Konstantinos Konstantopoulos

List of Publications by Year
in descending order

46 papers	2,911 citations	236612 25 h-index	243296 44 g-index
49 all docs	49 docs citations	49 times ranked	4110 citing authors

#	Article	IF	Citations
1	Cancer cell motility: lessons from migration in confined spaces. Nature Reviews Cancer, 2017, 17, 131-140.	12.8	465
2	Water Permeation Drives Tumor Cell Migration in Confined Microenvironments. Cell, 2014, 157, 611-623.	13.5	416
3	Physical confinement alters tumor cell adhesion and migration phenotypes. FASEB Journal, 2012, 26, 4045-4056.	0.2	227
4	Cancer Cells in Transit: The Vascular Interactions of Tumor Cells. Annual Review of Biomedical Engineering, 2009, 11, 177-202.	5.7	193
5	Piezo2 channel regulates RhoA and actin cytoskeleton to promote cell mechanobiological responses. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1925-1930.	3.3	158
6	Distinct signaling mechanisms regulate migration in unconfined versus confined spaces. Journal of Cell Biology, 2013, 202, 807-824.	2.3	137
7	Confinement Sensing and Signal Optimization via Piezo1/PKA and Myosin II Pathways. Cell Reports, 2016, 15, 1430-1441.	2.9	137
8	A microfluidic assay for the quantification of the metastatic propensity of breast cancer specimens. Nature Biomedical Engineering, 2019, 3, 452-465.	11.6	85
9	Microtubules tune mechanotransduction through NOX2 and TRPV4 to decrease sclerostin abundance in osteocytes. Science Signaling, 2017, 10, .	1.6	80
10	HER2 missense mutations have distinct effects on oncogenic signaling and migration. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E6205-14.	3.3	69
11	Confinement hinders motility by inducing RhoA-mediated nuclear influx, volume expansion, and blebbing. Journal of Cell Biology, 2019, 218, 4093-4111.	2.3	64
12	Receptorâ€“ligand binding: â€˜catchâ€™ bonds finally caught. Current Biology, 2003, 13, R611-R613.	1.8	61
13	The importance of water and hydraulic pressure in cell dynamics. Journal of Cell Science, 2020, 133, .	1.2	57
14	Cell sensing and decision-making in confinement: The role of TRPM7 in a tug of war between hydraulic pressure and cross-sectional area. Science Advances, 2019, 5, eaaw7243.	4.7	56
15	The fluid shear stress sensor TRPM7 regulates tumor cell intravasation. Science Advances, 2021, 7, .	4.7	56
16	By activating matrix metalloproteinase-7, shear stress promotes chondrosarcoma cell motility, invasion and lung colonization. Oncotarget, 2015, 6, 9140-9159.	0.8	48
17	Interplay of the physical microenvironment, contact guidance, and intracellular signaling in cell decision making. FASEB Journal, 2016, 30, 2161-2170.	0.2	43
18	Dorsoventral polarity directs cell responses to migration track geometries. Science Advances, 2020, 6, eaba6505.	4.7	39

