

Cheng Dong

List of Publications by Year in descending order

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92
papers

3,683
citations

147801

31
h-index

133252

59
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94
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94
docs citations

94
times ranked

4598
citing authors

#	ARTICLE	IF	CITATIONS
1	Transiently Entrapped Circulating Tumor Cells Interact with Neutrophils to Facilitate Lung Metastasis Development. <i>Cancer Research</i> , 2010, 70, 6071-6082.	0.9	300
2	Biomechanics of cell rolling: shear flow, cell-surface adhesion, and cell deformability. <i>Journal of Biomechanics</i> , 2000, 33, 35-43.	2.1	210
3	Single-layer planar on-chip flow cytometer using microfluidic drifting based three-dimensional (3D) hydrodynamic focusing. <i>Lab on A Chip</i> , 2009, 9, 1583.	6.0	185
4	Passive Deformation Analysis of Human Leukocytes. <i>Journal of Biomechanical Engineering</i> , 1988, 110, 27-36.	1.3	170
5	Biomechanics: Cell Research and Applications for the Next Decade. <i>Annals of Biomedical Engineering</i> , 2009, 37, 847-859.	2.5	169
6	Design Strategies and Applications of Circulating Cell-Mediated Drug Delivery Systems. <i>ACS Biomaterials Science and Engineering</i> , 2015, 1, 201-217.	5.2	146
7	Mechanics of Leukocyte Deformation and Adhesion to Endothelium in Shear Flow. <i>Annals of Biomedical Engineering</i> , 1999, 27, 298-312.	2.5	142
8	Cytoplasmic rheology of passive neutrophils. <i>Biorheology</i> , 1991, 28, 557-567.	0.4	129
9	Targeting Mitogen-Activated Protein Kinase/Extracellular Signal-Regulated Kinase Kinase in the Mutant (V600E) B-Raf Signaling Cascade Effectively Inhibits Melanoma Lung Metastases. <i>Cancer Research</i> , 2006, 66, 8200-8209.	0.9	108
10	Neutrophils influence melanoma adhesion and migration under flow conditions. <i>International Journal of Cancer</i> , 2003, 106, 713-722.	5.1	92
11	Targeting Mutant (V600E) B-Raf in Melanoma Interrupts Immunoediting of Leukocyte Functions and Melanoma Extravasation. <i>Cancer Research</i> , 2007, 67, 5814-5820.	0.9	82
12	Distinct role of hydrodynamic shear in leukocyte-facilitated tumor cell extravasation. <i>American Journal of Physiology - Cell Physiology</i> , 2005, 288, C831-C839.	4.6	79
13	Leukocyte deformability: Finite element modeling of large viscoelastic deformation. <i>Journal of Theoretical Biology</i> , 1992, 158, 173-193.	1.7	76
14	The use of nanoparticulates to treat breast cancer. <i>Nanomedicine</i> , 2017, 12, 2367-2388.	3.3	74
15	Hydrodynamic Shear Rate Regulates Melanoma-Leukocyte Aggregation, Melanoma Adhesion to the Endothelium, and Subsequent Extravasation. <i>Annals of Biomedical Engineering</i> , 2008, 36, 661-671.	2.5	72
16	Regulation of interleukin-8 expression in melanoma-stimulated neutrophil inflammatory response. <i>Experimental Cell Research</i> , 2007, 313, 551-559.	2.6	71
17	Shear stress and shear rate differentially affect the multi-step process of leukocyte-facilitated melanoma adhesion. <i>Experimental Cell Research</i> , 2005, 310, 282-292.	2.6	68
18	Immune Cell-Mediated Biodegradable Theranostic Nanoparticles for Melanoma Targeting and Drug Delivery. <i>Small</i> , 2017, 13, 1603121.	10.0	63

