

Christopher M Waters

List of Publications by Year in descending order

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59
papers

2,701
citations

201674

27
h-index

206112

48
g-index

62
all docs

62
docs citations

62
times ranked

3868
citing authors

#	ARTICLE	IF	CITATIONS
1	Epithelial repair mechanisms in the lung. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2010, 298, L715-L731.	2.9	588
2	The detachment strength and morphology of bone cells contacting materials modified with a peptide sequence found within bone sialoprotein. , 1997, 37, 9-19.		170
3	Cyclic mechanical strain increases reactive oxygen species production in pulmonary epithelial cells. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2005, 289, L834-L841.	2.9	165
4	What do we know about mechanical strain in lung alveoli?. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2011, 301, L625-L635.	2.9	143
5	Mechanobiology in Lung Epithelial Cells: Measurements, Perturbations, and Responses. , 2012, 2, 1-29.		82
6	Prostaglandin E ₂ regulates wound closure in airway epithelium. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2001, 280, L421-L431.	2.9	81
7	Autotaxin and LPA1 and LPA5 Receptors Exert Disparate Functions in Tumor Cells versus the Host Tissue Microenvironment in Melanoma Invasion and Metastasis. Molecular Cancer Research, 2015, 13, 174-185.	3.4	74
8	RhoA and Rac1 are both required for efficient wound closure of airway epithelial cells. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2004, 287, L1134-L1144.	2.9	73
9	Keratinocyte growth factor accelerates wound closure in airway epithelium during cyclic mechanical strain. Journal of Cellular Physiology, 1999, 181, 424-432.	4.1	72
10	Mathematical modeling of airway epithelial wound closure during cyclic mechanical strain. Journal of Applied Physiology, 2004, 96, 566-574.	2.5	69
11	Calcium-mediated oxidative stress: a common mechanism in tight junction disruption by different types of cellular stress. Biochemical Journal, 2017, 474, 731-749.	3.7	63
12	Mechanical stretching of alveolar epithelial cells increases Na ⁺ -K ⁺ -ATPase activity. Journal of Applied Physiology, 1999, 87, 715-721.	2.5	61
13	CXCR4 regulates migration of lung alveolar epithelial cells through activation of Rac1 and matrix metalloproteinase-2. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2012, 302, L846-L856.	2.9	61
14	Cellular biomechanics in the lung. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2002, 283, L503-L509.	2.9	59
15	Mechanical stretch decreases migration of alveolar epithelial cells through mechanisms involving Rac1 and Tiam1. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2008, 295, L958-L965.	2.9	57
16	Mechanical strain inhibits repair of airway epithelium in vitro. American Journal of Physiology - Lung Cellular and Molecular Physiology, 1998, 274, L883-L892.	2.9	49
17	Actin re-distribution in response to hydrogen peroxide in airway epithelial cells. Journal of Cellular Physiology, 2004, 199, 57-66.	4.1	49
18	Localized elasticity measured in epithelial cells migrating at a wound edge using atomic force microscopy. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2008, 295, L54-L60.	2.9	49

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19	Polycystin-1 interacts with TAZ to stimulate osteoblastogenesis and inhibit adipogenesis. <i>Journal of Clinical Investigation</i> , 2017, 128, 157-174.	8.2	49
20	Cyclic stretch disrupts apical junctional complexes in Caco-2 cell monolayers by a JNK-2-, c-Src-, and MLCK-dependent mechanism. <i>American Journal of Physiology - Renal Physiology</i> , 2014, 306, G947-G958.	3.4	46
21	Balance of life and death in alveolar epithelial type II cells: proliferation, apoptosis, and the effects of cyclic stretch on wound healing. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2011, 301, L536-L546.	2.9	44
22	Preexposure to hyperoxia causes increased lung injury and epithelial apoptosis in mice ventilated with high tidal volumes. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2010, 299, L711-L719.	2.9	39
23	High tidal volume mechanical ventilation with hyperoxia alters alveolar type II cell adhesion. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2007, 293, L769-L778.	2.9	37
24	Airway Strain during Mechanical Ventilation in an Intact Animal Model. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2007, 176, 786-794.	5.6	35
25	Hyperoxia alters the mechanical properties of alveolar epithelial cells. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2012, 302, L1235-L1241.	2.9	34
26	Sharing the sandbox: Evolutionary mechanisms that maintain bacterial cooperation. <i>F1000Research</i> , 2015, 4, 1504.	1.6	34
27	Mechanical stretch decreases FAK phosphorylation and reduces cell migration through loss of JIP3-induced JNK phosphorylation in airway epithelial cells. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2009, 297, L520-L529.	2.9	32
28	Cyclic Mechanical Stretch Decreases Cell Migration by Inhibiting Phosphatidylinositol 3-Kinase- and Focal Adhesion Kinase-mediated JNK1 Activation. <i>Journal of Biological Chemistry</i> , 2010, 285, 4511-4519.	3.4	32
29	Feedback regulation of <i>Caulobacter crescentus</i> holdfast synthesis by flagellum assembly via the holdfast inhibitor HfiA. <i>Molecular Microbiology</i> , 2018, 110, 219-238.	2.5	32
30	A system to impose prescribed homogenous strains on cultured cells. <i>Journal of Applied Physiology</i> , 2001, 91, 1600-1610.	2.5	31
31	Regulation and function of the two-pore-domain (K2P) potassium channel Trek-1 in alveolar epithelial cells. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2012, 302, L93-L102.	2.9	28
32	The 2-Pore Domain Potassium Channel TREK-1 Regulates Stretch-Induced Detachment of Alveolar Epithelial Cells. <i>PLoS ONE</i> , 2014, 9, e89429.	2.5	24
33	Hyperoxia treatment of TREK-1/TREK-2/TRAAK-deficient mice is associated with a reduction in surfactant proteins. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2017, 313, L1030-L1046.	2.9	23
34	Combating Cholera. <i>F1000Research</i> , 2019, 8, 589.	1.6	20
35	Quorum sensing provides a molecular mechanism for evolution to tune and maintain investment in cooperation. <i>ISME Journal</i> , 2021, 15, 1236-1247.	9.8	18
36	K2P2.1 (TREK-1) potassium channel activation protects against hyperoxia-induced lung injury. <i>Scientific Reports</i> , 2020, 10, 22011.	3.3	16

