone Receptors-Negative Breast Cancer. Iranian Journal of Pathology, 2017, 12, 218-224.	0.2	7
1248	Direct Interaction between Carcinoma Cells and Cancer Associated Fibroblasts for the Regulation of Cancer Invasion. Cancers, 2015, 7, 2054-2062.	1.7	98
1249	Fibroblasts Accelerate Formation and Improve Reproducibility of 3D Cellular Structures Printed with Magnetic Assistance. Research, 2020, 2020, 3970530.	2.8	5
1250	Cellular mechanotransduction. AIMS Biophysics, 2016, 3, 50-62.	0.3	37
1251	Significance of Intratumoral Fibrosis in Clear Cell Renal Cell Carcinoma. Journal of Pathology and Translational Medicine, 2018, 52, 323-330.	0.4	17
1252	Cancer: Tumor Iron Metabolism, Mitochondrial Dysfunction and Tumor Immunosuppression; â€œA Tight Partnershipâ€”Was Warburg Correct?â€• Journal of Cancer Therapy, 2012, 03, 278-311.	0.1	21
1253	Aberrant DNA methylation profile in cholangiocarcinoma. World Journal of Gastrointestinal Pathophysiology, 2010, 1, 23.	0.5	13
1254	Increased Expression of the Matrix-Modifying Enzyme Lysyl Oxidase-Like 2 in Aggressive Hepatocellular Carcinoma with Poor Prognosis. Gut and Liver, 2019, 13, 83-92.	1.4	19
1255	Regulation of Hippo signaling by actin remodeling. BMB Reports, 2018, 51, 151-156.	1.1	104
1256	Upstream paths for Hippo signaling in Drosophila organ development. BMB Reports, 2018, 51, 134-142.	1.1	9

#	Article	IF	Citations
1257	Force-mediated proinvasive matrix remodeling driven by tumor-associated mesenchymal stem-like cells in glioblastoma. BMB Reports, 2018, 51, 182-187.	1.1	20
1258	Novel Insights Into the Role of Inflammation in Promoting Breast Cancer Development. , 0, , .		1
1259	Stem cell topography splits growth and homeostatic functions in the fish gill. ELife, 2019, 8, .	2.8	16
1260	Tissue-resident macrophages promote extracellular matrix homeostasis in the mammary gland stroma of nulliparous mice. ELife, 2020, 9, .	2.8	63
1261	Atomic Force Microscopy to Study Mechanics of Living Mitotic Mammalian Cells. Japanese Journal of Applied Physics, 2011, 50, 08LA01.	0.8	3
1262	Atomic force microscopy reveals the mechanical properties of breast cancer bone metastases. Nanoscale, 2021, 13, 18237-18246.	2.8	8
1263	Mechanical Signaling in the Mammary Microenvironment: From Homeostasis to Cancer. Advances in Experimental Medicine and Biology, 2021, 1329, 399-417.	0.8	0
1264	3D Bioprinting of Cellâ€Laden Hydrogels for Improved Biological Functionality. Advanced Materials, 2022, 34, e2103691.	11.1	88
1265	Brain and Breast Cancer Cells with PTEN Loss of Function Reveal Enhanced Durotaxis and RHOB Dependent Amoeboid Migration Utilizing 3D Scaffolds and Aligned Microfiber Tracts. Cancers, 2021, 13, 5144.	1.7	4
1266	Fascin limits Myosin activity within Drosophila border cells to control substrate stiffness and promote migration. ELife, 2021, 10, .	2.8	25
1267	ECM stiffness-tuned exosomes drive breast cancer motility through thrombospondin-1. Biomaterials, 2021, 279, 121185.	5.7	54
1268	The Extracellular Matrix and the Growth and Survival of Tumors. , 2010, , 695-710.		0
1269	On the Application of Multiphasic Theories to the Problem of Cellsubstrate Mechanical Interactions. , 2011, , 189-224.		0
1271	Cell Mechanobiology in Regenerative Medicine. , 2012, , 1-16.		0
1272	The Multifunctional Roles of TGF-Î² in Navigating the Metastatic Cascade. , 2013, , 169-187.		0
1273	Mammographic Density: Intersection of Science, the Law, and Clinical Practice. American Society of Clinical Oncology Educational Book / ASCO American Society of Clinical Oncology Meeting, 2013, , e63-e69.	1.8	0
1275	Single-Cell Microfluidic Cytometry for Next-Generation High-Throughput Biology and Drug Discovery. , 2014, , 75-96.		1
1276	Traction Microscopy. , 2015, , 93-114.		0

#	Article	IF	Citations
1277	Microfluidic Modeling of Cancer Metastasis. , 2015, , 253-274.		0
1278	Three-Dimensional Quantification of Fiber-Like Structures in Biological Tissues. , 2017, , .		0
1282	Stiffness-Tuned Matrices for Tumor Cell Studies. Cancer Drug Discovery and Development, 2018, , 171-191.	0.2	0
1283	Metabolic Dysregulation in Environmental Carcinogenesis and Toxicology. , 0, , 511-606.		0
1284	The Present and Future of the Cancer Microenvironment Bioprinting. The Korean Journal of Urological Oncology, 2017, 15, 103-110.	0.1	0