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19	In Situ Synthesis of an Aptamer-Based Polyvalent Antibody Mimic on the Cell Surface for Enhanced Interactions between Immune and Cancer Cells. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 11892-11897.	13.8	57
20	Melanoma cell extravasation under flow conditions is modulated by leukocytes and endogenously produced interleukin 8. <i>MCB Molecular and Cellular Biomechanics</i> , 2005, 2, 145-59.	0.7	55
21	In Vitro Side-View Imaging Technique and Analysis of Human T-Leukemic Cell Adhesion to ICAM-1 in Shear Flow. <i>Microvascular Research</i> , 1998, 55, 124-137.	2.5	54
22	Integrin VLA-4 enhances sialyl-Lewis ^x -negative melanoma adhesion to and extravasation through the endothelium under low flow conditions. <i>American Journal of Physiology - Cell Physiology</i> , 2008, 295, C701-C707.	4.6	51
23	Sequential Binding of $\alpha_5\beta_1$ and ICAM-1 Determines Fibrin-Mediated Melanoma Capture and Stable Adhesion to CD11b/CD18 on Neutrophils. <i>Journal of Immunology</i> , 2011, 186, 242-254.	0.8	48
24	VE-Cadherin Disassembly and Cell Contractility in the Endothelium are Necessary for Barrier Disruption Induced by Tumor Cells. <i>Scientific Reports</i> , 2017, 7, 45835.	3.3	43
25	Citrate-Based Tannin-Bridged Bone Composites for Lumbar Fusion. <i>Advanced Functional Materials</i> , 2020, 30, 2002438.	14.9	43
26	Melanoma cell migration to type IV collagen requires activation of NF- κ B. <i>Oncogene</i> , 2003, 22, 98-108.	5.9	42
27	Melanoma upregulates ICAM-1 expression on endothelial cells through engagement of tumor CD44 with endothelial E-selectin and activation of a PKC δ -p38 MAPK pathway. <i>FASEB Journal</i> , 2014, 28, 4591-4609.	0.5	42
28	Two Phases of Pseudopod Protrusion in Tumor Cells Revealed by a Micropipette. <i>Microvascular Research</i> , 1994, 47, 55-67.	2.5	40
29	Development of a side-view chamber for studying cell-surface adhesion under flow conditions. <i>Annals of Biomedical Engineering</i> , 1997, 25, 573-580.	2.5	40
30	Two-dimensional kinetics of $\alpha_5\beta_1$ -integrin and ICAM-1 bindings between neutrophils and melanoma cells in a shear flow. <i>American Journal of Physiology - Cell Physiology</i> , 2008, 294, C743-C753.	4.6	40
31	In Vitro Characterization and Micromechanics of Tumor Cell Chemotactic Protrusion, Locomotion, and Extravasation. <i>Annals of Biomedical Engineering</i> , 2002, 30, 344-355.	2.5	35
32	Nuclear Stiffening Inhibits Migration of Invasive Melanoma Cells. <i>Cellular and Molecular Bioengineering</i> , 2014, 7, 544-551.	2.1	34
33	High-affinity mutant Interleukin-13 targeted CAR T cells enhance delivery of clickable biodegradable fluorescent nanoparticles to glioblastoma. <i>Bioactive Materials</i> , 2020, 5, 624-635.	15.6	34
34	Design of a Side-View Particle Imaging Velocimetry Flow System for Cell-Substrate Adhesion Studies. <i>Journal of Biomechanical Engineering</i> , 2006, 128, 271-278.	1.3	32
35	p38 MAP kinase is necessary for melanoma-mediated regulation of VE-cadherin disassembly. <i>American Journal of Physiology - Cell Physiology</i> , 2010, 298, C1140-C1150.	4.6	32
36	CD82 suppresses CD44 alternative splicing-dependent melanoma metastasis by mediating U2AF2 ubiquitination and degradation. <i>Oncogene</i> , 2016, 35, 5056-5069.	5.9	32

