Michael R King

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

116 papers	2,960 citations	32 h-index	50 g-index
132 ext. papers	3,576 ext. citations	5.3 avg, IF	5.77 L-index

#	Paper	IF	Citations
116	Fluid shear stress enhances T cell activation through Piezo1.. *BMC Biology*, **2022**, 20, 61	7.3	2
115	Matrix stiffness enhances cancer-macrophage interactions and M2-like macrophage accumulation in the breast tumor microenvironment.. *Acta Biomaterialia*, **2022**,	10.8	1
114	Channeling the Force: Piezo1 Mechanotransduction in Cancer Metastasis. *Cells*, **2021**, 10,	7.9	2
113	Rafting Down the Metastatic Cascade: The Role of Lipid Rafts in Cancer Metastasis, Cell Death, and Clinical Outcomes. *Cancer Research*, **2021**, 81, 5-17	10.1	24
112	Overcoming TRAIL-resistance by sensitizing prostate cancer 3D spheroids with taxanes. *PLoS ONE*, **2021**, 16, e0246733	3.7	2
111	Prophylactic Cancer Vaccines Engineered to Elicit Specific Adaptive Immune Response. *Frontiers in Oncology*, **2021**, 11, 626463	5.3	15
110	Phenotypic Heterogeneity and Metastasis of Breast Cancer Cells. *Cancer Research*, **2021**, 81, 3649-3663	10.1	7
109	Stabilization of the Hinge Region of Human E-selectin Enhances Binding Affinity to Ligands Under Force. *Cellular and Molecular Bioengineering*, **2021**, 14, 65-74	3.9	1
108	Circulating prostate cancer cells have differential resistance to fluid shear stress-induced cell death. *Journal of Cell Science*, **2021**, 134,	5.3	6
107	Taxanes Sensitize Prostate Cancer Cells to TRAIL-Induced Apoptotic Synergy via Endoplasmic Reticulum Stress. *Molecular Cancer Therapeutics*, **2021**, 20, 833-845	6.1	2
106	TRAIL-coated leukocytes to kill circulating tumor cells in the flowing blood from prostate cancer patients. *BMC Cancer*, **2021**, 21, 898	4.8	1
105	Fabrication and Characterization of Tumor Nano-Lysate as a Preventative Vaccine for Breast Cancer. *Langmuir*, **2020**, 36, 6531-6539	4	2
104	The Impact of COVID-19 on Cancer Risk and Treatment. *Cellular and Molecular Bioengineering*, **2020**, 13, 1-7	3.9	18
103	A simplified method for the efficient purification and refolding of recombinant human TRAIL. *Biotechnology Progress*, **2020**, 36, e3007	2.8	1
102	Cancer associated fibroblasts confer shear resistance to circulating tumor cells during prostate cancer metastatic progression. *Oncotarget*, **2020**, 11, 1037-1050	3.3	27
101	Micelle-in-Liposomes for Sustained Delivery of Anticancer Agents That Promote Potent TRAIL-Induced Cancer Cell Apoptosis. *Molecules*, **2020**, 26,	4.8	6
100	Engineered fluidic systems to understand lymphatic cancer metastasis. *Biomicrofluidics*, **2020**, 14, 011503	3.2	14