1285	Enhanced Artificial Bee Colony Algorithm for Liver Cancer Analysis. Journal of Testing and Evaluation, 2018, 46, 851-864.	0.4	0
1288	Determination of the viscoelasticity of ovarian cancer cells using atomic force microscopy. , 2018, , .		0
1290	Decellularized Tissue Matrix-based 3D Tissue Modeling. Biomaterials Science Series, 2019, , 148-170.	0.1	0
1292	Precancerous niche (PCN), a product of fibrosis with remodeling by incessant chronic inflammation. 4open, 2019, 2, 11.	0.1	5
1297	Liver Magnetic Resonance Elastography: Clinical Use and Interpretation. , 2020, , 69-93.		2
1301	Microvalve bioprinting as a biofabrication tool to decipher tumor and endothelial cell crosstalk: Application to a simplified glioblastoma model. Bioprinting, 2021, 24, e00178.	2.9	4
1302	Understanding the Role of Fibroblasts following a 3D Tumoroid Implantation for Breast Tumor Formation. Bioengineering, 2021, 8, 163.	1.6	2
1303	Lipidomic landscape in cancer: Actionable insights for membraneâ€based therapy and diagnoses. Medicinal Research Reviews, 2022, 42, 983-1018.	5.0	22
1305	Rheological characterization of poly-dimethyl siloxane formulations with tunable viscoelastic properties. RSC Advances, 2021, 11, 35910-35917.	1.7	4
1307	Tumor Reversion Induced by Embryo and Oocyte Extracts. Human Perspectives in Health Sciences and Technology, 2020, , 275-285.	0.2	0
1308	Focal Adhesion Displacement Magnitude is a Unifying Feature of Tensional Homeostasis. SSRN Electronic Journal, 0, , .	0.4	0
1309	Metastasis: A Major Driver of Cancer Pathogenesis. , 2020, , 185-211.		0
1310	Cell Proliferation, Survival, Necrosis and Apoptosis. Biological and Medical Physics Series, 2020, , 743-824.	0.3	1

#	Article	IF	Citations
1312	Metabolic Pathways of Eukaryotes and Connection to Cell Mechanics. Biological and Medical Physics Series, 2020, , 825-891.	0.3	1
1313	Focal Adhesion Proteins Regulate Cellâ€“Matrix and Cellâ€“Cell Adhesion and Act as Force Sensors. Biological and Medical Physics Series, 2020, , 95-140.	0.3	0
1314	Target-Based Radiosensitization Strategies: Concepts and Companion Animal Model Outlook. Frontiers in Oncology, 2021, 11, 768692.	1.3	5
1315	Mechanosensing by TRPV4 mediates stiffness-induced foreign body response and giant cell formation. Science Signaling, 2021, 14, eabd4077.	1.6	19
1316	The effect of mechanical force in genitourinary malignancies. Expert Review of Anticancer Therapy, 2022, 22, 53-64.	1.1	1
1317	Comparative Study on Inhibition of Pancreatic Cancer Cells by Resveratrol Gold Nanoparticles and a Resveratrol Nanoemulsion Prepared from Grape Skin. Pharmaceutics, 2021, 13, 1871.	2.0	13
1318	Integrated Cells and Collagen Fibers Spatial Image Analysis. Frontiers in Bioinformatics, 2021, 1, .	1.0	3
1320	Quantitatively distinguishing typical pathological features between different breast tissues using polarimetry feature parameters. , 2020, , .		0
1321	In Vitro Mechanobiology of Glioma: Mimicking the Brain Blood Vessels and White Matter Tracts Invasion Paths. Neuromethods, 2021, , 159-196.	0.2	3
1325	Topographical changes in extracellular matrix: Activation of TLR4 signaling and solid tumor progression. Trends in Cancer Research, 2013, 9, 1-13.	1.6	23
1328	High Expression of Sphingosine Kinase 1 in Estrogen and Progesterone Receptors-Negative Breast Cancer. Iranian Journal of Pathology, 2017, 12, 218-224.	0.2	4
1329	OCT4B Isoform Promotes Anchorage-Independent Growth of Glioblastoma Cells. Molecules and Cells, 2019, 42, 135-142.	1.0	3
1330	Biodegradable and bioactive polymer/inorganic phase composites. , 2022, , 179-212.		1
1331	Organoid Technology: Current Standing and Future Perspectives. Stem Cells, 2021, 39, 1625-1649.	1.4	29
1332	Expression of mRNA vascular endothelial growth factor in hypospadias patients. BMC Urology, 2021, 21, 163.	0.6	1
1333	Inhibition of matrix stiffness relating integrin Î²1 signaling pathway inhibits tumor growth in vitro and in hepatocellular cancer xenografts. BMC Cancer, 2021, 21, 1276.	1.1	13
1334	Single cell imaging-based chromatin biomarkers for tumor progression. Scientific Reports, 2021, 11, 23041.	1.6	6
1335	Contact guidance via heterogeneity of substrate elasticity. Acta Biomaterialia, 2023, 163, 158-169.	4.1	5

