Claudia Tanja Mierke

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5564869/publications.pdf

Version: 2024-02-01

120 papers	4,111 citations	101496 36 h-index	118793 62 g-index
128 all docs	128 docs citations	128 times ranked	5489 citing authors

#	Article	IF	Citations
1	Viscoelasticity, Like Forces, Plays a Role in Mechanotransduction. Frontiers in Cell and Developmental Biology, 2022, 10, 789841.	1.8	16
2	Mechanical properties and architecture of the extracellular matrix influence cell migration and invasion. Biophysical Journal, 2022, 121, 306a.	0.2	0
3	Editorial: Editorâ€™s Pick 2021: Highlights in Cell Adhesion and Migration. Frontiers in Cell and Developmental Biology, 2022, 10, 852781.	1.8	0
4	PINCH1 Promotes Fibroblast Migration in Extracellular Matrices and Influences Their Mechanophenotype. Frontiers in Cell and Developmental Biology, 2022, 10, .	1.8	5
5	Cell mechanical properties of human breast carcinoma cells depend on temperature. Scientific Reports, 2021, 11, 10771.	1.6	14
6	The Pertinent Role of Cell and Matrix Mechanics in Cell Adhesion and Migration. Frontiers in Cell and Developmental Biology, 2021, 9, 720494.	1.8	5
7	Bidirectional Mechanical Response Between Cells and Their Microenvironment. Frontiers in Physics, 2021, 9, .	1.0	11
8	Viscoelasticity Acts as a Marker for Tumor Extracellular Matrix Characteristics. Frontiers in Cell and Developmental Biology, 2021, 9, 785138.	1.8	24
9	Inhomogeneities in 3D Collagen Matrices Impact Matrix Mechanics and Cancer Cell Migration. Frontiers in Cell and Developmental Biology, 2020, 8, 593879.	1.8	22
10	Environmentally controlled magnetic nano-tweezer for living cells and extracellular matrices. Scientific Reports, 2020, 10, 13453.	1.6	32
11	Mechanical Cues Affect Migration and Invasion of Cells From Three Different Directions. Frontiers in Cell and Developmental Biology, 2020, 8, 583226.	1.8	41
12	Effect of Nuclear Stiffness on Cell Mechanics and Migration of Human Breast Cancer Cells. Frontiers in Cell and Developmental Biology, 2020, 8, 393.	1.8	74
13	Cell Mechanics Drives Migration Modes. Biophysical Reviews and Letters, 2020, 15, 1-34.	0.9	2
14	Editorial: Biomechanical Properties of Cells and Tissues and Their Impact on Cellular Adhesion and Motility. Frontiers in Cell and Developmental Biology, 2020, 8, 475.	1.8	1
15	Effect of PAK Inhibition on Cell Mechanics Depends on Rac1. Frontiers in Cell and Developmental Biology, 2020, 8, 13.	1.8	32
16	Biomechanical View on the Cytoplasm (and Cytosol) of Cells. Biological and Medical Physics Series, 2020, , 57-94.	0.3	0
17	Mechanical View on the Endoplasmatic Reticulum and Golgi. Biological and Medical Physics Series, 2020, , 191-262.	0.3	0
18	Cell Mechanics Drives Migration Modes. , 2020, , 101-134.		0

#	Article	IF	Citations
19	The Cell Nucleus and Its Compartments. Biological and Medical Physics Series, 2020, , 333-414.	0.3	0
20	Structure and Function of the Mitochondrion. Biological and Medical Physics Series, 2020, , 141-161.	0.3	0
21	Transcription for Protein Biosynthesis. Biological and Medical Physics Series, 2020, , 477-508.	0.3	0
22	Focus on Eukaryotic Cells. Biological and Medical Physics Series, 2020, , 35-56.	0.3	0
23	Translation and Post-translational Modifications in Protein Biosynthesis. Biological and Medical Physics Series, 2020, , 595-665.	0.3	1
24	Mechanical View on the Mitochondria. Biological and Medical Physics Series, 2020, , 163-189.	0.3	0
25	Lysosomes and Peroxisomes. Biological and Medical Physics Series, 2020, , 277-332.	0.3	1
26	Cell Proliferation, Survival, Necrosis and Apoptosis. Biological and Medical Physics Series, 2020, , 743-824.	0.3	1
27	Mechanical View on Vacuoles. Biological and Medical Physics Series, 2020, , 263-275.	0.3	0
28	Metabolic Pathways of Eukaryotes and Connection to Cell Mechanics. Biological and Medical Physics Series, 2020, , 825-891.	0.3	1
29	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
30	Splicing and Alternative Splicing and the Impact of Mechanics. Biological and Medical Physics Series, 2020, , 509-593.	0.3	0
31	The Definition of Biophysics: What Exactly is Biophysics?. Biological and Medical Physics Series, 2020, , 3-34.	0.3	1
32	Cell Cycle, DNA Replication, Centrosomes, Centrioles and Cell Division. Biological and Medical Physics Series, 2020, , 667-742.	0.3	0
33	The transmembrane protein fibrocystin/polyductin regulates cell mechanics and cell motility. Physical Biology, 2019, 16, 066006.	0.8	18
34	The Role of the Optical Stretcher Is Crucial in the Investigation of Cell Mechanics Regulating Cell Adhesion and Motility. Frontiers in Cell and Developmental Biology, 2019, 7, 184.	1.8	36
35	The Small GTPase Rac1 Increases Cell Surface Stiffness and Enhances 3D Migration Into Extracellular Matrices. Scientific Reports, 2019, 9, 7675.	1.6	55
36	Fast and reliable advanced two-step pore-size analysis of biomimetic 3D extracellular matrix scaffolds. Scientific Reports, 2019, 9, 8352.	1.6	44

