Brian Button

List of Publications by Year
in descending order

37 papers	3,311 citations	257450 24 h-index	345221 36 g-index
39 all docs	39 docs citations	39 times ranked	3493 citing authors

#	Article	IF	Citations
1	Physiology and pathophysiology of human airway mucus. Physiological Reviews, 2022, 102, 1757-1836.	28.8	78
2	Regional Differences in Mucociliary Clearance in the Upper and Lower Airways. Frontiers in Physiology, 2022, 13, 842592.	2.8	5
3	Mucus concentrationâ€"dependent biophysical abnormalities unify submucosal gland and superficial airway dysfunction in cystic fibrosis. Science Advances, 2022, 8, eabm9718.	10.3	8
4	Mucus-targeting therapies of defective mucus clearance for cystic fibrosis: A short review. Current Opinion in Pharmacology, 2022, 65, 102248.	3.5	5
5	A mucoadhesive biodissolvable thin film for localized and rapid delivery of lidocaine for the treatment of vestibulodynia. International Journal of Pharmaceutics, 2021, , 121288.	5.2	6
6	Airway Mucus Hyperconcentration in Nonâ€"Cystic Fibrosis Bronchiectasis. American Journal of Respiratory and Critical Care Medicine, 2020, 201, 661-670.	5.6	64
7	TMEM16A Potentiation: A Novel Therapeutic Approach for the Treatment of Cystic Fibrosis. American Journal of Respiratory and Critical Care Medicine, 2020, 201, 946-954.	5.6	58
8	GUAIFENESIN MODIFIES AIRWAY MUCUS, REDUCES MUCUS-CELL SURFACE INTERACTIONS, AND INCREASES MUCOCILIARY TRANSPORT IN AN ORGANOTYPIC IN VITRO MODEL OF MUCUS HYPERSECRETION. Chest, 2020, 158, A1682-A1683.	0.8	0
9	The Cystic Fibrosis-Like Airway Surface Layer Is not a Significant Barrier for Delivery of Eluforsen to Airway Epithelial Cells. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2019, 32, 303-316.	1.4	15
10	IL-1Î² dominates the promucin secretory cytokine profile in cystic fibrosis. Journal of Clinical Investigation, 2019, 129, 4433-4450.	8.2	91
11	Adhesive and Cohesive Peel Force Measurement of Human Airway Mucus. Bio-protocol, 2019, 9, .	0.4	6
12	The <i>in vitro</i> effect of nebulised hypertonic saline on human bronchial epithelium. European Respiratory Journal, 2018, 51, 1702652.	6.7	38
13	An integrated mathematical epithelial cell model for airway surface liquid regulation by mechanical forces. Journal of Theoretical Biology, 2018, 438, 34-45.	1.7	12
14	Mucus Hydration in Subjects with Stable Chronic Bronchitis: A Comparison of Spontaneous and Induced Sputum. COPD: Journal of Chronic Obstructive Pulmonary Disease, 2018, 15, 572-580.	1.6	8
15	Roles of mucus adhesion and cohesion in cough clearance. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12501-12506.	7.1	79
16	Mucociliary Clearance in Mice Measured by Tracking Trans-tracheal Fluorescence of Nasally Aerosolized Beads. Scientific Reports, 2018, 8, 14744.	3.3	14
17	Pathological mucus and impaired mucus clearance in cystic fibrosis patients result from increased concentration, not altered pH. European Respiratory Journal, 2018, 52, 1801297.	6.7	92
18	The Relationship of Mucus Concentration (Hydration) to Mucus Osmotic Pressure and Transport in Chronic Bronchitis. American Journal of Respiratory and Critical Care Medicine, 2015, 192, 182-190.	5.6	136

#	ARTICLE	IF	CITATIONS
19	Probing biological nanotopology via diffusion of weakly constrained plasmonic nanorods with optical coherence tomography. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E4289-97.	7.1	43
20	Cystic fibrosis airway secretions exhibit mucin hyperconcentration and increased osmotic pressure. Journal of Clinical Investigation, 2014, 124, 3047-3060.	8.2	272
21	A mechanochemical model for auto-regulation of lung airway surface layer volume. Journal of Theoretical Biology, 2013, 325, 42-51.	1.7	11
22	Mechanosensitive ATP Release Maintains Proper Mucus Hydration of Airways. Science Signaling, 2013, 6, ra46.	3.6	88
23	Monitoring airway mucus flow and ciliary activity with optical coherence tomography. Biomedical Optics Express, 2012, 3, 1978.	2.9	91
24	A Periciliary Brush Promotes the Lung Health by Separating the Mucus Layer from Airway Epithelia. Science, 2012, 337, 937-941.	12.6	649
25	Establishment of Respiratory Airâ€“Liquid Interface Cultures and Their Use in Studying Mucin Production, Secretion, and Function. Methods in Molecular Biology, 2012, 842, 245-258.	0.9	45
26	Airway Surface Liquid Volume Regulation Determines Different Airway Phenotypes in Liddle Compared with Î²ENaC-overexpressing Mice. Journal of Biological Chemistry, 2010, 285, 26945-26955.	3.4	61
27	Osmolytes and ion transport modulators: new strategies for airway surface rehydration. Current Opinion in Pharmacology, 2010, 10, 294-299.	3.5	26
28	CFTR Delivery to 25% of Surface Epithelial Cells Restores Normal Rates of Mucus Transport to Human Cystic Fibrosis Airway Epithelium. PLoS Biology, 2009, 7, e1000155.	5.6	157
29	Role of mechanical stress in regulating airway surface hydration and mucus clearance rates. Respiratory Physiology and Neurobiology, 2008, 163, 189-201.	1.6	129
30	Mathematical Model of Nucleotide Regulation on Airway Epithelia. Journal of Biological Chemistry, 2008, 283, 26805-26819.	3.4	36
31	Differential effects of cyclic and constant stress on ATP release and mucociliary transport by human airway epithelia. Journal of Physiology, 2007, 580, 577-592.	2.9	130
32	REGULATION OF NORMAL AND CYSTIC FIBROSIS AIRWAY SURFACE LIQUID VOLUME BY PHASIC SHEAR STRESS. Annual Review of Physiology, 2006, 68, 543-561.	13.1	213
33	A physical linkage between cystic fibrosis airway surface dehydration and <i>Pseudomonas aeruginosa</i> biofilms. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 18131-18136.	7.1	213
34	Normal and Cystic Fibrosis Airway Surface Liquid Homeostasis. Journal of Biological Chemistry, 2005, 280, 35751-35759.	3.4	298
35	Trends in Lung pH and po2 After Circulatory Arrest: Implications for Non-Heart-Beating Donors and Cell Culture Models of Lung Ischemia-Reperfusion Injury. Journal of Heart and Lung Transplantation, 2005, 24, 2218-2225.	0.6	22
36	Pkc-Mediated Stimulation of Amphibian Cftr Depends on a Single Phosphorylation Consensus Site. Insertion of This Site Confers Pkc Sensitivity to Human Cftr. Journal of General Physiology, 2001, 117, 457-468.	1.9	22

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37	Burn resuscitation. Critical Care Medicine, 1996, 24, 1849-1857.	0.9	88