Michael R King

List of Publications by Year
in descending order

113	4,089	94269 37	138251 58
papers	citations	h-index	g-index

132	132	132	5419
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Targeted drug delivery to circulating tumor cells via platelet membrane-functionalized particles. Biomaterials, 2016, 76, 52-65.	5.7	234
2	TRAIL-coated leukocytes that kill cancer cells in the circulation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 930-935.	3.3	182
3	Computational and Experimental Models of Cancer Cell Response to Fluid Shear Stress. Frontiers in Oncology, 2013, 3, 44.	1.3	158
4	Fluid shear stress sensitizes cancer cells to receptor-mediated apoptosis via trimeric death receptors. New Journal of Physics, 2013, 15, 015008.	1.2	143
5	Multiparticle Adhesive Dynamics. Interactions between Stably Rolling Cells. Biophysical Journal, 2001, 81, 799-813.	0.2	118
6	Cooperative Effects of Matrix Stiffness and Fluid Shear Stress on Endothelial Cell Behavior. Biophysical Journal, 2015, 108, 471-478.	0.2	118
7	Regulation of ATP utilization during metastatic cell migration by collagen architecture. Molecular Biology of the Cell, 2018, 29, 1-9.	0.9	118
8	Platelet Adhesive Dynamics. Part I: Characterization of Platelet Hydrodynamic Collisions and Wall Effects. Biophysical Journal, 2008, 95, 2539-2555.	0.2	94
9	Microtube Device for Selectin-Mediated Capture of Viable Circulating Tumor Cells from Blood. Clinical Chemistry, 2012, 58, 846-853.	1.5	92
10	Lamin A/C deficiency reduces circulating tumor cell resistance to fluid shear stress. American Journal of Physiology - Cell Physiology, 2015, 309, C736-C746.	2.1	84
11	Circulating Tumor Cells: Diagnostic and Therapeutic Applications. Annual Review of Biomedical Engineering, 2018, 20, 329-352.	5.7	79
12	Rafting Down the Metastatic Cascade: The Role of Lipid Rafts in Cancer Metastasis, Cell Death, and Clinical Outcomes. Cancer Research, 2021, 81, 5-17.	0.4	78
13	Genetic engineering of platelets to neutralize circulating tumor cells. Journal of Controlled Release, 2016, 228, 38-47.	4.8	75
14	Safe Recombinant Outer Membrane Vesicles that Display M2e Elicit Heterologous Influenza Protection. Molecular Therapy, 2017, 25, 989-1002.	3.7	75
15	Continuously perfused microbubble array for 3D tumor spheroid model. Biomicrofluidics, 2011, 5, 24110.	1.2	72
16	E-selectin liposomal and nanotube-targeted delivery of doxorubicin to circulating tumor cells. Journal of Controlled Release, 2012, 160, 609-617.	4.8	72
17	Physical Biology in Cancer. 3. The role of cell glycocalyx in vascular transport of circulating tumor cells. American Journal of Physiology - Cell Physiology, 2014, 306, C89-C97.	2.1	70
18	Mechanical Shedding of L-selectin from the Neutrophil Surface during Rolling on Sialyl Lewis x under Flow. Journal of Biological Chemistry, 2007, 282, 4812-4820.	1.6	69

