

# Manfred Frick

## List of Publications by Year in descending order

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98  
papers

3,236  
citations

159358

30  
h-index

174990

52  
g-index

117  
all docs

117  
docs citations

117  
times ranked

4451  
citing authors

#	ARTICLE	IF	CITATIONS
1	SARS-CoV-2 infects and replicates in cells of the human endocrine and exocrine pancreas. <i>Nature Metabolism</i> , 2021, 3, 149-165.	5.1	378
2	Coassembly of Flotillins Induces Formation of Membrane Microdomains, Membrane Curvature, and Vesicle Budding. <i>Current Biology</i> , 2007, 17, 1151-1156.	1.8	226
3	Self-organized array of regularly spaced microbeads in a fiber-optical trap. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003, 20, 1568.	0.9	171
4	Medium throughput breathing human primary cell alveolus-on-chip model. <i>Scientific Reports</i> , 2018, 8, 14359.	1.6	132
5	Modulation of Lateral Diffusion in the Plasma Membrane by Protein Density. <i>Current Biology</i> , 2007, 17, 462-467.	1.8	116
6	Endocytosis of flotillin-1 and flotillin-2 is regulated by Fyn kinase. <i>Journal of Cell Science</i> , 2009, 122, 912-918.	1.2	115
7	Fusion pore expansion is a slow, discontinuous, and Ca <sup>2+</sup> -dependent process regulating secretion from alveolar type II cells. <i>Journal of Cell Biology</i> , 2001, 155, 279-290.	2.3	93
8	Alpha-1 antitrypsin inhibits TMPRSS2 protease activity and SARS-CoV-2 infection. <i>Nature Communications</i> , 2021, 12, 1726.	5.8	86
9	Uptake, Efficacy, and Systemic Distribution of Naked, Inhaled Short Interfering RNA (siRNA) and Locked Nucleic Acid (LNA) Antisense. <i>Molecular Therapy</i> , 2011, 19, 2163-2168.	3.7	84
10	Fusion-activated Ca <sup>2+</sup> entry via vesicular P2X <sub>4</sub> receptors promotes fusion pore opening and exocytotic content release in pneumocytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 14503-14508.	3.3	78
11	Mechanical stretch activates piezo1 in caveolae of alveolar type I cells to trigger ATP release and paracrine stimulation of surfactant secretion from alveolar type II cells. <i>FASEB Journal</i> , 2020, 34, 12785-12804.	0.2	72
12	Actin coating and compression of fused secretory vesicles are essential for surfactant secretion: a role for Rho, formins and myosin II. <i>Journal of Cell Science</i> , 2012, 125, 2765-74.	1.2	63
13	Secretion in Alveolar Type II Cells at the Interface of Constitutive and Regulated Exocytosis. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2001, 25, 306-315.	1.4	60
14	Glucocorticoids Regulate Tight Junction Permeability of Lung Epithelia by Modulating Claudin 8. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2016, 54, 707-717.	1.4	51
15	Tracing surfactant transformation from cellular release to insertion into an air-liquid interface. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2004, 286, L1009-L1015.	1.3	50
16	Ca <sup>2+</sup> entry is essential for cell strain-induced lamellar body fusion in isolated rat type II pneumocytes. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2004, 286, L210-L220.	1.3	48
17	TRPV4 inhibition attenuates stretch-induced inflammatory cellular responses and lung barrier dysfunction during mechanical ventilation. <i>PLoS ONE</i> , 2018, 13, e0196055.	1.1	46
18	Mechanical Forces Impeding Exocytotic Surfactant Release Revealed by Optical Tweezers. <i>Biophysical Journal</i> , 2003, 84, 1344-1351.	0.2	43