99	Engineering of Exosomes to Target Cancer Metastasis. *Cellular and Molecular Bioengineering*, **2020**, 13, 1-16	3.9	36
98	Platelet mediated TRAIL delivery for efficiently targeting circulating tumor cells. *Nanoscale Advances*, **2020**, 2, 3942-3953	5.1	6
97	Supercharged eGFP-TRAIL Decorated NETs to Ensnare and Kill Disseminated Tumor Cells. *Cellular and Molecular Bioengineering*, **2020**, 13, 359-367	3.9	1
96	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	4.8	11
95	Minimal dosing of leukocyte targeting TRAIL decreases triple-negative breast cancer metastasis following tumor resection. *Science Advances*, **2019**, 5, eaaw4197	14.3	24
94	Activation of Piezo1 sensitizes cells to TRAIL-mediated apoptosis through mitochondrial outer membrane permeability. *Cell Death and Disease*, **2019**, 10, 837	9.8	20
93	Mechanosensitive Ion Channels: TRPV4 and P2X7 in Disseminating Cancer Cells. *Cancer Journal (Sudbury, Mass)*, **2018**, 24, 84-92	2.2	14
92	Circulating Tumor Cells: Diagnostic and Therapeutic Applications. *Annual Review of Biomedical Engineering*, **2018**, 20, 329-352	12	51
91	Regulation of ATP utilization during metastatic cell migration by collagen architecture. *Molecular Biology of the Cell*, **2018**, 29, 1-9	3.5	60
90	The 2018 Young Innovators of Cellular and Molecular Bioengineering. *Cellular and Molecular Bioengineering*, **2018**, 11, 307-308	3.9	
89	Mass Action Kinetic Model of Apoptosis by TRAIL-Functionalized Leukocytes. *Frontiers in Oncology*, **2018**, 8, 410	5.3	3
88	Platelet-Based Drug Delivery for Cancer Applications. *Advances in Experimental Medicine and Biology*, **2018**, 1092, 235-251	3.6	10
87	Safe Recombinant Outer Membrane Vesicles that Display M2e Elicit Heterologous Influenza Protection. *Molecular Therapy*, **2017**, 25, 989-1002	11.7	53
86	Effect of circulating tumor cell aggregate configuration on hemodynamic transport and wall contact. *Mathematical Biosciences*, **2017**, 294, 181-194	3.9	7
85	Nanomaterials for the Capture and Therapeutic Targeting of Circulating Tumor Cells. *Cellular and Molecular Bioengineering*, **2017**, 10, 275-294	3.9	21
84	Dual nanoparticle drug delivery: the future of anticancer therapies?. *Nanomedicine*, **2017**, 12, 95-98	5.6	12
83	Selectin-Mediated Targeting of Circulating Tumor Cells for Isolation and Treatment **2016**, 267-286		
82	The 2016 Young Innovators of Cellular and Molecular Bioengineering. *Cellular and Molecular Bioengineering*, **2016**, 9, 303-304	3.9	

81	Mechanical heterogeneities in the subendothelial matrix develop with age and decrease with exercise. *Journal of Biomechanics*, **2016**, 49, 1447-1453	2.9	23
80	Two-stage nanoparticle delivery of piperlongumine and tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) anti-cancer therapy. *Technology*, **2016**, 4, 60-69	3	11
79	Genetic engineering of platelets to neutralize circulating tumor cells. *Journal of Controlled Release*, **2016**, 228, 38-47	11.7	55
78	TRAIL-coated leukocytes that prevent the bloodborne metastasis of prostate cancer. *Journal of Controlled Release*, **2016**, 223, 215-223	11.7	47
77	Super natural killer cells that target metastases in the tumor draining lymph nodes. *Biomaterials*, **2016**, 77, 66-76	15.6	45
76	Targeted drug delivery to circulating tumor cells via platelet membrane-functionalized particles. *Biomaterials*, **2016**, 76, 52-65	15.6	169
75	Surgical intervention and circulating tumor cell count: a commentary. *Translational Cancer Research*, **2016**, 5, S126-S128	0.3	6
74	Comparison of human and mouse E-selectin binding to Sialyl-Lewis(x). *BMC Structural Biology*, **2016**, 16, 10	2.7	5
73	Effect of Pseudopod Extensions on Neutrophil Hemodynamic Transport Near a Wall. *Cellular and Molecular Bioengineering*, **2016**, 9, 85-95	3.9	2
72	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, 3407-18	5.4	25
71	Surfactant functionalization induces robust, differential adhesion of tumor cells and blood cells to charged nanotube-coated biomaterials under flow. *Biomaterials*, **2015**, 56, 179-86	15.6	35
70	Nanobiotechnology for the Therapeutic Targeting of Cancer Cells in Blood. *Cellular and Molecular Bioengineering*, **2015**, 8, 137-150	3.9	25
69	A physical sciences network characterization of circulating tumor cell aggregate transport. *American Journal of Physiology - Cell Physiology*, **2015**, 308, C792-802	5.4	42
68	Therapeutic Targeting of Circulating Tumor Cells: An Important Problem That Deserves Careful Study. *Cellular and Molecular Bioengineering*, **2015**, 8, 527-529	3.9	
67	Piperlongumine and immune cytokine TRAIL synergize to promote tumor death. *Scientific Reports*, **2015**, 5, 9987	4.9	25
66	Lamin A/C deficiency reduces circulating tumor cell resistance to fluid shear stress. *American Journal of Physiology - Cell Physiology*, **2015**, 309, C736-46	5.4	61
65	Halloysite Nanotube Coatings Suppress Leukocyte Spreading. *Langmuir*, **2015**, 31, 13553-60	4	7
64	Cooperative effects of matrix stiffness and fluid shear stress on endothelial cell behavior. *Biophysical Journal*, **2015**, 108, 471-8	2.9	95