#	Article	IF	Citations
37	Collagen networks determine viscoelastic properties of connective tissues yet do not hinder diffusion of the aqueous solvent. Soft Matter, 2019, 15, 3055-3064.	1.2	60
38	Design of biomimetic collagen matrices by reagent-free electron beam induced crosslinking: Structure-property relationships and cellular response. Materials and Design, 2019, 168, 107606.	3.3	40
39	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
40	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
41	Focal adhesion kinase activity is required for actomyosin contractility-based invasion of cells into dense 3D matrices. Scientific Reports, 2017, 7, 42780.	1.6	61
42	Integrin-linked kinase regulates cellular mechanics facilitating the motility in 3D extracellular matrices. Biochimica Et Biophysica Acta - Molecular Cell Research, 2017, 1864, 580-593.	1.9	26
43	Matrix and cellular mechanical properties are the driving factors for facilitating human cancer cell motility into 3D engineered matrices. Convergent Science Physical Oncology, 2017, 3, 044003.	2.6	53
44	Physical role of nuclear and cytoskeletal confinements in cell migration mode selection and switching. AIMS Biophysics, 2017, 4, 615-658.	0.3	8
45	Physical View on the Interactions Between Cancer Cells and the Endothelial Cell Lining During Cancer Cell Transmigration and Invasion. , 2016, , 19-42.		0
46	Physical view on migration modes. Cell Adhesion and Migration, 2015, 9, 367-379.	1.1	29
47	Physical View on the Interactions Between Cancer Cells and the Endothelial Cell Lining During Cancer Cell Transmigration and Invasion. Biophysical Reviews and Letters, 2015, 10, 1-24.	0.9	3
48	The phenotype of cancer cell invasion controlled by fibril diameter and pore size of 3D collagen networks. Biomaterials, 2015, 52, 367-375.	5.7	174
49	The fundamental role of mechanical properties in the progression of cancer disease and inflammation. Reports on Progress in Physics, 2014, 77, 076602.	8.1	113
50	Tetracycline-encapsulated P(3HB) microsphere-coated 45S5 BioglassÂ®-based scaffolds for bone tissue engineering. Journal of Materials Science: Materials in Medicine, 2013, 24, 2809-2817.	1.7	22
51	Phagocytized Beads Reduce the Î±5Î²1 Integrin Facilitated Invasiveness of Cancer Cells by Regulating Cellular Stiffness. Cell Biochemistry and Biophysics, 2013, 66, 599-622.	0.9	18
52	Invasive cancer cells and metastasis. Physical Biology, 2013, 10, 060301.	0.8	5
53	The role of focal adhesion kinase in the regulation of cellular mechanical properties. Physical Biology, 2013, 10, 065005.	0.8	48
54	Physical break-down of the classical view on cancer cell invasion and metastasis. European Journal of Cell Biology, 2013, 92, 89-104.	1.6	35