#	Article	IF	Citations
1336	Insights Into the Regulation of Gynecological Inflammation-Mediated Malignancy by Metalloproteinases. Frontiers in Cell and Developmental Biology, 2021, 9, 780510.	1.8	2
1337	Anti-Malignant Effect of Tensile Loading to Adherens Junctions in Cutaneous Squamous Cell Carcinoma Cells. Frontiers in Cell and Developmental Biology, 2021, 9, 728383.	1.8	1
1338	PCBP1 regulates the transcription and alternative splicing of metastasisâ€'related genes and pathways in hepatocellular carcinoma. Scientific Reports, 2021, 11, 23356.	1.6	18
1339	Tough, Transparent, 3Dâ€Printable, and Selfâ€Healing Poly(ethylene glycol)â€Gel (PEGgel). Advanced Materials, 2022, 34, e2107791.	11.1	55
1340	Tissue Mechanics. , 2021, , 2-1-2-20.		1
1342	Emerging bioengineering strategies for regulating stem cell fate: Scaffold physical and biochemical cues. , 2022, , 125-156.		2
1343	Structural and morphological changes of breast cancer cells induced by iron(<scp>ii</scp>) complexes. Nanoscale, 2022, 14, 2735-2749.	2.8	8
1344	Fos regulates macrophage infiltration against surrounding tissue resistance by a cortical actin-based mechanism in Drosophila. PLoS Biology, 2022, 20, e3001494.	2.6	12
1345	Engineered in vitro models: mimicking in vivo physiology. , 2022, , 555-609.		0
1346	RhoAâ€ROCK competes with YAP to regulate amoeboid breast cancer cell migration in response to lymphaticâ€like flow. FASEB BioAdvances, 2022, 4, 342-361.	1.3	6
1347	Pressure Drives Rapid Burstâ€Like Coordinated Cellular Motion from 3D Cancer Aggregates. Advanced Science, 2022, 9, e2104808.	5.6	8
1348	Atomic force spectroscopyâ€based essay to evaluate oocyte postovulatory aging. Bioengineering and Translational Medicine, 2022, 7, .	3.9	6
1349	Matrix mechanics regulates epithelial defence against cancer by tuning dynamic localization of filamin. Nature Communications, 2022, 13, 218.	5.8	20
1350	Highly sensitive flexible modulus sensor for softness perception and clinical application. Journal of Micromechanics and Microengineering, 2022, 32, 035004.	1.5	2
1351	Compression enhances invasive phenotype and matrix degradation of breast cancer cells via Piezo1 activation. BMC Molecular and Cell Biology, 2022, 23, 1.	1.0	30
1352	Mechanical Properties in the Glioma Microenvironment: Emerging Insights and Theranostic Opportunities. Frontiers in Oncology, 2021, 11, 805628.	1.3	12
1353	Studying Activated Fibroblast Phenotypes and Fibrosisâ€Linked Mechanosensing Using 3D Biomimetic Models. Macromolecular Bioscience, 2022, 22, e2100450.	2.1	4
1354	Ultrasoundâ€Induced Mechanical Compaction in Acoustically Responsive Scaffolds Promotes Spatiotemporally Modulated Signaling in Triple Negative Breast Cancer. Advanced Healthcare Materials, 2022, 11, e2101672.	3.9	4

#	Article	IF	Citations
1355	Engineering in vitro immune-competent tissue models for testing and evaluation of therapeutics. Advanced Drug Delivery Reviews, 2022, 182, 114111.	6.6	15
1356	Molecular Tension Probes to Quantify Cell-Generated Mechanical Forces. Molecules and Cells, 2022, 45, 26-32.	1.0	2
1357	Stromal architecture directs early dissemination in pancreatic ductal adenocarcinoma. JCI Insight, 2022, 7, .	2.3	22
1358	Regulation of Tumor Invasion by the Physical Microenvironment: Lessons from Breast and Brain Cancer. Annual Review of Biomedical Engineering, 2022, 24, 29-59.	5.7	11
1359	Single-Molecule Force Probing of RGD-Binding Integrins on Pancreatic Cancer Cells. ACS Applied Materials & Interfaces, 2022, 14, 7671-7679.	4.0	8
1360	Alginate Coreâ€“Shell Capsules for 3D Cultivation of Adipose-Derived Mesenchymal Stem Cells. Bioengineering, 2022, 9, 66.	1.6	8
1361	Enhanced ASGR2 by microplastic exposure leads to resistance to therapy in gastric cancer. Theranostics, 2022, 12, 3217-3236.	4.6	13
1362	The Impact of Obesity, Adipose Tissue, and Tumor Microenvironment on Macrophage Polarization and Metastasis. Biology, 2022, 11, 339.	1.3	16
1363	Prolonged Exposure to Oxaliplatin during HIPEC Improves Effectiveness in a Preclinical Micrometastasis Model. Cancers, 2022, 14, 1158.	1.7	6
1364	The Role of Extracellular Matrix Proteins in Breast Cancer. Journal of Clinical Medicine, 2022, 11, 1250.	1.0	27
1365	Ret kinase-mediated mechanical induction of colon stem cells by tumor growth pressure stimulates cancer progression in vivo. Communications Biology, 2022, 5, 137.	2.0	4