63	Simulation and Analysis of Tethering Behavior of Neutrophils with Pseudopods. *PLoS ONE*, **2015**, 10, e0128378	3.7	7
62	Dynamic Switch Between Two Adhesion Phenotypes in Colorectal Cancer Cells. *Cellular and Molecular Bioengineering*, **2014**, 7, 35-44	3.9	5
61	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, 930-5	11.5	143
60	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, 118-27	7.2	17
59	2013 BMES Outstanding Contributions. *Cellular and Molecular Bioengineering*, **2014**, 7, 171-171	3.9	2
58	Differential drug responses of circulating tumor cells within patient blood. *Cancer Letters*, **2014**, 352, 28-35	9.9	18
57	Fluid shear stress increases neutrophil activation via platelet-activating factor. *Biophysical Journal*, **2014**, 106, 2243-53	2.9	44
56	Analysis of early thrombus dynamics in a humanized mouse laser injury model. *Biorheology*, **2014**, 51, 3-14	1.7	6
55	TRAIL-mediated apoptosis in breast cancer cells cultured as 3D spheroids. *PLoS ONE*, **2014**, 9, e111487	3.7	27
54	Modulation of selectin-mediated adhesion of flowing lymphoma and bone marrow cells by immobilized SDF-1. *International Journal of Molecular Sciences*, **2014**, 15, 15061-72	6.3	2
53	Microenvironment of tumor-draining lymph nodes: opportunities for liposome-based targeted therapy. *International Journal of Molecular Sciences*, **2014**, 15, 20209-39	6.3	49
52	Unnatural killer cells: TRAIL-coated leukocytes that kill cancer cells in the circulation **2014**,		1
51	Endothelial retention and phenotype on carbonized cardiovascular implant surfaces. *Biomaterials*, **2014**, 35, 7714-23	15.6	17
50	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, C89-97	5.4	50
49	Differentially charged nanomaterials control selectin-mediated adhesion and isolation of cancer cells and leukocytes under flow **2014**,		1
48	E-selectin ligand-1 controls circulating prostate cancer cell rolling/adhesion and metastasis. *Oncotarget*, **2014**, 5, 12097-110	3.3	21
47	Cellular and Molecular Bioengineering: A New Editorial Perspective. *Cellular and Molecular Bioengineering*, **2013**, 6, 118-118	3.9	
46	Effect of extracellular pH on selectin adhesion: theory and experiment. *Biophysical Journal*, **2013**, 104, 292-9	2.9	14

45	Computational and experimental models of cancer cell response to fluid shear stress. *Frontiers in Oncology*, **2013**, 3, 44	5.3	125
44	Fluid Shear Stress Sensitizes Cancer Cells to Receptor-Mediated Apoptosis via Trimeric Death Receptors. *New Journal of Physics*, **2013**, 15, 015008	2.9	107
43	Phenotypic switch in blood: effects of pro-inflammatory cytokines on breast cancer cell aggregation and adhesion. *PLoS ONE*, **2013**, 8, e54959	3.7	53
42	Simulation of platelet, thrombus and erythrocyte hydrodynamic interactions in a 3D arteriole with in vivo comparison. *PLoS ONE*, **2013**, 8, e76949	3.7	26
41	Circulating tumor cells from prostate cancer patients interact with E-selectin under physiologic blood flow. *PLoS ONE*, **2013**, 8, e85143	3.7	34
40	E-selectin liposomal and nanotube-targeted delivery of doxorubicin to circulating tumor cells. *Journal of Controlled Release*, **2012**, 160, 609-17	11.7	64
39	Inducing apoptosis in rolling cancer cells: a combined therapy with aspirin and immobilized TRAIL and E-selectin. *Molecular Pharmaceutics*, **2012**, 9, 2219-27	5.6	22
38	Circulating tumor cells: the substrate of personalized medicine?. *Frontiers in Oncology*, **2012**, 2, 69	5.3	28
37	Effect of homotypic and heterotypic interaction in 3D on the E-selectin mediated adhesive properties of breast cancer cell lines. *Biomaterials*, **2012**, 33, 9037-48	15.6	28
36	Shear-induced resistance to neutrophil activation via the formyl peptide receptor. *Biophysical Journal*, **2012**, 102, 1804-14	2.9	31
35	Rapid isolation of viable circulating tumor cells from patient blood samples. *Journal of Visualized Experiments*, **2012**, e4248	1.6	23
34	Nanobiotechnology for the capture and manipulation of circulating tumor cells. *Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology*, **2012**, 4, 291-309	9.2	35
33	Nanostructured Surfaces to Target and Kill Circulating Tumor Cells While Repelling Leukocytes. *Journal of Nanomaterials*, **2012**, 2012,	3.2	24
32	Rolling in the deep: therapeutic targeting of circulating tumor cells. *Frontiers in Oncology*, **2012**, 2, 184	5.3	11
31	Microtube device for selectin-mediated capture of viable circulating tumor cells from blood. *Clinical Chemistry*, **2012**, 58, 846-53	5.5	85
30	Adhesion receptors as therapeutic targets for circulating tumor cells. *Frontiers in Oncology*, **2012**, 2, 79	5.3	46
29	Continuously perfused microbubble array for 3D tumor spheroid model. *Biomicrofluidics*, **2011**, 5, 24110	3.2	63
28	Microenvironment induced spheroid to sheeting transition of immortalized human keratinocytes (HaCaT) cultured in microbubbles formed in polydimethylsiloxane. *Biomaterials*, **2011**, 32, 7159-68	15.6	27