#	Article	IF	Citations
55	The integrin alphav beta3 increases cellular stiffness and cytoskeletal remodeling dynamics to facilitate cancer cell invasion. New Journal of Physics, 2013, 15, 015003.	1.2	34
56	LMX1B is Essential for the Maintenance of Differentiated Podocytes in Adult Kidneys. Journal of the American Society of Nephrology: JASN, 2013, 24, 1830-1848.	3.0	60
57	CD24 controls Src/STAT3 activity in human tumors. Cellular and Molecular Life Sciences, 2012, 69, 3863-3879.	2.4	69
58	Endothelial cell's biomechanical properties are regulated by invasive cancer cells. Molecular BioSystems, 2012, 8, 1639.	2.9	31
59	Nonlinear viscoelasticity of adherent cells is controlled by cytoskeletal tension. Soft Matter, 2011, 7, 3127-3132.	1.2	124
60	The GPI-Anchored Receptor CD24 Increases Cancer Cell Invasion through Enhanced Contractile Forces. Biophysical Journal, 2011, 100, 600a.	0.2	0
61	Invasive cancer cell lines exhibit biomechanical properties that are distinct from their noninvasive counterparts. Soft Matter, 2011, 7, 11488.	1.2	50
62	The Integrins Î±5Î²1 and Î±2Î²1 Enhance Cell Motility. Biophysical Journal, 2011, 100, 599a.	0.2	0
63	The Biomechanical Properties of 3d Extracellular Matrices and Embedded Cells Regulate the Invasiveness of Cancer Cells. Cell Biochemistry and Biophysics, 2011, 61, 217-236.	0.9	30
64	Cancer Cells Regulate Biomechanical Properties of Human Microvascular Endothelial Cells. Journal of Biological Chemistry, 2011, 286, 40025-40037.	1.6	94
65	Integrin Î±5Î²1 facilitates cancer cell invasion through enhanced contractile forces. Journal of Cell Science, 2011, 124, 369-383.	1.2	219
66	Contractile Forces Contribute to Increased Glycosylphosphatidylinositol-anchored Receptor CD24-facilitated Cancer Cell Invasion. Journal of Biological Chemistry, 2011, 286, 34858-34871.	1.6	65
67	Inefficient clearance of dying cells in patients with SLE: anti-dsDNA autoantibodies, MFG-E8, HMGB-1 and other players. Apoptosis: an International Journal on Programmed Cell Death, 2010, 15, 1098-1113.	2.2	82
68	The role of the tissue microenvironment in the regulation of cancer cell motility and invasion. Cell Communication and Signaling, 2010, 8, 22.	2.7	154
69	Neoplastic progression of the human breast cancer cell line G3S1 is associated with elevation of cytoskeletal dynamics and upregulation of MT1-MMP. International Journal of Oncology, 2010, 36, 833-9.	1.4	10
70	Vinculin Facilitates Cell Invasion into Three-dimensional Collagen Matrices. Journal of Biological Chemistry, 2010, 285, 13121-13130.	1.6	169
71	Fluctuations of cytoskeleton-bound microbeadsâ€"the effect of beadâ€"receptor binding dynamics. Journal of Physics Condensed Matter, 2010, 22, 194105.	0.7	16
72	Vinculin and Fak Facilite Cell Invasion in Dense 3D-Extracellualr Matrix Networks. Biophysical Journal, 2010, 98, 19a.	0.2	0

#	Article	IF	Citations
73	Nonlinear mechanical response of adherent cells measured by magnetic bead microrheology. Bone, 2010, 46, S50-S51.	1.4	0
74	Breast Cancer Cells Reduce the Stiffness of Endothelial Cells. Biophysical Journal, 2010, 98, 731a-732a.	0.2	1
75	The Vinculin-Î”In20/21 Mouse: Characteristics of a Constitutive, Actin-Binding Deficient Splice Variant of Vinculin. PLoS ONE, 2010, 5, e11530.	1.1	41
76	Magnetically Guided Titania Nanotubes for Siteâ€Selective Photocatalysis and Drug Release. Angewandte Chemie - International Edition, 2009, 48, 969-972.	7.2	210
77	Mechanische Experimente an lebenden Zellen. Perspektiven fÃ¼r die Krebsforschung. Biologie in Unserer Zeit, 2009, 39, 50-57.	0.3	0
78	The Role of Vinculin in the Regulation of the Mechanical Properties of Cells. Cell Biochemistry and Biophysics, 2009, 53, 115-126.	0.9	117
79	Vinculin Expression Regulates Tumor Cell Invasion In 3-D Matrices. Biophysical Journal, 2009, 96, 127a.	0.2	0
80	Anchorage of Vinculin to Lipid Membranes Influences Cell Mechanical Properties. Biophysical Journal, 2009, 97, 3105-3112.	0.2	38
81	Contractile Force Generation Enhanced Tumor Cell Invasion, But Decreased Tumor Growth. Biophysical Journal, 2009, 96, 197a.	0.2	0
82	TiO₂ nanotubes: photocatalyst for cancer cell killing. Physica Status Solidi - Rapid Research Letters, 2008, 2, 194-196.	1.2	100
83	Contractile forces in tumor cell migration. European Journal of Cell Biology, 2008, 87, 669-676.	1.6	154
84	Mechano-Coupling and Regulation of Contractility by the Vinculin Tail Domain. Biophysical Journal, 2008, 94, 661-670.	0.2	157
85	Breakdown of the Endothelial Barrier Function in Tumor Cell Transmigration. Biophysical Journal, 2008, 94, 2832-2846.	0.2	107
86	CD24 induces localization of Î²1 integrin to lipid raft domains. Biochemical and Biophysical Research Communications, 2008, 365, 35-41.	1.0	74
87	Role of the Endothelium during Tumor Cell Metastasis: Is the Endothelium a Barrier or a Promoter for Cell Invasion and Metastasis?. Journal of Biophysics, 2008, 2008, 1-13.	0.8	62
88	Up-Regulation of Rho/ROCK Signaling in Sarcoma Cells Drives Invasion and Increased Generation of Protrusive Forces. Molecular Cancer Research, 2008, 6, 1410-1420.	1.5	96
89	Vinculin contributes to Cell Invasion by Regulating Contractile Activation. AIP Conference Proceedings, 2008, , .	0.3	0
90	Sweet clearance: Involvement of cell surface glycans in the recognition of apoptotic cells. Autoimmunity, 2007, 40, 345-348.	1.2	16