1366	Chronic lung diseases: entangled in extracellular matrix. European Respiratory Review, 2022, 31, 210202.	3.0	21
1367	Origin of Cancer: Cell work is the Key to Understanding Cancer Initiation and Progression. Frontiers in Cell and Developmental Biology, 2022, 10, 787995.	1.8	8
1369	Photodynamic stromal depletion (PSD) improves tumor response to PDT and enhances nanoparticle drug delivery in 3D co-culture models of pancreatic ductal adenocarcinoma (PDAC). , 2022, , .		0
1370	CTHRC1 targeted by miR-30a-5p regulates cell adhesion, invasion and migration in lung adenocarcinoma. Journal of Cardiothoracic Surgery, 2022, 17, 46.	0.4	2
1371	Modification of Lipid-Based Nanoparticles: An Efficient Delivery System for Nucleic Acid-Based Immunotherapy. Molecules, 2022, 27, 1943.	1.7	22
1372	Confined migration promotes cancer metastasis through resistance to anoikis and increased invasiveness. ELife, 2022, 11, .	2.8	33
1373	Biophysics Role and Biomimetic Culture Systems of ECM Stiffness in Cancer EMT. Global Challenges, 2022, 6, .	1.8	5

#	Article	IF	Citations
1375	Deep learning Mueller matrix feature retrieval from a snapshot Stokes image. Optics Express, 2022, 30, 8676.	1.7	10
1376	Optical Imaging of Dynamic Collagen Processes in Health and Disease. Frontiers in Mechanical Engineering, 2022, 8, .	0.8	7
1377	The Mammary Gland: Basic Structure and Molecular Signaling during Development. International Journal of Molecular Sciences, 2022, 23, 3883.	1.8	32
1378	Current Advances in 3D Bioprinting for Cancer Modeling and Personalized Medicine. International Journal of Molecular Sciences, 2022, 23, 3432.	1.8	29
1379	Cancer-cell stiffening via cholesterol depletion enhances adoptive T-cell immunotherapy. Nature Biomedical Engineering, 2021, 5, 1411-1425.	11.6	96
1380	Fabricating Silicon Resonators for Analysing Biological Samples. Micromachines, 2021, 12, 1546.	1.4	2
1381	A tough nitric oxide-eluting hydrogel coating suppresses neointimal hyperplasia on vascular stent. Nature Communications, 2021, 12, 7079.	5.8	54
1382	Fabrication and characterization of osteogenic function of progenitor <scp>cellâ€laden</scp> gelatin microcarriers. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, 110, 1265-1278.	1.6	1
1383	Macrophage uptake of oxidized and acetylated low-density lipoproteins and generation of reactive oxygen species are regulated by linear stiffness of the growth surface. PLoS ONE, 2021, 16, e0260756.	1.1	8
1384	Cancer-associated fibroblasts promote oral squamous cell carcinoma progression through LOX-mediated matrix stiffness. Journal of Translational Medicine, 2021, 19, 513.	1.8	26
1385	Cancer cell development, migratory response, and the role of the tumor microenvironment in invasion and metastasis. , 2022, , 245-270.		0
1386	Spreading rates of bacterial colonies depend on substrate stiffness and permeability. , 2022, 1, .		12
1387	Micron-scale hysteresis measurement using dynamic optical coherence elastography. Biomedical Optics Express, 2022, 13, 3021.	1.5	2
1388	SEMA6A/RhoA/YAP axis mediates tumor-stroma interactions and prevents response to dual BRAF/MEK inhibition in BRAF-mutant melanoma. Journal of Experimental and Clinical Cancer Research, 2022, 41, 148.	3.5	10
1413	Generic self-stabilization mechanism for biomolecular adhesions under load. Nature Communications, 2022, 13, 2197.	5.8	6
1414	Construction of in vitro 3-D model for lung cancer-cell metastasis study. BMC Cancer, 2022, 22, 438.	1.1	5
1416	Mechanosensitive Changes in the Expression of Cancer-Associated Genes in Colorectal Cancer-Associated Fibroblasts. SSRN Electronic Journal, 0, , .	0.4	0
1417	Association of breast cancer risk, density, and stiffness: global tissue stiffness on breast MR elastography (MRE). Breast Cancer Research and Treatment, 2022, 194, 79-89.	1.1	9

#	Article	IF	Citations
1418	Engineered assistive materials for 3D bioprinting: support baths and sacrificial inks. Biofabrication, 2022, 14, 032001.	3.7	23
1419	Shear-Driven Solidification and Nonlinear Elasticity in Epithelial Tissues. Physical Review Letters, 2022, 128, 178001.	2.9	21
1420	Extracellular matrix in cancer progression and therapy. Medical Review, 2022, 2, 125-139.	0.3	10
1421	Matrix stiffness regulates macrophage polarization in atherosclerosis. Pharmacological Research, 2022, 179, 106236.	3.1	15