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19	Hsp70 facilitates trans-membrane transport of bacterial ADP-ribosylating toxins into the cytosol of mammalian cells. <i>Scientific Reports</i> , 2017, 7, 2724.	1.6	43
20	Surfactant Secretion in LRRK2 Knock-Out Rats: Changes in Lamellar Body Morphology and Rate of Exocytosis. <i>PLoS ONE</i> , 2014, 9, e84926.	1.1	42
21	Carrageenan-containing over-the-counter nasal and oral sprays inhibit SARS-CoV-2 infection of airway epithelial cultures. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2021, 320, L750-L756.	1.3	41
22	Threshold calcium levels for lamellar body exocytosis in type II pneumocytes. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 1999, 277, L893-L900.	1.3	40
23	Spatio-temporal aspects, pathways and actions of Ca <sup>2+</sup> in surfactant secreting pulmonary alveolar type II pneumocytes. <i>Cell Calcium</i> , 2012, 52, 296-302.	1.1	39
24	Imaging P2X4 receptor subcellular distribution, trafficking, and regulation using P2X4-pHluorin. <i>Journal of General Physiology</i> , 2014, 144, 81-104.	0.9	39
25	Inhibition of calcium-triggered secretion by hydrocarbon-stapled peptides. <i>Nature</i> , 2022, 603, 949-956.	13.7	39
26	A small key unlocks a heavy door: The essential function of the small hydrophobic proteins SP-B and SP-C to trigger adsorption of pulmonary surfactant lamellar bodies. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2016, 1863, 2124-2134.	1.9	38
27	The Hsp90 machinery facilitates the transport of diphtheria toxin into human cells. <i>Scientific Reports</i> , 2017, 7, 613.	1.6	36
28	Fusion-Activated Ca <sup>2+</sup> Entry: An "Active Zone" of Elevated Ca <sup>2+</sup> during the Postfusion Stage of Lamellar Body Exocytosis in Rat Type II Pneumocytes. <i>PLoS ONE</i> , 2010, 5, e10982.	1.1	36
29	Actin depolymerisation and crosslinking join forces with myosin II to contract actin coats on fused secretory vesicles. <i>Journal of Cell Science</i> , 2015, 128, 1193-203.	1.2	35
30	Pulmonary Consequences of a Deep Breath Revisited. <i>Neonatology</i> , 2004, 85, 299-304.	0.9	34
31	P2X4 and lysosome fusion. <i>Current Opinion in Pharmacology</i> , 2019, 47, 126-132.	1.7	31
32	Pharmacological cholesterol depletion disturbs ciliogenesis and ciliary function in developing zebrafish. <i>Communications Biology</i> , 2019, 2, 31.	2.0	31
33	Fusion-activated cation entry (FACE) via P2X <sub>4</sub> couples surfactant secretion and alveolar fluid transport. <i>FASEB Journal</i> , 2013, 27, 1772-1783.	0.2	30
34	A new role for P2X4 receptors as modulators of lung surfactant secretion. <i>Frontiers in Cellular Neuroscience</i> , 2013, 7, 171.	1.8	30
35	ATP is stored in lamellar bodies to activate vesicular P2X4 in an autocrine fashion upon exocytosis. <i>Journal of General Physiology</i> , 2018, 150, 277-291.	0.9	30
36	A Tyrosine-Based Trafficking Motif of the Tegument Protein pUL71 Is Crucial for Human Cytomegalovirus Secondary Envelopment. <i>Journal of Virology</i> , 2018, 92, .	1.5	30