#	Article	IF	Citations
91	Stress fluctuations and motion of cytoskeletal-bound markers. Physical Review E, 2007, 76, 011918.	0.8	89
92	Expression profiling reveals genes associated with transendothelial migration of tumor cells: A functional role for Î±vÎ²3 integrin. International Journal of Cancer, 2007, 121, 1910-1918.	2.3	57
93	Development of an in vitro system for the study of allergens and allergen-specific immunoglobulin E and immunoglobulin G: Fce receptor I supercross-linking is a possible new mechanism of immunoglobulin G-dependent enhancement of type I allergic reactions. Clinical and Experimental Allergy, 2005, 35, 774-781.	1.4	21
94	Human Endothelial Cells Regulate Survival and Proliferation of Human Mast Cells. Journal of Experimental Medicine, 2000, 192, 801-812.	4.2	101
95	Endothelial cells support survival of human intestinal mast cells by a direct cell-cell interaction. Gastroenterology, 2000, 118, A360-A361.	0.6	1
96	Stem cell factor stimulates adhesion of human intestinal mast cells to denatured collagens. Gastroenterology, 2000, 118, A1355.	0.6	0
97	Human intestinal mast cells produce IL-5in vitro upon IgE receptor cross-linking andin vivo in the course of intestinal inflammatory disease. European Journal of Immunology, 1999, 29, 1496-1503.	1.6	78
98	Identification and characterization of srp1, a gene of fission yeast encoding a RNA binding domain and a RS domain typical of SR splicing factors. Nucleic Acids Research, 1998, 26, 505-511.	6.5	43
99	Cellular stiffness and deformability. , 0, , .		1
100	Cytoskeletal remodeling dynamics. , 0, , 6-1-6-41.		1
101	Intermediate filaments and nuclear deformability during matrix invasion. , 0, , .		0
102	Initiation of a neoplasm or tumor. , 0, , .		0
103	The role of macrophages during cancer cell transendothelial migration. , 0, , .		0
104	Cytoskeletal remodeling dynamics. , 0, , .		0
105	Inflammation and cancer. , 0, , .		0
106	Role of the actin cytoskeleton during matrix invasion. , 0, , 7-1-7-87.		0
107	Microtubules during migration and matrix invasion. , 0, , 9-1-9-84.		2
108	Initiation of a neoplasm or tumor. , 0, , 1-1-2-121.		2

#	Article	IF	Citations
109	Nuclear deformability during migration and matrix invasion. , 0, , 10-1-10-90.		0
110	The role of endothelial cellâ€“cell adhesions. , 0, , 14-1-14-33.		0
111	The active role of the tumor stroma in regulating cell invasion. , 0, , 13-1-13-51.		0
112	The mechanical and structural properties of the microenvironment. , 0, , 11-1-11-98.		0
113	The impact of cells and substances within the extracellular matrix tissue on mechanical properties and cell invasion. , 0, , 12-1-12-70.		0
114	The mechanical properties of endothelial cells altered by aggressive cancer cells. , 0, , 15-1-15-18.		0
115	Intermediate filaments and nuclear deformability during matrix invasion. , 0, , 8-1-8-75.		0
116	Cellâ€“cell and cellâ€“matrix adhesion strength, local cell stiffness and forces. , 0, , 4-1-4-60.		1
117	Cell surface tension, the mobility of cell surface receptors and their location in specific regions. , 0, , 5-1-5-45.		0
118	Cellular stiffness and deformability. , 0, , 3-1-3-45.		0
119	Inflammation and cancer. , 0, , 2-1-2-51.		0
120	The role of macrophages during cancer cell transendothelial migration. , 0, , 16-1-16-27.		0