1422	Mapping Organizational Changes of Fiberâ€Like Structures in Disease Progression by Multiparametric, Quantitative Imaging. Laser and Photonics Reviews, 2022, 16, .	4.4	4
1423	The transcription factor PREP1(PKNOX1) regulates nuclear stiffness, the expression of LINC complex proteins and mechanotransduction. Communications Biology, 2022, 5, 456.	2.0	3
1425	Autoimmunity and Cancerâ€"Two Sides of the Same Coin. Frontiers in Immunology, 2022, 13, .	2.2	16
1426	Actomyosin contractility requirements and reciprocal cellâ€"tissue mechanics for cancer cell invasion through collagen-based channels. European Physical Journal E, 2022, 45, 48.	0.7	7
1427	Tumor microenvironment manipulation and cancer metastasis (taming the beast). , 2022, , 209-234.		0
1428	Accurate and Automatic Extraction of Cell Self-Rotation Speed in an ODEP Field Using an Area Change Algorithm. Micromachines, 2022, 13, 818.	1.4	0
1429	Role of Stiffness and Physico-Chemical Properties of Tumour Microenvironment on Breast Cancer Cell Stemness. SSRN Electronic Journal, 0, , .	0.4	1
1430	Overcoming the limitations of cytokines to improve cancer therapy. International Review of Cell and Molecular Biology, 2022, , 107-141.	1.6	7
1431	Mechanical regulation of chromatin and transcription. Nature Reviews Genetics, 2022, 23, 624-643.	7.7	64
1432	Differential Impacts on Tensional Homeostasis of Gastric Cancer Cells Due to Distinct Domain Variants of E-Cadherin. Cancers, 2022, 14, 2690.	1.7	2
1433	Effects of Different Long-Term Exercise Modalities on Tissue Stiffness. Sports Medicine - Open, 2022, 8, .	1.3	7
1436	Two types of critical cell density for mechanical elimination of abnormal cell clusters from epithelial tissue. PLoS Computational Biology, 2022, 18, e1010178.	1.5	0
1437	Cell motility in confluent tissues induced by substrate disorder. Physical Review Research, 2022, 4, .	1.3	1
1438	Cell Adhesion Behaviors on Spider Silk Fibers, Films, and Nanofibers. Langmuir, 2022, 38, 7766-7774.	1.6	4

#	Article	IF	Citations
1439	Photodynamic Stromal Depletion (<scp>PSD</scp>) Enhances Therapeutic Nanoparticle Delivery in <scp>3D</scp> Pancreatic Ductal Adenocarcinoma (<scp>PDAC</scp>) Tumor Models. Photochemistry and Photobiology, 0, , .	1.3	4
1441	Anillin governs mitotic rounding during early epidermal development. BMC Biology, 2022, 20, .	1.7	0
1442	Light-sheet photonic force optical coherence elastography for high-throughput quantitative 3D micromechanical imaging. Nature Communications, 2022, 13, .	5.8	6
1443	CAR T Cell Locomotion in Solid Tumor Microenvironment. Cells, 2022, 11, 1974.	1.8	15
1444	Value of shear wave elasticity in predicting the efficacy of neoadjuvant chemotherapy in different molecular types. Clinical Imaging, 2022, 89, 97-103.	0.8	5
1445	Identification of human ovarian cancer relying on collagen fiber coverage features by quantitative second harmonic generation imaging. Optics Express, 2022, 30, 25718.	1.7	8
1446	Novel Brain-Stiffness-Mimicking Matrix Gel Enables Comprehensive Invasion Analysis of 3D Cultured GBM Cells. Frontiers in Molecular Biosciences, 0, 9, .	1.6	2
1448	The Extracellular Matrix Stiffening: A Trigger of Prostate Cancer Progression and Castration Resistance?. Cancers, 2022, 14, 2887.	1.7	13
1449	Collagen XI Alpha 1 Chain, a Novel Therapeutic Target for Cancer Treatment. Frontiers in Oncology, 0, 12, .	1.3	5
1451	Stiffness Graded Electroactive Artificial Muscle. Advanced Functional Materials, 2022, 32, .	7.8	3
1452	Collagen gel contraction assays: From modelling wound healing to quantifying cellular interactions with three-dimensional extracellular matrices. European Journal of Cell Biology, 2022, 101, 151253.	1.6	17
1453	Exosome-mediated transduction of mechanical force regulates prostate cancer migration via microRNA. Biochemistry and Biophysics Reports, 2022, 31, 101299.	0.7	5
1454	Materials and extracellular matrix rigidity highlighted in tissue damages and diseases: Implication for biomaterials design and therapeutic targets. Bioactive Materials, 2023, 20, 381-403.	8.6	11
1455	YAP signaling is involved in WDR1-regulated proliferation and migration of non-small-cell lung cancer cells. Experimental Biology and Medicine, 2022, 247, 1619-1629.	1.1	2
1457	Autophagy: A Key Player in Pancreatic Cancer Progression and a Potential Drug Target. Cancers, 2022, 14, 3528.	1.7	14