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37	Human lung fibroblast-to-myofibroblast transformation is not driven by an LDH5-dependent metabolic shift towards aerobic glycolysis. <i>Respiratory Research</i> , 2019, 20, 87.	1.4	30
38	Combined Atomic Force Microscopy–Fluorescence Microscopy: Analyzing Exocytosis in Alveolar Type II Cells. <i>Analytical Chemistry</i> , 2012, 84, 5716-5722.	3.2	28
39	Recapitulating idiopathic pulmonary fibrosis related alveolar epithelial dysfunction in a human iPSC–derived air–liquid interface model. <i>FASEB Journal</i> , 2020, 34, 7825-7846.	0.2	28
40	Mechanisms of Surfactant Exocytosis in Alveolar Type II Cells In Vitro and In Vivo. <i>Physiology</i> , 2001, 16, 239-243.	1.6	27
41	Pulmonary surfactant protein SP–B promotes exocytosis of lamellar bodies in alveolar type II cells. <i>FASEB Journal</i> , 2018, 32, 4600-4611.	0.2	26
42	IL-13 Impairs Tight Junctions in Airway Epithelia. <i>International Journal of Molecular Sciences</i> , 2019, 20, 3222.	1.8	26
43	P2 Purinergic Signaling in the Distal Lung in Health and Disease. <i>International Journal of Molecular Sciences</i> , 2020, 21, 4973.	1.8	26
44	Actin and Myosin in Non-Neuronal Exocytosis. <i>Cells</i> , 2020, 9, 1455.	1.8	26
45	A Fluorescent Microplate Assay for Exocytosis in Alveolar Type II Cells. <i>Journal of Biomolecular Screening</i> , 2006, 11, 286-295.	2.6	22
46	Deuterium Oxide Dilution: A Novel Method to Study Apical Water Layers and Transepithelial Water Transport. <i>Analytical Chemistry</i> , 2013, 85, 4247-4250.	3.2	22
47	Physiological and Immune-Biological Characterization of a Long-Term Murine Model of Blunt Chest Trauma. <i>Shock</i> , 2015, 43, 140-147.	1.0	21
48	Inflammation-induced upregulation of P2X <sub>4</sub> expression augments mucin secretion in airway epithelia. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2019, 316, L58-L70.	1.3	21
49	Complement C5a Alters the Membrane Potential of Neutrophils during Hemorrhagic Shock. <i>Mediators of Inflammation</i> , 2018, 2018, 1-12.	1.4	20
50	Synaptotagmin-7 links fusion-activated Ca <sup>2+</sup> entry (FACE) and fusion pore dilation. <i>Journal of Cell Science</i> , 2014, 127, 5218-27.	1.2	18
51	Different roles of the small GTPases Rac1, Cdc42, and RhoG in CAEB/NGC–induced dendritic tree complexity. <i>Journal of Neurochemistry</i> , 2016, 139, 26-39.	2.1	17
52	Molecular basis of early epithelial response to streptococcal exotoxin: role of STIM1 and Orai1 proteins. <i>Cellular Microbiology</i> , 2012, 14, 299-315.	1.1	16
53	Water Permeability Adjusts Resorption in Lung Epithelia to Increased Apical Surface Liquid Volumes. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2017, 56, 372-382.	1.4	16
54	Amiloride-sensitive fluid resorption in NCI-H441 lung epithelia depends on an apical Cl <sup>-</sup> conductance. <i>Physiological Reports</i> , 2014, 2, e00201.	0.7	14

