Richard E Waugh

List of Publications by Year
in descending order

63 papers	1,853 citations	318942 23 h-index	312153 41 g-index
65 all docs	65 docs citations	65 times ranked	3176 citing authors

#	Article	IF	Citations
1	Changes in endothelial glycocalyx layer protective ability after inflammatory stimulus. American Journal of Physiology - Cell Physiology, 2021, 320, C216-C224.	2.1	17
2	Optical Control of CD8+ T Cell Metabolism and Effector Functions. Frontiers in Immunology, 2021, 12, 666231.	2.2	21
3	A predictive model of nanoparticle capture on ultrathin nanoporous membranes. Journal of Membrane Science, 2021, 633, 119357.	4.1	3
4	Development of Mechanical Stability in Late-Stage Embryonic Erythroid Cells: Insights From Fluorescence Imaged Micro-Deformation Studies. Frontiers in Physiology, 2021, 12, 761936.	1.3	1
5	Endothelial Glycocalyx Layer Properties and Its Ability to Limit Leukocyte Adhesion. Biophysical Journal, 2020, 118, 1564-1575.	0.2	20
6	Microvascular Mimetics for the Study of Leukocyteâ€“Endothelial Interactions. Cellular and Molecular Bioengineering, 2020, 13, 125-139.	1.0	16
7	Constitutive Model of Erythrocyte Membranes with Distributions of Spectrin Orientations and Lengths. Biophysical Journal, 2020, 119, 2190-2204.	0.2	8
8	Endothelial cell apicobasal polarity coordinates distinct responses to luminally versus abluminally delivered TNF-Î± in a microvascular mimetic. Integrative Biology (United Kingdom), 2020, 12, 275-289.	0.6	12
9	Ultrathin Dualâ€Scale Nanoâ€and Microporous Membranes for Vascular Transmigration Models. Small, 2019, 15, e1804111.	5.2	30
10	Dualâ€Scale Nanomembranes: Ultrathin Dualâ€Scale Nanoâ€and Microporous Membranes for Vascular Transmigration Models (Small 6/2019). Small, 2019, 15, 1970035.	5.2	0
11	Finite element modeling to analyze TEER values across silicon nanomembranes. Biomedical Microdevices, 2018, 20, 11.	1.4	16
12	Nanoscale physicochemical properties of chainâ€and stepâ€growth polymerized PEG hydrogels affect cellâ€material interactions. Journal of Biomedical Materials Research - Part A, 2017, 105, 1112-1122.	2.1	23
13	Circulating primitive erythroblasts establish a functional, protein 4.1R-dependent cytoskeletal network prior to enucleating. Scientific Reports, 2017, 7, 5164.	1.6	13
14	The 2017 Young Innovators of Cellular and Molecular Bioengineering. Cellular and Molecular Bioengineering, 2017, 10, 339-340.	1.0	0
15	A simple approach for bioactive surface calibration using evanescent waves. Journal of Microscopy, 2016, 262, 245-251.	0.8	1
16	A novel strain energy relationship for red blood cell membrane skeleton based on spectrin stiffness and its application to micropipette deformation. Biomechanics and Modeling in Mechanobiology, 2016, 15, 745-758.	1.4	21
17	Bmi-1 Regulates Extensive Erythroid Self-Renewal. Stem Cell Reports, 2015, 4, 995-1003.	2.3	19
18	Halloysite Nanotube Coatings Suppress Leukocyte Spreading. Langmuir, 2015, 31, 13553-13560.	1.6	7

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19	Immobilized IL-8 Triggers Phagocytosis and Dynamic Changes in Membrane Microtopology in Human Neutrophils. Annals of Biomedical Engineering, 2015, 43, 2207-2219.	1.3	22
20	Piezo1 regulates mechanotransductive release of ATP from human RBCs. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11783-11788.	3.3	156
21	T Cell Receptor Signaling Can Directly Enhance the Avidity of CD28 Ligand Binding. PLoS ONE, 2014, 9, e89263.	1.1	33
22	Highly permeable silicon membranes for shear free chemotaxis and rapid cell labeling. Lab on A Chip, 2014, 14, 2456-2468.	3.1	47
23	Cell Surface Topography Is a Regulator of Molecular Interactions during Chemokine-Induced Neutrophil Spreading. Biophysical Journal, 2014, 107, 1302-1312.	0.2	16
24	Forty-Percent Area Strain in Red Cell Membranes?â€"Doubtful. Biophysical Journal, 2014, 106, 1834-1835.	0.2	4
25	Dynamics of adhesion molecule domains on neutrophil membranes: surfing the dynamic cell topography. European Biophysics Journal, 2013, 42, 851-855.	1.2	5
26	Development of membrane mechanical function during terminal stages of primitive erythropoiesis in mice. Experimental Hematology, 2013, 41, 398-408.e2.	0.2	15
27	Quantifying the Mechanical Properties of the Endothelial Glycocalyx with Atomic Force Microscopy. Journal of Visualized Experiments, 2013, , e50163.	0.2	19
28	Opposing roles for RhoH GTPase during T-cell migration and activation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10474-10479.	3.3	26
29	Uropod elongation is a common final step in leukocyte extravasation through inflamed vessels. Journal of Experimental Medicine, 2012, 209, 1349-1362.	4.2	115
30	Uropod elongation is a common final step in leukocyte extravasation through inflamed vessels. Journal of Cell Biology, 2012, 197, i11-i11.	2.3	0
31	Signaling and Dynamics of Activation of LFA-1 and Mac-1 by Immobilized IL-8. Cellular and Molecular Bioengineering, 2010, 3, 106-116.	1.0	25
32	LFA-1 and Mac-1 Define Characteristically Different Intralumenal Crawling and Emigration Patterns for Monocytes and Neutrophils In Situ. Journal of Immunology, 2010, 185, 7057-7066.	0.4	150
33	Outside-In Signal Transmission by Conformational Changes in Integrin Mac-1. Journal of Immunology, 2009, 183, 6460-6468.	0.4	68
34	Activated Integrin VLA-4 Localizes to the Lamellipodia and Mediates T Cell Migration on VCAM-1. Journal of Immunology, 2009, 183, 359-369.	0.4	64
35	Chapter 1 Membrane Tethers. Current Topics in Membranes, 2009, 64, 3-24.	0.5	6
36	Activation of human neutrophil Mac-1 by anion substitution. Blood Cells, Molecules, and Diseases, 2009, 42, 177-184.	0.6	5