1458	Temporal profile of angiogenesis and expression of extracellular matrix-related genes in rat brains following experimental intracerebral hemorrhage. Science Progress, 2022, 105, 003685042211155.	1.0	0
1460	Microfabricated Stretching Devices for Studying the Effects of Tensile Stress on Cells and Tissues. Biochip Journal, 2022, 16, 366-375.	2.5	7
1462	ARHGEF9 regulates melanoma morphogenesis in environments with diverse geometry and elasticity by promoting filopodial-driven adhesion. IScience, 2022, 25, 104795.	1.9	2

#	Article	IF	Citations
1465	Shining a Light on Cancerâ€"Photonics in Microfluidic Tumor Modeling and Biosensing. Advanced Healthcare Materials, 2023, 12, .	3.9	6
1466	Biomimetic virus-based soft niche for ischemic diseases. Biomaterials, 2022, 288, 121747.	5.7	8
1467	In situ monitoring of functional activity of extracellular matrix stiffness-dependent multidrug resistance protein 1 using scanning electrochemical microscopy. Chemical Science, 2022, 13, 10349-10360.	3.7	4
1468	Interplay among cell migration, shaping, and traction force on a matrix with cell-scale stiffness heterogeneity. Biophysics and Physicobiology, 2022, 19, n/a.	0.5	0
1469	Evaluation of breast stiffness pathology based on breast compression during mammography: Proposal for novel breast stiffness scale classification. Clinics, 2022, 77, 100100.	0.6	2
1470	Synthetic Retinoid Kills Drugâ€Resistant Cancer Stem Cells via Inducing RARÎ³â€Translocationâ€Mediated Tension Reduction and Chromatin Decondensation. Advanced Science, 2022, 9, .	5.6	6
1471	Soft substrates promote direct chemical reprogramming of fibroblasts into neurons. Acta Biomaterialia, 2022, 152, 255-272.	4.1	5
1472	Magnetomechanical Stress-Induced Colon Cancer Cell Growth Inhibition. Journal of Nanotheranostics, 2022, 3, 134-150.	1.7	0
1473	ECM-transmitted shear stress induces apoptotic cell extrusion in early breast gland development. Frontiers in Cell and Developmental Biology, 0, 10, .	1.8	3
1474	Role of stiffness and physico-chemical properties of tumour microenvironment on breast cancer cell stemness. Acta Biomaterialia, 2022, 152, 273-289.	4.1	9
1475	YAP/Smad3 promotes pathological extracellular matrix microenvironmentâ€induced bladder smooth muscle proliferation in bladder fibrosis progression. MedComm, 2022, 3, .	3.1	8
1477	Mechanotransductive Receptor Piezo1 as a Promising Target in the Treatment of Neurological Diseases. Current Neuropharmacology, 2023, 21, 2030-2035.	1.4	3
1478	How do cells stiffen?. Biochemical Journal, 2022, 479, 1825-1842.	1.7	4
1480	Collagen Remodeling along Cancer Progression Providing a Novel Opportunity for Cancer Diagnosis and Treatment. International Journal of Molecular Sciences, 2022, 23, 10509.	1.8	19
1481	Quantitative Micro-Elastography Enables In Vivo Detection of Residual Cancer in the Surgical Cavity during Breast-Conserving Surgery. Cancer Research, 2022, 82, 4093-4104.	0.4	6
1482	Contribution of mechanical homeostasis to epithelial-mesenchymal transition. Cellular Oncology (Dordrecht), 2022, 45, 1119-1136.	2.1	7
1483	Extracellular vesicles as central regulators of blood vessel function in cancer. Science Signaling, 2022, 15, .	1.6	6
1484	Extra Cellular Matrix Remodeling: An Adjunctive Target for Spinal Cord Injury and Intervertebral Disc Degeneration. Neurospine, 2022, 19, 632-645.	1.1	7

#	Article	IF	Citations
1485	Multimodal microscale mechanical mapping of cancer cells in complex microenvironments. Biophysical Journal, 2022, 121, 3586-3599.	0.2	13
1486	Quantification methodologies on organization and morphology features of fiber-like structures: A review. Journal of Innovative Optical Health Sciences, 0, , .	0.5	2
1487	Click chemistry functionalization of <scp>selfâ€assembling</scp> peptide hydrogels. Journal of Biomedical Materials Research - Part A, 0, , .	2.1	3
1488	TNS1: Emerging Insights into Its Domain Function, Biological Roles, and Tumors. Biology, 2022, 11, 1571.	1.3	6
1489	Nanomechanical properties of solid tumors as treatment monitoring biomarkers. Acta Biomaterialia, 2022, 154, 324-334.	4.1	8
1490	Mechanics of lung cancer: A finite element model shows strain amplification during early tumorigenesis. PLoS Computational Biology, 2022, 18, e1010153.	1.5	1