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19	Super natural killer cells that target metastases in the tumor draining lymph nodes. Biomaterials, 2016, 77, 66-76.	5.7	67
20	Phenotypic Switch in Blood: Effects of Pro-Inflammatory Cytokines on Breast Cancer Cell Aggregation and Adhesion. PLoS ONE, 2013, 8, e54959.	1.1	67
21	Microenvironment of Tumor-Draining Lymph Nodes: Opportunities for Liposome-Based Targeted Therapy. International Journal of Molecular Sciences, 2014, 15, 20209-20239.	1.8	65
22	TRAIL-coated leukocytes that prevent the bloodborne metastasis of prostate cancer. Journal of Controlled Release, 2016, 223, 215-223.	4.8	62
23	Delivery of apoptotic signal to rolling cancer cells: A novel biomimetic technique using immobilized TRAIL and Eâ€selectin. Biotechnology and Bioengineering, 2009, 102, 1692-1702.	1.7	61
24	Fluid Shear Stress Increases Neutrophil Activation via Platelet-Activating Factor. Biophysical Journal, 2014, 106, 2243-2253.	0.2	59
25	Engineering of Exosomes to Target Cancer Metastasis. Cellular and Molecular Bioengineering, 2020, 13, 1-16.	1.0	58
26	Cancer associated fibroblasts confer shear resistance to circulating tumor cells during prostate cancer metastatic progression. Oncotarget, 2020, 11, 1037-1050.	0.8	57
27	Three-dimensional simulations of a platelet-shaped spheroid near a wall in shear flow. Physics of Fluids, 2005, 17, 113302.	1.6	54
28	A physical sciences network characterization of circulating tumor cell aggregate transport. American Journal of Physiology - Cell Physiology, 2015, 308, C792-C802.	2.1	54
29	Nano-to-Micro Scale Dynamics of P-Selectin Detachment from Leukocyte Interfaces. III. Numerical Simulation of Tethering under Flow. Biophysical Journal, 2005, 88, 1676-1683.	0.2	53
30	Microfabrication of cavities in polydimethylsiloxane using DRIE silicon molds. Lab on A Chip, 2007, 7, 1660.	3.1	51
31	Adhesion receptors as therapeutic targets for circulating tumor cells. Frontiers in Oncology, 2012, 2, 79.	1.3	50
32	Minimal dosing of leukocyte targeting TRAIL decreases triple-negative breast cancer metastasis following tumor resection. Science Advances, 2019, 5, eaaw4197.	4.7	50
33	Activation of Piezo1 sensitizes cells to TRAIL-mediated apoptosis through mitochondrial outer membrane permeability. Cell Death and Disease, 2019, 10, 837.	2.7	47
34	Surfactant functionalization induces robust, differential adhesion of tumor cells and blood cells to charged nanotube-coated biomaterials under flow. Biomaterials, 2015, 56, 179-186.	5.7	41
35	Circulating Tumor Cells from Prostate Cancer Patients Interact with E-Selectin under Physiologic Blood Flow. PLoS ONE, 2013, 8, e85143.	1.1	40
36	TRAIL-Mediated Apoptosis in Breast Cancer Cells Cultured as 3D Spheroids. PLoS ONE, 2014, 9, e111487.	1.1	39