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37	Chronic hypersensitivity pneumonitis caused by <i>Saccharopolyspora rectivirgula</i> is not associated with a switch to a Th2 response. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2016, 310, L393-L402.	2.9	15
38	Modulation of Radiation Injury Response in Retinal Endothelial Cells by Quinic Acid Derivative KZ-41 Involves p38 MAPK. <i>PLoS ONE</i> , 2014, 9, e100210.	2.5	14
39	Hyperoxia increases the elastic modulus of alveolar epithelial cells through Rho kinase. <i>FEBS Journal</i> , 2014, 281, 957-969.	4.7	13
40	Airway Epithelial Repair by a Prebiotic Mannan Derived from <i>Saccharomyces cerevisiae</i> . <i>Journal of Immunology Research</i> , 2017, 2017, 1-7.	2.2	13
41	TREK-1 protects the heart against ischemia-reperfusion-induced injury and from adverse remodeling after myocardial infarction. <i>Pflugers Archiv European Journal of Physiology</i> , 2019, 471, 1263-1272.	2.8	13
42	Triclosan depletes the membrane potential in <i>Pseudomonas aeruginosa</i> biofilms inhibiting aminoglycoside induced adaptive resistance. <i>PLoS Pathogens</i> , 2020, 16, e1008529.	4.7	11
43	ASK1 Regulates Bleomycin-induced Pulmonary Fibrosis. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2022, 66, 484-496.	2.9	10
44	Steady-State Pleural Fluid Flow and Pressure and the Effects of Lung Buoyancy. <i>Journal of Biomechanical Engineering</i> , 2001, 123, 485-492.	1.3	9
45	Apoptosis signal-regulating kinase-1 promotes inflammasome priming in macrophages. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2019, 316, L418-L427.	2.9	9
46	TREK-1 Regulates Cytokine Secretion from Cultured Human Alveolar Epithelial Cells Independently of Cytoskeletal Rearrangements. <i>PLoS ONE</i> , 2015, 10, e0126781.	2.5	9
47	Live Cell Imaging during Mechanical Stretch. <i>Journal of Visualized Experiments</i> , 2015, , e52737.	0.3	8
48	A heteromeric molecular complex regulates the migration of lung alveolar epithelial cells during wound healing. <i>Scientific Reports</i> , 2017, 7, 2155.	3.3	8
49	Simple, accurate calculation of mechanical power in pressure controlled ventilation (PCV). <i>Intensive Care Medicine Experimental</i> , 2022, 10, .	1.9	8
50	Kymographic Imaging of the Elastic Modulus of Epithelial Cells during the Onset of Migration. <i>Biophysical Journal</i> , 2015, 109, 2051-2057.	0.5	7
51	Dynamic airway constriction in rats: heterogeneity and response to deep inspiration. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2019, 317, L39-L48.	2.9	7
52	Au naturale: use of biologically derived cyclic di-nucleotides for cancer immunotherapy. <i>Open Biology</i> , 2021, 11, 210277.	3.6	2
53	Imaging mechanical strain in small airways before and after acid injury. <i>FASEB Journal</i> , 2008, 22, 763.2.	0.5	0
54	Mechanotransduction and signaling in wounded airway epithelial cells. <i>FASEB Journal</i> , 2009, 23, 772.4.	0.5	0

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55	Dynamic Imaging of Airways During Bronchoconstriction and Deep Inspiration in Intact Rats. FASEB Journal, 2011, 25, 864.12.	0.5	0
56	Insulin Like Growth Factor-1 Stimulates Differentiation of ATII Cells to ATI-Like Cells Through Wnt5a. FASEB Journal, 2012, 26, 698.3.	0.5	0
57	Hyperoxia Increases Elastic Modulus of Alveolar Epithelial Cells Through Rho Kinase. FASEB Journal, 2012, 26, 1063.11.	0.5	0
58	Softening of hyperoxia treated alveolar epithelial cells reduces stretch-induced injury. FASEB Journal, 2013, 27, 914.11.	0.5	0
59	LPS PROMOTES ASC-SPECK FORMATION IN TREK1-DEFICIENT MACROPHAGES. FASEB Journal, 2019, 33, 549075	0.75	0