1491	Nuclear transport of STAT6 determines the matrix rigidity dependent M2 activation of macrophages. Biomaterials, 2022, 290, 121859.	5.7	6
1492	SUN2 regulates mitotic duration in response to extracellular matrix rigidity. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	11
1493	Physical confinement promotes mesenchymal trans-differentiation of invading transformed cells inÂvivo. IScience, 2022, 25, 105330.	1.9	2
1494	The Oncopig as an Emerging Model to Investigate Copper Regulation in Cancer. International Journal of Molecular Sciences, 2022, 23, 14012.	1.8	1
1495	Cellular enlargement - A new hallmark of aging?. Frontiers in Cell and Developmental Biology, 0, 10, .	1.8	8
1497	Evaluating the Impact of a Biomimetic Mechanical Environment on Cancer Invasion and Matrix Remodeling. Advanced Healthcare Materials, 2023, 12, .	3.9	6
1498	Boosting cancer immunotherapy by biomineralized nanovaccine with ferroptosis-inducing and photothermal properties. Biomaterials Science, 2023, 11, 518-532.	2.6	7
1499	Chapter 3. Mimicking Fibrous Topographical Features of the Tumor Microenvironment. Biomaterials Science Series, 2022, , 30-59.	0.1	0
1500	Chapter 5. Mimicking Chemical Features of the Tumor Microenvironment. Biomaterials Science Series, 2022, , 97-140.	0.1	0
1501	Improvement of the cell viability of hepatocytes cultured in three-dimensional collagen gels using pump-free perfusion driven by water level difference. Scientific Reports, 2022, 12, .	1.6	3
1503	The Study of the Extracellular Matrix in Chronic Inflammation: A Way to Prevent Cancer Initiation?. Cancers, 2022, 14, 5903.	1.7	3
1504	Predicting YAP/TAZ nuclear translocation in response to ECM mechanosensing. Biophysical Journal, 2023, 122, 43-53.	0.2	6

#	Article	IF	Citations
1505	Magnetic resonance elastography from fundamental soft-tissue mechanics to diagnostic imaging. Nature Reviews Physics, 2023, 5, 25-42.	11.9	18
1506	YAP/TAZ as master regulators in cancer: modulation, function and therapeutic approaches. Nature Cancer, 0, , .	5.7	10
1507	Collagen VI expression is negatively mechanosensitive in pancreatic cancer cells and supports the metastatic niche. Journal of Cell Science, 2022, 135, .	1.2	8
1508	Controlled release of growth factors using synthetic glycosaminoglycans in a modular macroporous scaffold for tissue regeneration. Communications Biology, 2022, 5, .	2.0	5
1509	Stimuliâ€Responsive Sponge for Imaging and Measuring Weak Compression Stresses. Advanced Science, 2023, 10, .	5.6	4
1510	Engineering chimeric antigen receptor T cells for solid tumour therapy. Clinical and Translational Medicine, 2022, 12, .	1.7	13
1511	A magnetically actuated, optically sensed tensile testing method for mechanical characterization of soft biological tissues. Science Advances, 2023, 9, .	4.7	4
1513	In Vitro Models of Ovarian Cancer: Bridging the Gap between Pathophysiology and Mechanistic Models. Biomolecules, 2023, 13, 103.	1.8	4
1514	Targeted mechanical forces enhance the effects of tumor immunotherapy by regulating immune cells in the tumor microenvironment. Cancer Biology and Medicine, 2023, 20, 44-55.	1.4	5
1515	Rho activation drives luminal collapse and eversion in epithelial acini. Biophysical Journal, 2023, 122, 3630-3645.	0.2	2
1516	Mechanics of the cellular microenvironment as probed by cells in vivo during zebrafish presomitic mesoderm differentiation. Nature Materials, 2023, 22, 135-143.	13.3	21
1518	Therapeutic Strategies to Overcome Fibrotic Barriers to Nanomedicine in the Pancreatic Tumor Microenvironment. Cancers, 2023, 15, 724.	1.7	2
1519	Hypo-osmolarity induces apoptosis resistance via TRPV2-mediated AKT-Bcl-2 pathway. American Journal of Physiology - Renal Physiology, 0, , .	1.6	0
1520	Microphysiological system recapitulating the pathophysiology of adipose tissue in obesity. Acta Biomaterialia, 2023, 159, 188-200.	4.1	5
1521	Positive, negative and controlled durotaxis. Soft Matter, 2023, 19, 2993-3001.	1.2	4
1522	Heterogeneity, crosstalk, and targeting of cancer-associated fibroblasts in cholangiocarcinoma. Hepatology, 0, Publish Ahead of Print, .	3.6	3
1523	Stiff matrix induces exosome secretion to promote tumour growth. Nature Cell Biology, 2023, 25, 415-424.	4.6	37
1524	Effects of simulated body fluid on the mechanical properties of polycarbonate polyurethane produced via material jetting. Polymer Testing, 2023, 120, 107977.	2.3	2