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37	Nanobiotechnology for the capture and manipulation of circulating tumor cells. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2012, 4, 291-309.	3.3	38
38	Effect of homotypic and heterotypic interaction in 3D on the E-selectin mediated adhesive properties of breast cancer cell lines. Biomaterials, 2012, 33, 9037-9048.	5.7	35
39	Fluid shear stress enhances T cell activation through Piezo1. BMC Biology, 2022, 20, 61.	1.7	35
40	Nanomaterials for the Capture and Therapeutic Targeting of Circulating Tumor Cells. Cellular and Molecular Bioengineering, 2017, 10, 275-294.	1.0	34
41	Channeling the Force: Piezo1 Mechanotransduction in Cancer Metastasis. Cells, 2021, 10, 2815.	1.8	34
42	Chemotherapy-induced release of circulating-tumor cells into the bloodstream in collective migration units with cancer-associated fibroblasts in metastatic cancer patients. BMC Cancer, 2020, 20, 873.	1.1	33
43	The Impact of COVID-19 on Cancer Risk and Treatment. Cellular and Molecular Bioengineering, 2020, 13, 285-291.	1.0	33
44	Shear-Induced Resistance to Neutrophil Activation via the Formyl Peptide Receptor. Biophysical Journal, 2012, 102, 1804-1814.	0.2	32
45	Circulating Tumor Cells: The Substrate of Personalized Medicine?. Frontiers in Oncology, 2012, 2, 69.	1.3	31
46	Simulation of Platelet, Thrombus and Erythrocyte Hydrodynamic Interactions in a 3D Arteriole with In Vivo Comparison. PLoS ONE, 2013, 8, e76949.	1.1	31
47	E-selectin ligand-1 controls circulating prostate cancer cell rolling/adhesion and metastasis. Oncotarget, 2014, 5, 12097-12110.	0.8	31
48	Microenvironment induced spheroid to sheeting transition of immortalized human keratinocytes (HaCaT) cultured in microbubbles formed in polydimethylsiloxane. Biomaterials, 2011, 32, 7159-7168.	5.7	30
49	Prophylactic Cancer Vaccines Engineered to Elicit Specific Adaptive Immune Response. Frontiers in Oncology, 2021, 11, 626463.	1.3	30
50	Nanostructured Surfaces to Target and Kill Circulating Tumor Cells While Repelling Leukocytes. Journal of Nanomaterials, 2012, 2012, 1-10.	1.5	29
51	Nanobiotechnology for the Therapeutic Targeting of Cancer Cells in Blood. Cellular and Molecular Bioengineering, 2015, 8, 137-150.	1.0	29
52	Mechanical heterogeneities in the subendothelial matrix develop with age and decrease with exercise. Journal of Biomechanics, 2016, 49, 1447-1453.	0.9	29
53	Phenotypic Heterogeneity and Metastasis of Breast Cancer Cells. Cancer Research, 2021, 81, 3649-3663.	0.4	29
54	Inducing Apoptosis in Rolling Cancer Cells: A Combined Therapy with Aspirin and Immobilized TRAIL and E-Selectin. Molecular Pharmaceutics, 2012, 9, 2219-2227.	2.3	28

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55	Piperlongumine and immune cytokine TRAIL synergize to promote tumor death. Scientific Reports, 2015, 5, 9987.	1.6	28
56	Mechanosensitive Ion Channels. Cancer Journal (Sudbury, Mass), 2018, 24, 84-92.	1.0	27
57	Rapid Isolation of Viable Circulating Tumor Cells from Patient Blood Samples. Journal of Visualized Experiments, 2012, , e4248.	0.2	26
58	Immobilized surfactant-nanotube complexes support selectin-mediated capture of viable circulating tumor cells in the absence of capture antibodies. Journal of Biomedical Materials Research - Part A, 2015, 103, 3407-3418.	2.1	26
59	Biomolecular Surfaces for the Capture and Reprogramming of Circulating Tumor Cells. Journal of Bionic Engineering, 2009, 6, 311-317.	2.7	24
60	Oxaliplatin resistance in colorectal cancer enhances TRAIL sensitivity via death receptor 4 upregulation and lipid raft localization. ELife, 2021, 10, .	2.8	24
61	Rolling dynamics of a neutrophil with redistributed L-selectin. Mathematical Biosciences, 2005, 194, 71-79.	0.9	22
62	Engineered fluidic systems to understand lymphatic cancer metastasis. Biomicrofluidics, 2020, 14, 011502.	1.2	22
63	Hydrodynamic Interactions Between Rolling LeukocytesIn Vivo. Microcirculation, 2003, 10, 401-409.	1.0	21
64	Endothelial retention and phenotype on carbonized cardiovascular implant surfaces. Biomaterials, 2014, 35, 7714-7723.	5.7	21
65	Differential drug responses of circulating tumor cells within patient blood. Cancer Letters, 2014, 352, 28-35.	3.2	20
66	Sweeping lymph node micrometastases off their feet: an engineered model to evaluate natural killer cell mediated therapeutic intervention of circulating tumor cells that disseminate to the lymph nodes. Lab on A Chip, 2014, 14, 118-127.	3.1	19
67	Circulating prostate cancer cells have differential resistance to fluid shear stress-induced cell death. Journal of Cell Science, 2021, 134, .	1.2	18
68	The Effect of Hematocrit and Leukocyte Adherence on Flow Direction in the Microcirculation. Annals of Biomedical Engineering, 2004, 32, 803-814.	1.3	17
69	Apparent 2-D diffusivity in a ruffled cell membrane. Journal of Theoretical Biology, 2004, 227, 323-326.	0.8	17
70	Platelet mediated TRAIL delivery for efficiently targeting circulating tumor cells. Nanoscale Advances, 2020, 2, 3942-3953.	2.2	17
71	Matrix stiffness enhances cancer-macrophage interactions and M2-like macrophage accumulation in the breast tumor microenvironment. Acta Biomaterialia, 2023, 163, 365-377.	4.1	17
72	Dual nanoparticle drug delivery: the future of anticancer therapies?. Nanomedicine, 2017, 12, 95-98.	1.7	16