27	Molecular Dynamics Modeling of Nanodroplets and Nanoparticles **2010**, 151-183		1
26	Large-Scale Simulation of Blood Flow in Microvessels **2010**, 321-339		
25	Molecular to Multicellular Deformation during Adhesion of Immune Cells Under Flow **2010**, 341-368		
24	Multiscale Modeling of Nanoscale Aggregation Phenomena: Applications in Semiconductor Materials Processing **2010**, 5-40		
23	Multiscale Modeling of Rare Events in Self-Assembled Systems **2010**, 41-78		
22	Continuum Description of Atomic Sheets **2010**, 79-116		
21	Coulombic Dragging and Mechanical Propelling of Molecules in Nanofluidic Systems **2010**, 117-149		
20	Modeling the Interactions between Compliant Microcapsules and Patterned Surfaces **2010**, 185-221		
19	Coarse-Grained and Multiscale Simulations of Lipid Bilayers **2010**, 223-241		
18	Stochastic Approach to Biochemical Kinetics **2010**, 243-285		
17	In Silico Modeling of Angiogenesis at Multiple Scales: From Nanoscale to Organ System **2010**, 287-320		2
16	Vascular Recruitment of Human Retinoblastoma Cells by Multi-Cellular Adhesive Interactions with Circulating Leukocytes. *Cellular and Molecular Bioengineering*, **2010**, 3, 361-368	3.9	9
15	Delivery of apoptotic signal to rolling cancer cells: a novel biomimetic technique using immobilized TRAIL and E-selectin. *Biotechnology and Bioengineering*, **2009**, 102, 1692-702	4.9	55
14	Biomolecular Surfaces for the Capture and Reprogramming of Circulating Tumor Cells. *Journal of Bionic Engineering*, **2009**, 6, 311-317	2.7	22
13	Platelet adhesive dynamics. Part I: characterization of platelet hydrodynamic collisions and wall effects. *Biophysical Journal*, **2008**, 95, 2539-55	2.9	71
12	Microfabrication of cavities in polydimethylsiloxane using DRIE silicon molds. *Lab on A Chip*, **2007**, 7, 1660-2	5.2	43
11	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	5.4	60
10	Enrichment of CD34+ Hematopoietic Stem and Progenitor Cells from Human Bone Marrow Using a P-Selectin-Coated Microtube.. *Blood*, **2007**, 110, 1219-1219	2.2	

9	Rolling dynamics of a neutrophil with redistributed L-selectin. *Mathematical Biosciences*, **2005**, 194, 71-9	3.9	20
8	Nano-to-micro scale dynamics of P-selectin detachment from leukocyte interfaces. III. Numerical simulation of tethering under flow. *Biophysical Journal*, **2005**, 88, 1676-83	2.9	51
7	Three-dimensional simulations of a platelet-shaped spheroid near a wall in shear flow. *Physics of Fluids*, **2005**, 17, 113302	4.4	46
6	Cell-Surface Adhesive Interactions in Microchannels and Microvessels. *Microscale Thermophysical Engineering*, **2005**, 9, 255-264		4
5	SCALE INVARIANCE IN SELECTIN-MEDIATED LEUKOCYTE ROLLING. *Fractals*, **2004**, 12, 235-241	3.2	4
4	The effect of hematocrit and leukocyte adherence on flow direction in the microcirculation. *Annals of Biomedical Engineering*, **2004**, 32, 803-14	4.7	17
3	Apparent 2-D diffusivity in a ruffled cell membrane. *Journal of Theoretical Biology*, **2004**, 227, 323-6	2.3	14
2	Hydrodynamic interactions between rolling leukocytes in vivo. *Microcirculation*, **2003**, 10, 401-9	2.9	19
1	Multiparticle adhesive dynamics. Interactions between stably rolling cells. *Biophysical Journal*, **2001**, 81, 799-813	2.9	112