#	Article	IF	Citations
1525	Mechanical profile of human keratinocytes expressing HPV-18 oncogenes. Biochemical and Biophysical Research Communications, 2023, 657, 86-91.	1.0	0
1526	Enzymatically Crosslinked Collagen as a Versatile Matrix for In Vitro and In Vivo Coâ€Engineering of Blood and Lymphatic Vasculature. Advanced Materials, 2023, 35, .	11.1	6
1527	Stiffness-Modulation of Collagen Gels by Genipin-Crosslinking for Cell Culture. Gels, 2023, 9, 148.	2.1	3
1528	The mechanobiology of NK cells- â€˜Forcing NK to Senseâ€™ target cells. Biochimica Et Biophysica Acta: Reviews on Cancer, 2023, 1878, 188860.	3.3	2
1529	Fibroâ€Gel: An Allâ€Aqueous Hydrogel Consisting of Microfibers with Tunable Release Profile and its Application in Wound Healing. Advanced Materials, 2023, 35, .	11.1	14
1530	Pancreatic Cancer Presents Distinct Nanomechanical Properties During Progression. Annals of Biomedical Engineering, 2023, 51, 1602-1615.	1.3	7
1531	Extended preconditioning on soft matrices directs human mesenchymal stem cell fate via YAP transcriptional activity and chromatin organization. APL Bioengineering, 2023, 7, .	3.3	3
1532	Electrostatic Assembly of Multiarm PEG-Based Hydrogels as Extracellular Matrix Mimics: Cell Response in the Presence and Absence of RGD Cell Adhesive Ligands. ACS Biomaterials Science and Engineering, 2023, 9, 1362-1376.	2.6	3
1533	Soft topographical patterns trigger a stiffness-dependent cellular response to contact guidance. Materials Today Bio, 2023, 19, 100593.	2.6	2
1534	Molecular Mechanisms Driving Bone Metastasis of Cancers. , 2023, , 1-26.		0
1535	Mechanobiology of cancer cell responsiveness to chemotherapy and immunotherapy: Mechanistic insights and biomaterial platforms. Advanced Drug Delivery Reviews, 2023, 196, 114771.	6.6	2
1536	MR Elastography in Cancer. Investigative Radiology, 2023, 58, 578-586.	3.5	3
1537	Quantitative Image Analysis of Fibrillar Collagens Reveals Novel Diagnostic and Prognostic Biomarkers and Histotype-Dependent Aberrant Mechanobiology in Lung Cancer. Modern Pathology, 2023, 36, 100155.	2.9	2
1538	Therapeutic potential of TRPM8 channels in cancer treatment. Frontiers in Pharmacology, 0, 14, .	1.6	6
1540	A highly sensitive friction-imaging device based on cascading stimuli responsiveness. Materials Horizons, 0, , .	6.4	1
1541	Matrix Stiffness Influences Tubular Formation in Renal Tissue Engineering. Applied Sciences (Switzerland), 2023, 13, 4510.	1.3	2
1542	Key aspects for conception and construction of co-culture models of tumor-stroma interactions. Frontiers in Bioengineering and Biotechnology, 0, 11, .	2.0	2
1543	Synergistic effects of heating and traction during fibrous tissue elongation. Journal of Biomechanical Science and Engineering, 2023, , .	0.1	1

#	Article	IF	Citations
1544	Hallmarks of an Aging and Malignant Tumor Microenvironment and the Rise of Resilient Cell Subpopulations. Current Cancer Research, 2023, , 113-137.	0.2	0
1545	Physical Regulations of Cell Interactions and Metabolism in Tumor Microenvironments. Current Cancer Research, 2023, , 139-157.	0.2	0
1546	3D bioprinting tumor models mimic the tumor microenvironment for drug screening. Biomaterials Science, 2023, 11, 3813-3827.	2.6	5
1547	In vivo corneal elastography: A topical review of challenges and opportunities. Computational and Structural Biotechnology Journal, 2023, 21, 2664-2687.	1.9	4
1552	Cell characterization by nanonewton force sensing. , 2023, , 245-270.		1
1554	An Overview of Organ-on-a-Chip Models for Recapitulating Human Pulmonary Vascular Diseases. Advances in Experimental Medicine and Biology, 2023, , 265-272.	0.8	1
1558	Extracellular Matrix Remodeling on Cancer Progression. , 2023, , 1-18.		0
1562	Radiation Therapies in Cancer. Cancer Treatment and Research, 2023, , 59-77.	0.2	0
1583	Modelling HIF-PHD Dynamics and Related Downstream Pathways. SEMA SIMAI Springer Series, 2023, , 95-130.	0.4	0
1591	A cell cycle centric view of tumour dormancy. British Journal of Cancer, 2023, 129, 1535-1545.	2.9	4
1596	Redox signaling-mediated tumor extracellular matrix remodeling: pleiotropic regulatory mechanisms. Cellular Oncology (Dordrecht), 0, , .	2.1	1
1601	Fatty tissue as a modulator of cancer cell mechanics. , 2023, , .		0