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73	Platelet-Based Drug Delivery for Cancer Applications. Advances in Experimental Medicine and Biology, 2018, 1092, 235-251.	0.8	16
74	Effect of Extracellular pH on Selectin Adhesion: Theory and Experiment. Biophysical Journal, 2013, 104, 292-299.	0.2	15
75	Two-stage nanoparticle delivery of piperlongumine and tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) anti-cancer therapy. Technology, 2016, 04, 60-69.	1.4	14
76	Micelle-in-Liposomes for Sustained Delivery of Anticancer Agents That Promote Potent TRAIL-Induced Cancer Cell Apoptosis. Molecules, 2021, 26, 157.	1.7	14
77	Rolling in the deep: therapeutic targeting of circulating tumor cells. Frontiers in Oncology, 2012, 2, 184.	1.3	13
78	Effect of circulating tumor cell aggregate configuration on hemodynamic transport and wall contact. Mathematical Biosciences, 2017, 294, 181-194.	0.9	13
79	Fabrication and Characterization of Tumor Nano-Lysate as a Preventative Vaccine for Breast Cancer. Langmuir, 2020, 36, 6531-6539.	1.6	11
80	Vascular Recruitment of Human Retinoblastoma Cells by Multi-Cellular Adhesive Interactions with Circulating Leukocytes. Cellular and Molecular Bioengineering, 2010, 3, 361-368.	1.0	10
81	Unnatural killer cells to prevent bloodborne metastasis: inspiration from biology and engineering. Expert Review of Anticancer Therapy, 2014, 14, 641-644.	1.1	10
82	Analysis of early thrombus dynamics in a humanized mouse laser injury model. Biorheology, 2014, 51, 3-14.	1.2	9
83	Taxanes Sensitize Prostate Cancer Cells to TRAIL-Induced Apoptotic Synergy via Endoplasmic Reticulum Stress. Molecular Cancer Therapeutics, 2021, 20, 833-845.	1.9	9
84	TRAIL-coated leukocytes to kill circulating tumor cells in the flowing blood from prostate cancer patients. BMC Cancer, 2021, 21, 898.	1.1	9
85	Dynamic Switch Between Two Adhesion Phenotypes in Colorectal Cancer Cells. Cellular and Molecular Bioengineering, 2014, 7, 35-44.	1.0	8
86	Questioning the Value of the Graduate Record Examinations (GRE) in PhD Admissions in Biomedical Engineering. Annals of Biomedical Engineering, 2020, 48, 2155-2157.	1.3	8
87	Halloysite Nanotube Coatings Suppress Leukocyte Spreading. Langmuir, 2015, 31, 13553-13560.	1.6	7
88	Overcoming TRAIL-resistance by sensitizing prostate cancer 3D spheroids with taxanes. PLoS ONE, 2021, 16, e0246733.	1.1	7
89	Simulation and Analysis of Tethering Behavior of Neutrophils with Pseudopods. PLoS ONE, 2015, 10, e0128378.	1.1	7
90	Surgical intervention and circulating tumor cell count: a commentary. Translational Cancer Research, 2016, 5, S126-S128.	0.4	7