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55	Retinoic acid signalling adjusts tight junction permeability in response to air-liquid interface conditions. <i>Cellular Signalling</i> , 2020, 65, 109421.	1.7	14
56	TGF- $\beta$ 1 increases permeability of ciliated airway epithelia via redistribution of claudin 3 from tight junction into cell nuclei. <i>Pflügers Archiv European Journal of Physiology</i> , 2021, 473, 287-311.	1.3	14
57	An ultra fast detection method reveals strain-induced Ca <sup>2+</sup> entry via TRPV2 in alveolar type II cells. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012, 11, 959-971.	1.4	13
58	Pharmacological targeting of host chaperones protects from pertussis toxin in vitro and in vivo. <i>Scientific Reports</i> , 2021, 11, 5429.	1.6	13
59	Phagocytosis of Human Retinal Pigment Epithelial Cells: Evidence of a Diurnal Rhythm, Involvement of the Cytoskeleton and Interference of Antiviral Drugs. <i>Ophthalmic Research</i> , 2006, 38, 164-174.	1.0	12
60	Inhibition by cytoplasmic nucleotides of a new cation channel in freshly isolated human and rat type II pneumocytes. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2004, 287, L1284-L1292.	1.3	11
61	Ca <sup>2+</sup> Induced Surfactant Secretion in Alveolar Type II Cultures Isolated from the H-2K <sup>b</sup> -tsA58 Transgenic Mouse. <i>Cellular Physiology and Biochemistry</i> , 2005, 15, 159-166.	1.1	10
62	Characterization and Pharmacological Inhibition of the Pore-Forming <i>Clostridioides difficile</i> CDTb Toxin. <i>Toxins</i> , 2021, 13, 390.	1.5	10
63	Mucins MUC5AC and MUC5B Are Variably Packaged in the Same and in Separate Secretory Granules. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2022, 206, 1081-1095.	2.5	10
64	P2X <sub>4</sub> receptor re-sensitization depends on a protonation/deprotonation cycle mediated by receptor internalization and recycling. <i>Journal of Physiology</i> , 2018, 596, 4893-4907.	1.3	9
65	Revisiting an old antibiotic: bacitracin neutralizes binary bacterial toxins and protects cells from intoxication. <i>FASEB Journal</i> , 2019, 33, 5755-5771.	0.2	9
66	Sensory contact to the stressor prevents recovery from structural and functional heart damage following psychosocial trauma. <i>Brain, Behavior, and Immunity</i> , 2019, 80, 667-677.	2.0	9
67	Ion and Water Transport in Neutrophil Granulocytes and Its Impairment during Sepsis. <i>International Journal of Molecular Sciences</i> , 2021, 22, 1699.	1.8	9
68	Role of the C5a-C5a receptor axis in the inflammatory responses of the lungs after experimental polytrauma and hemorrhagic shock. <i>Scientific Reports</i> , 2021, 11, 2158.	1.6	9
69	Inhibition of ATP-induced surfactant exocytosis by dihydropyridine (DHP) derivatives: a non-stereospecific, photoactivated effect and independent of L-type Ca <sup>2+</sup> channels. <i>Biochemical Pharmacology</i> , 2001, 61, 1161-1167.	2.0	8
70	Hyperglycemia, oxidative stress, and the diaphragm: a link between chronic co-morbidity and acute stress?. <i>Critical Care</i> , 2014, 18, 149.	2.5	8
71	Role of the Purinergic Receptor P2XR4 After Blunt Chest Trauma in Cigarette Smoke-Exposed Mice. <i>Shock</i> , 2017, 47, 193-199.	1.0	8
72	Inhibition of <i>Clostridioides difficile</i> Toxins TcdA and TcdB by Ambroxol. <i>Frontiers in Pharmacology</i> , 2021, 12, 809595.	1.6	8