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37	Determining $\alpha 2$ -Integrin and Intercellular Adhesion Molecule 1 Binding Kinetics in Tumor Cell Adhesion to Leukocytes and Endothelial Cells by a Gas-driven Micropipette Assay*. Journal of Biological Chemistry, 2011, 286, 34777-34787.	3.4	31
38	The critical chemical and mechanical regulation of folic acid on neural engineering. Biomaterials, 2018, 178, 504-516.	11.4	31
39	Aptamer-Based Polyvalent Ligands for Regulated Cell Attachment on the Hydrogel Surface. Biomacromolecules, 2015, 16, 1382-1389.	5.4	29
40	Involvement of phospholipase C signaling in melanoma cell-induced endothelial junction disassembly. Frontiers in Bioscience - Landmark, 2005, 10, 1597.	3.0	29
41	Application of the Dual-Micropipet Technique to the Measurement of Tumor Cell Locomotion. Experimental Cell Research, 1999, 248, 160-171.	2.6	28
42	Passive Deformations and Active Motions of Leukocytes. Journal of Biomechanical Engineering, 1990, 112, 295-302.	1.3	27
43	Phototherapy and optical waveguides for the treatment of infection. Advanced Drug Delivery Reviews, 2021, 179, 114036.	13.7	26
44	Micromechanics of tumor cell adhesion and migration under dynamic flow conditions. Frontiers in Bioscience - Landmark, 2005, 10, 379.	3.0	25
45	Effects of the Tumor-Leukocyte Microenvironment on Melanoma-Neutrophil Adhesion to the Endothelium in a Shear Flow. Cellular and Molecular Bioengineering, 2008, 1, 189-200.	2.1	25
46	A Drosera-bioinspired hydrogel for catching and killing cancer cells. Scientific Reports, 2015, 5, 14297.	3.3	24
47	CD44 variant, but not standard CD44 isoforms, mediate disassembly of endothelial VE-cadherin junction on metastatic melanoma cells. FEBS Letters, 2014, 588, 4573-4582.	2.8	23
48	Quasi-3D Cytoskeletal Dynamics of Osteocytes under Fluid Flow. Biophysical Journal, 2010, 99, 2812-2820.	0.5	22
49	C6-ceramide nanoliposome suppresses tumor metastasis by eliciting PI3K and PKC η tumor-suppressive activities and regulating integrin affinity modulation. Scientific Reports, 2015, 5, 9275.	3.3	21
50	From Cancer Immunoediting to New Strategies in Cancer Immunotherapy: The Roles of Immune Cells and Mechanics in Oncology. Advances in Experimental Medicine and Biology, 2018, 1092, 113-138.	1.6	19
51	[Ca ²⁺] _i as a potential downregulator of $\alpha 2 \beta 1$ -integrin-mediated A2058 tumor cell migration to type IV collagen. American Journal of Physiology - Cell Physiology, 2001, 281, C106-C113.	4.6	18
52	Fibrin serves as a divalent ligand that regulates neutrophil-mediated melanoma cells adhesion to endothelium under shear conditions. American Journal of Physiology - Cell Physiology, 2012, 302, C1189-C1201.	4.6	18
53	Development of osteopromotive poly (octamethylene citrate glycerophosphate) for enhanced bone regeneration. Acta Biomaterialia, 2019, 93, 180-191.	8.3	18
54	Kinetics analysis of binding between melanoma cells and neutrophils. MCB Molecular and Cellular Biomechanics, 2006, 3, 79-87.	0.7	18

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55	Simultaneous tracking of 3D actin and microtubule strains in individual MLO-Y4 osteocytes under oscillatory flow. <i>Biochemical and Biophysical Research Communications</i> , 2013, 431, 718-723.	2.1	16
56	Tumor cell extravasation mediated by leukocyte adhesion is shear rate dependent on IL-8 signaling. <i>MCB Molecular and Cellular Biomechanics</i> , 2010, 7, 77-91.	0.7	15
57	Actinomyosin Contraction, Phosphorylation of VE-Cadherin, and Actin Remodeling Enable Melanoma-Induced Endothelial Cell-Cell Junction Disassembly. <i>PLoS ONE</i> , 2014, 9, e108092.	2.5	14
58	A noninvasive approach to determine viscoelastic properties of an individual adherent cell under fluid flow. <i>Journal of Biomechanics</i> , 2014, 47, 1537-1541.	2.1	14
59	Lysosomal Degradation of CD44 Mediates Ceramide Nanoliposome-induced Anoikis and Diminished Extravasation in Metastatic Carcinoma Cells. <i>Journal of Biological Chemistry</i> , 2015, 290, 8632-8643.	3.4	14
60	RacGAP1-driven focal adhesion formation promotes melanoma transendothelial migration through mediating adherens junction disassembly. <i>Biochemical and Biophysical Research Communications</i> , 2015, 459, 1-9.	2.1	14
61	Advanced Cell and Tissue Biomanufacturing. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 2292-2307.	5.2	14
62	Responses of tumor cell pseudopod protrusion to changes in medium osmolality. , 1996, 167, 156-163.		13
63	Cyclovirobuxine D Inhibits Cell Proliferation and Induces Mitochondria-Mediated Apoptosis in Human Gastric Cancer Cells. <i>Molecules</i> , 2015, 20, 20659-20668.	3.8	13
64	Systemic Analysis of Tumor Cell-Induced Endothelial Calcium Signaling and Junction Disassembly. <i>Cellular and Molecular Bioengineering</i> , 2009, 2, 375-385.	2.1	12
65	Monte carlo simulation of heterotypic cell aggregation in nonlinear shear flow. <i>Mathematical Biosciences and Engineering</i> , 2006, 3, 683-696.	1.9	12
66	Use of Green Fluorescent Protein-Conjugated β -Actin as a Novel Molecular Marker for in Vitro Tumor Cell Chemotaxis Assay. <i>Biotechnology Progress</i> , 2000, 16, 1106-1114.	2.6	10
67	Mutant B-Raf(V600E) Promotes Melanoma Paracellular Transmigration by Inducing Thrombin-mediated Endothelial Junction Breakdown. <i>Journal of Biological Chemistry</i> , 2016, 291, 2087-2106.	3.4	10
68	Synthetic DNA for Cell Surface Engineering: Experimental Comparison between Click Conjugation and Lipid Insertion in Terms of Cell Viability, Engineering Efficiency, and Displaying Stability. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 3900-3909.	8.0	10
69	Application of Population Dynamics to Study Heterotypic Cell Aggregations in the Near-Wall Region of a Shear Flow. <i>Cellular and Molecular Bioengineering</i> , 2010, 3, 3-19.	2.1	9
70	Modeling of Cell Aggregation Dynamics Governed by Receptor-Ligand Binding Under Shear Flow. <i>Cellular and Molecular Bioengineering</i> , 2011, 4, 427-441.	2.1	8
71	Study of Local Hydrodynamic Environment in Cell-Substrate Adhesion Using Side-View μ PIV Technology. <i>PLoS ONE</i> , 2012, 7, e30721.	2.5	8
72	Localized Modeling of Biochemical and Flow Interactions during Cancer Cell Adhesion. <i>PLoS ONE</i> , 2015, 10, e0136926.	2.5	7