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91	Comparison of human and mouse E-selectin binding to Sialyl-Lewisx. BMC Structural Biology, 2016, 16, 10.	2.3	6
92	Supercharged eGFP-TRAIL Decorated NETs to Ensnare and Kill Disseminated Tumor Cells. Cellular and Molecular Bioengineering, 2020, 13, 359-367.	1.0	5
93	SCALE INVARIANCE IN SELECTIN-MEDIATED LEUKOCYTE ROLLING. Fractals, 2004, 12, 235-241.	1.8	4
94	Cell-Surface Adhesive Interactions in Microchannels and Microvessels. Microscale Thermophysical Engineering, 2005, 9, 255-264.	1.2	4
95	Effect of Pseudopod Extensions on Neutrophil Hemodynamic Transport Near a Wall. Cellular and Molecular Bioengineering, 2016, 9, 85-95.	1.0	3
96	Mass Action Kinetic Model of Apoptosis by TRAIL-Functionalized Leukocytes. Frontiers in Oncology, 2018, 8, 410.	1.3	3
97	Modulation of Selectin-Mediated Adhesion of Flowing Lymphoma and Bone Marrow Cells by Immobilized SDF-1. International Journal of Molecular Sciences, 2014, 15, 15061-15072.	1.8	2
98	2013 BMES Outstanding Contributions. Cellular and Molecular Bioengineering, 2014, 7, 171-171.	1.0	2
99	CMBE Moves to the Structured Abstract Format: A Note from the Editor. Cellular and Molecular Bioengineering, 2017, 10, 143-143.	1.0	2
100	Unnatural killer cells: TRAIL-coated leukocytes that kill cancer cells in the circulation. , 2014, , .		1
101	Differentially charged nanomaterials control selectin-mediated adhesion and isolation of cancer cells and leukocytes under flow. , 2014, , .		1
102	Therapeutic Targeting of Circulating Tumor Cells: An Important Problem That Deserves Careful Study. Cellular and Molecular Bioengineering, 2015, 8, 527-529.	1.0	1
103	Announcing the Fourth Biomedical Engineering Education Summit Meeting. Cellular and Molecular Bioengineering, 2019, 12, 135-138.	1.0	1
104	A simplified method for the efficient purification and refolding of recombinant human <scp>TRAIL</scp>. Biotechnology Progress, 2020, 36, e3007.	1.3	1
105	Stabilization of the Hinge Region of Human E-selectin Enhances Binding Affinity to Ligands Under Force. Cellular and Molecular Bioengineering, 2021, 14, 65-74.	1.0	1
106	Cellular and Molecular Bioengineering: A New Editorial Perspective. Cellular and Molecular Bioengineering, 2013, 6, 118-118.	1.0	0
107	The 2016 Young Innovators of Cellular and Molecular Bioengineering. Cellular and Molecular Bioengineering, 2016, 9, 303-304.	1.0	0
108	The 2017 Young Innovators of Cellular and Molecular Bioengineering. Cellular and Molecular Bioengineering, 2017, 10, 339-340.	1.0	0

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109	The 2018 Young Innovators of Cellular and Molecular Bioengineering. Cellular and Molecular Bioengineering, 2018, 11, 307-308.	1.0	0
110	The 2019 Young Innovators of Cellular and Molecular Bioengineering. Cellular and Molecular Bioengineering, 2019, 12, 355-356.	1.0	0
111	The 2020 Young Innovators of Cellular and Molecular Bioengineering. Cellular and Molecular Bioengineering, 2020, 13, 391-392.	1.0	0
112	The 2021 Young Innovators of Cellular and Molecular Bioengineering. Cellular and Molecular Bioengineering, 2021, 14, 379-380.	1.0	0
113	Enrichment of CD34+ Hematopoietic Stem and Progenitor Cells from Human Bone Marrow Using a P-Selectin-Coated Microtube.. Blood, 2007, 110, 1219-1219.	0.6	0