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73	Vesicular calcium channels as regulators of the exocytotic post-fusion phase. <i>Communicative and Integrative Biology</i> , 2011, 4, 796-798.	0.6	7
74	A Novel Fibroblast Reporter Cell Line for in vitro Studies of Pulmonary Fibrosis. <i>Frontiers in Physiology</i> , 2020, 11, 567675.	1.3	7
75	Insights Into Development and Progression of Idiopathic Pulmonary Fibrosis From Single Cell RNA Studies. <i>Frontiers in Medicine</i> , 2020, 7, 611728.	1.2	7
76	Super-resolution microscopy unveils transmembrane domain-mediated internalization of cross-reacting material 197 into diphtheria toxin-resistant mouse J774A.1 cells and primary rat fibroblasts in vitro. <i>Archives of Toxicology</i> , 2020, 94, 1753-1761.	1.9	6
77	Long-term induction of a unique $Cl^{-}$ current by endothelin-1 in an epithelial cell line from rat lung: evidence for regulation of cytoplasmic calcium. <i>Journal of Physiology</i> , 1998, 511, 55-65.	1.3	5
78	Combined optical tweezers and optical stretcher in microscopy. , 2001, , .		5
79	Performance Testing of <i>RREB1</i> , <i>MYB</i> , and <i>CCND1</i> Fluorescence In Situ Hybridization in Spindle-Cell and Desmoplastic Melanoma Argues for a Two-Step Test Algorithm. <i>International Journal of Surgical Pathology</i> , 2017, 25, 148-157.	0.4	5
80	Cells respond to deletion of <i>CAV1</i> by increasing synthesis of extracellular matrix. <i>PLoS ONE</i> , 2018, 13, e0205306.	1.1	5
81	Channels and Transporters of the Pulmonary Lamellar Body in Health and Disease. <i>Cells</i> , 2022, 11, 45.	1.8	5
82	Supramolecular Toxin Complexes for Targeted Pharmacological Modulation of Polymorphonuclear Leukocyte Functions. <i>Advanced Healthcare Materials</i> , 2019, 8, 1900665.	3.9	4
83	A PCB-Based 24-Ch. MEA-EIS Allowing Fast Measurement of TEER. <i>IEEE Sensors Journal</i> , 2021, 21, 13048-13059.	2.4	4
84	The Pore-Forming Subunit C2IIa of the Binary Clostridium botulinum C2 Toxin Reduces the Chemotactic Translocation of Human Polymorphonuclear Leukocytes. <i>Frontiers in Pharmacology</i> , 2022, 13, 810611.	1.6	4
85	Serially passaged, conditionally reprogrammed nasal epithelial cells as a model to study epithelial functions and SARS-CoV-2 infection. <i>American Journal of Physiology - Cell Physiology</i> , 2022, 322, C591-C604.	2.1	2
86	Vesicular control of fusion pore expansion. <i>Communicative and Integrative Biology</i> , 2015, 8, e1018496.	0.6	1
87	In Vitro Measurements of Cellular Forces and their Importance in the Lung From the Sub- to the Multicellular Scale. <i>Life</i> , 2021, 11, 691.	1.1	1
88	WS15.1 Volume increase in alveolar type II cells following fusion dependent activation of P2X4 receptors on lamellar bodies - linking secretion and fluid transport in the lung?. <i>Journal of Cystic Fibrosis</i> , 2012, 11, S33.	0.3	0
89	The breathing lung-on-chip model for routine laboratory application. <i>Toxicology Letters</i> , 2017, 280, S272.	0.4	0
90	Targeted Protein Delivery: Supramolecular Toxin Complexes for Targeted Pharmacological Modulation of Polymorphonuclear Leukocyte Functions (Adv. Healthcare Mater. 17/2019). <i>Advanced Healthcare Materials</i> , 2019, 8, 1970072.	3.9	0

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91	Recapitulating Epithelial Dysfunction in the Context of Idiopathic Pulmonary Fibrosis Using an iPSC Derived Air-Liquid Interface Model of Alveolar Epithelial Differentiation. , 2019, , .		0
92	Inhibition of Airway Epithelial Snare/Synaptotagmin Mediated Membrane Fusion by Hydrocarbon-Stapled Peptides. Biophysical Journal, 2020, 118, 399a-400a.	0.2	0
93	Complementary roles for Rock1 and myosin light chain kinase in actin coat compression on fused secretory vesicles (538.4). FASEB Journal, 2014, 28, 538.4.	0.2	0
94	Apical volume expansion results in an immediate ENaC activation but in delayed onset of water resorption (718.1). FASEB Journal, 2014, 28, 718.1.	0.2	0
95	LATE-BREAKING ABSTRACT: Interfacial sensing a new regulator of pulmonary epithelial barrier function. , 2016, , .		0
96	Measuring the Action of Oligonucleotide Therapeutics in the Lung at the Cell Type-Specific Level by Tissue Disruption and Cell Sorting (TDCS). Methods in Molecular Biology, 2019, 2036, 187-203.	0.4	0
97	IPF-relevant cytokine cocktail induced changes in iPSC-derived alveolar epithelial and primary airway basal cell differentiation. , 2019, , .		0
98	The Idiopathic Pulmonary Fibrosis-Associated SNP rs35705950 Is Transcribed in a MUC5B Promoter Associated Long Non-Coding RNA (AC061979.1). , 2022, , .		0