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19	A microfluidic cell-migration assay for the prediction of progression-free survival and recurrence time of patients with glioblastoma. Nature Biomedical Engineering, 2021, 5, 26-40.	11.6	38
20	Bioengineering paradigms for cell migration in confined microenvironments. Current Opinion in Cell Biology, 2014, 30, 41-50.	2.6	37
21	A Direct Podocalyxinâ€“Dynamin-2 Interaction Regulates Cytoskeletal Dynamics to Promote Migration and Metastasis in Pancreatic Cancer Cells. Cancer Research, 2019, 79, 2878-2891.	0.4	36
22	Cancer cells display increased migration and deformability in pace with metastatic progression. FASEB Journal, 2020, 34, 9307-9315.	0.2	33
23	By suppressing the expression of anterior pharynxâ€defectiveâ€1Î± and â€1Î² and inhibiting the aggregation of Î²â€amyloid protein, magnesium ions inhibit the cognitive decline of amyloid precursor protein/presenilin 1 transgenic mice. FASEB Journal, 2015, 29, 5044-5058.	0.2	32
24	Class 3 semaphorins induce F-actin reorganization in human dendritic cells: Role in cell migration. Journal of Leukocyte Biology, 2016, 100, 1323-1334.	1.5	32
25	Time-lapse lens-free imaging of cell migration in diverse physical microenvironments. Lab on A Chip, 2016, 16, 3304-3316.	3.1	29
26	The Role of Cyclooxygenase-2, Interleukin-1Î² and Fibroblast Growth Factor-2 in the Activation of Matrix Metalloproteinase-1 in Sheared-Chondrocytes and Articular Cartilage. Scientific Reports, 2015, 5, 10412.	1.6	27
27	Knockdown of Î±2,3-Sialyltransferases Impairs Pancreatic Cancer Cell Migration, Invasion and E-selectin-Dependent Adhesion. International Journal of Molecular Sciences, 2020, 21, 6239.	1.8	27
28	Distinct Kinetic and Molecular Requirements Govern CD44 Binding to Hyaluronan versus Fibrin(ogen). Biophysical Journal, 2012, 103, 415-423.	0.2	23
29	Kidney epithelial cells are active mechano-biological fluid pumps. Nature Communications, 2022, 13, 2317.	5.8	23
30	Dimensional Control of Cancer Cell Migration. Biophysical Journal, 2013, 104, 279-280.	0.2	21
31	Interleukin-1Î² and cyclic AMP mediate the invasion of sheared chondrosarcoma cells via a matrix metalloproteinase-1-dependent mechanism. Biochimica Et Biophysica Acta - Molecular Cell Research, 2014, 1843, 923-933.	1.9	21
32	Hydraulic resistance induces cell phenotypic transition in confinement. Science Advances, 2021, 7, .	4.7	17
33	Eâ€selectinâ€mediated rolling facilitates pancreatic cancer cell adhesion to hyaluronic acid. FASEB Journal, 2017, 31, 5078-5086.	0.2	16
34	Local 3D matrix confinement determines division axis through cell shape. Oncotarget, 2016, 7, 6994-7011.	0.8	16
35	Myosin 10 Regulates Invasion, Mitosis, and Metabolic Signaling in Glioblastoma. IScience, 2020, 23, 101802.	1.9	14
36	Giant obscurins regulate the PI3K cascade in breast epithelial cells via direct binding to the PI3K/p85 regulatory subunit. Oncotarget, 2016, 7, 45414-45428.	0.8	14

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37	Giant obscurin regulates migration and metastasis via RhoA-dependent cytoskeletal remodeling in pancreatic cancer. Cancer Letters, 2022, 526, 155-167.	3.2	13
38	Characterization of Monobody Scaffold Interactions with Ligand via Force Spectroscopy and Steered Molecular Dynamics. Scientific Reports, 2015, 5, 8247.	1.6	11
39	TrkA overexpression in non-tumorigenic human breast cell lines confers oncogenic and metastatic properties. Breast Cancer Research and Treatment, 2020, 179, 631-642.	1.1	10
40	Distinct kinetic and mechanical properties govern mucin 16- and podocalyxin-mediated tumor cell adhesion to E- and L-selectin in shear flow. Oncotarget, 2015, 6, 24842-24855.	0.8	10
41	Sarcomeric deficits underlie MYBPC1-associated myopathy with myogenic tremor. JCI Insight, 2021, 6, .	2.3	8
42	Hematogenous Metastasis: Roles of CD44v and Alternative Sialofucosylated Selectin Ligands. Advances in Experimental Medicine and Biology, 2011, 705, 601-619.	0.8	4
43	Exposing Cell-Itary Confinement: Understanding the Mechanisms of Confined Single Cell Migration. Advances in Experimental Medicine and Biology, 2018, 1092, 139-157.	0.8	2
44	Intrinsic epigenetic control of angiogenesis in induced pluripotent stem cell-derived endothelium regulates vascular regeneration. Npj Regenerative Medicine, 2022, 7, 28.	2.5	2
45	Preface to Special Issue: â€œGlycomechanics: Sugar Coating Blood Cellâ€“Endothelial Interactions in Shear Flowâ€• Annals of Biomedical Engineering, 2012, 40, 764-765.	1.3	0
46	The Interplay of Osmotic Engine Model and Actin Polymerization in Confined Cell Migration. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2018, WCP2018, SY87-1.	0.0	0