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73	Theoretical Analysis of Novel Quasi-3D Microscopy of Cell Deformation. Cellular and Molecular Bioengineering, 2012, 5, 165-172.	2.1	6
74	Regulation of fibrin-mediated tumor cell adhesion to the endothelium using anti-thrombin aptamer. Experimental Cell Research, 2015, 339, 417-426.	2.6	6
75	Inâ€¦Situ Synthesis of an Aptamerâ€Based Polyvalent Antibody Mimic on the Cell Surface for Enhanced Interactions between Immune and Cancer Cells. Angewandte Chemie, 2020, 132, 11990-11995.	2.0	6
76	Extracellular lipid-mediated signaling in tumor-cell activation and pseudopod protrusion. International Journal of Cancer, 2000, 88, 593-600.	5.1	5
77	Model Simulations Reveal VCAM-1 Augment PAK Activation Rates to Amplify p38 MAPK and VE-Cadherin Phosphorylation. Cellular and Molecular Bioengineering, 2011, 4, 656-669.	2.1	4
78	Cellular and Molecular Bioengineering: A Tipping Point. Cellular and Molecular Bioengineering, 2012, 5, 239-253.	2.1	3
79	Micro-PIV measurements of the flow field around cells in flow chamber. Journal of Hydrodynamics, 2015, 27, 562-568.	3.2	3
80	Bone Composites: Citrateâ€Based Tanninâ€Bridged Bone Composites for Lumbar Fusion (Adv. Funct. Mater.) Tj ETQq0 0 0 rgBT /Overlo	14.9	3
81	Genomic and experimental evidence that ALKATI does not predict single agent sensitivity to ALK inhibitors. IScience, 2021, 24, 103343.	4.1	3
82	Adhesion and Signaling of Tumor Cells to Leukocytes and Endothelium in Cancer Metastasis. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2010, , 477-521.	1.0	2
83	Perspectives: Interplay Between Melanoma Regulated Fibrin and Receptor Mediated Adhesion Under Shear Flow. Cellular and Molecular Bioengineering, 2015, 8, 86-95.	2.1	2
84	3D numerical study of tumor blood perfusion and oxygen transport during vascular normalization. Applied Mathematics and Mechanics (English Edition), 2015, 36, 153-162.	3.6	1
85	Multi-scale biological and physical modelling of the tumour micro-environment. Drug Discovery Today: Disease Models, 2015, 16, 7-15.	1.2	1
86	3D numerical study of tumor microenvironmental flow in response to vascular-disrupting treatments. MCB Molecular and Cellular Biomechanics, 2012, 9, 95-125.	0.7	1
87	Cellular Mechanics and Biology of Tumor Cell-Leukocyte Interactions in the Near Wall Region Under Shear Flow Conditions. , 2007, , 371.		0
88	The role of fibrin as a ligand for ICAM-1 and PMN in melanoma adhesion under different shear conditions.. , 2009, , .		0
89	The effect of cell shape on local hydrodynamic environment. , 2011, , .		0
90	Drug Delivery: Immune Cellâ€Mediated Biodegradable Theranostic Nanoparticles for Melanoma Targeting and Drug Delivery (Small 10/2017). Small, 2017, 13, .	10.0	0

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91	Targeting Mutant V600E Bâ€Raf in Melanoma Interrupts Immunoediting of Leukocyte Functions and Melanoma Extravasation. FASEB Journal, 2008, 22, 1079.23.	0.5	0
92	Fibrinogen and Fibrin Differentially Regulate the Local Hydrodynamic Environment in Neutrophilâ€Tumor Cellâ€Endothelial Cell Adhesion System. Applied Sciences (Switzerland), 2021, 11, 79.	2.5	0