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37	Active Site Formation, Not Bond Kinetics, Limits Adhesion Rate between Human Neutrophils and Immobilized Vascular Cell Adhesion Molecule 1. Biophysical Journal, 2009, 96, 268-275.	0.2	8
38	Adhesion Between Human Neutrophils and Immobilized Endothelial Ligand Vascular Cell Adhesion Molecule 1: Divalent Ion Effects. Biophysical Journal, 2009, 96, 276-284.	0.2	26
39	Molecular Accessibility in Relation to Cell Surface Topography and Compression Against a Flat Substrate. Biophysical Journal, 2009, 97, 369-378.	0.2	7
40	Cell Adhesion Molecule Distribution Relative to Neutrophil Surface Topography Assessed by TIRFM. Biophysical Journal, 2009, 97, 379-387.	0.2	28
41	Integral Protein Linkage and the Bilayer-Skeletal Separation Energy in Red Blood Cells. Biophysical Journal, 2008, 95, 1826-1836.	0.2	24
42	Membrane Mobility of Î²2 Integrins and Rolling Associated Adhesion Molecules in Resting Neutrophils. Biophysical Journal, 2008, 95, 4934-4947.	0.2	21
43	Inhibition of Na+/H+exchanger enhances low pH-induced L-selectin shedding and Î²2-integrin surface expression in human neutrophils. American Journal of Physiology - Cell Physiology, 2008, 295, C1454-C1463.	2.1	14
44	Macâ€1 activation by external anions, glutamate and glucuronate. FASEB Journal, 2007, 21, A1153.	0.2	0
45	Dynamics of Increased Neutrophil Adhesion to ICAM-1 after Contacting Immobilized IL-8. Annals of Biomedical Engineering, 2006, 34, 1553-1563.	1.3	9
46	BOND FORMATION DURING CELL COMPRESSION. , 2006, , 105-122.		4
47	Segregation of adhesion molecules during neutrophil crawling. FASEB Journal, 2006, 20, A648.	0.2	0
48	Micromechanical Tests of Adhesion Dynamics between Neutrophils and Immobilized ICAM-1. Biophysical Journal, 2004, 86, 1223-1233.	0.2	49
49	The Megakaryocyte Lineage Arises in the Yolk Sac and Generates an Initial Wave of Large Embryonic Platelets in the Early Mammalian Embryo.. Blood, 2004, 104, 566-566.	0.6	0
50	Mechanics and Deformability of Hematocytes. , 2002, , 227-239.		1
51	A Microcantilever Device to Assess the Effect of Force on the Lifetime of Selectin-Carbohydrate Bonds. Biophysical Journal, 2001, 80, 668-682.	0.2	152
52	Membrane instability in late-stage erythropoiesis. Blood, 2001, 97, 1869-1875.	0.6	50
53	Fractional occurrence of defects in membranes and mechanically driven interleaflet phospholipid transport. Physical Review E, 2001, 64, 051913.	0.8	30
54	Adaptation and survival of surface-deprived red blood cells in mice. American Journal of Physiology - Cell Physiology, 2000, 279, C970-C980.	2.1	35

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55	Mechanics and Deformability of Hematocytes. The Electrical Engineering Handbook, 1999, , .	0.2	0
56	Passive Mechanical Behavior of Human Neutrophils: Effects of Colchicine and Paclitaxel. Biophysical Journal, 1998, 74, 3282-3291.	0.2	82
57	Surface area and volume changes during maturation of reticulocytes in the circulation of the baboon. Translational Research, 1997, 129, 527-535.	2.4	48
58	Combined use of fluorescence microscopy and micromechanical measurement to assess cell and membrane properties. Pflugers Archiv European Journal of Physiology, 1996, 431, R271-R272.	1.3	1
59	A piconewton force transducer and its application to measurement of the bending stiffness of phospholipid membranes. Annals of Biomedical Engineering, 1996, 24, 595-605.	1.3	129
60	Physical measurements of bilayer-skeletal separation forces. Annals of Biomedical Engineering, 1995, 23, 308-321.	1.3	88
61	Red cell deformability in different vertebrate animals. Clinical Hemorheology and Microcirculation, 1992, 12, 649-656.	0.9	6
62	Forces Shaping an Erythrocyte. , 1987, , 249-260.		0
63	Effects of abnormal cytoskeletal structure on erythrocyte membrane mechanical properties. Cell Motility, 1983, 3, 609-622.	1.9	29