Christian MÃ¼hlfeld

List of Publications by Year
in descending order

122 papers	4,858 citations	147801 31 h-index	106344 65 g-index
168 all docs	168 docs citations	168 times ranked	8196 citing authors

#	Article	IF	Citations
1	Cardioprotection and lifespan extension by the natural polyamine spermidine. Nature Medicine, 2016, 22, 1428-1438.	30.7	801
2	Quantitative Evaluation of Cellular Uptake and Trafficking of Plain and Polyethylene Glycolâ€Coated Gold Nanoparticles. Small, 2010, 6, 1669-1678.	10.0	313
3	Cholinergic chemosensory cells in the trachea regulate breathing. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9478-9483.	7.1	233
4	Interactions of nanoparticles with pulmonary structures and cellular responses. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2008, 294, L817-L829.	2.9	183
5	Quantitative microscopy of the lung: a problem-based approach. Part 1: basic principles of lung stereology. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2013, 305, L15-L22.	2.9	148
6	Increased Airway Smooth Muscle Mass in Children with Asthma, Cystic Fibrosis, and Non-Cystic Fibrosis Bronchiectasis. American Journal of Respiratory and Critical Care Medicine, 2008, 177, 837-843.	5.6	145
7	A review of state-of-the-art stereology for better quantitative 3D morphology in cardiac research. Cardiovascular Pathology, 2010, 19, 65-82.	1.6	144
8	Alteration of the Pulmonary Surfactant System in Full-Term Infants with Hereditary ABCA3 Deficiency. American Journal of Respiratory and Critical Care Medicine, 2006, 174, 571-580.	5.6	140
9	Quantitative microscopy of the lung: a problem-based approach. Part 2: stereological parameters and study designs in various diseases of the respiratory tract. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2013, 305, L205-L221.	2.9	116
10	Visualization and quantitative analysis of nanoparticles in the respiratory tract by transmission electron microscopy. Particle and Fibre Toxicology, 2007, 4, 11.	6.2	114
11	Mechanisms of lung aging. Cell and Tissue Research, 2017, 367, 469-480.	2.9	111
12	Nicotinamide for the treatment of heart failure with preserved ejection fraction. Science Translational Medicine, 2021, 13, .	12.4	109
13	Translocation and cellular entering mechanisms of nanoparticles in the respiratory tract. Swiss Medical Weekly, 2008, 138, 387-91.	1.6	96
14	Mitochondrial biogenesis and PGC-1Î± deacetylation by chronic treadmill exercise: differential response in cardiac and skeletal muscle. Basic Research in Cardiology, 2011, 106, 1221-1234.	5.9	82
15	Truncated recombinant human SP-D attenuates emphysema and type II cell changes in SP-D deficient mice. Respiratory Research, 2007, 8, 70.	3.6	76
16	Assessment of cardiac fibrosis: a morphometric method comparison for collagen quantification. Journal of Applied Physiology, 2017, 122, 1019-1030.	2.5	75
17	Intracellular imaging of nanoparticles: Is it an elemental mistake to believe what you see?. Particle and Fibre Toxicology, 2010, 7, 15.	6.2	71
18	Re-evaluation of pulmonary titanium dioxide nanoparticle distribution using the "relative deposition index": Evidence for clearance through microvasculature. Particle and Fibre Toxicology, 2007, 4, 7.	6.2	64

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19	Dietary spermidine for lowering high blood pressure. Autophagy, 2017, 13, 767-769.	9.1	63
20	Effect of voluntary exercise on number and volume of cardiomyocytes and their mitochondria in the mouse left ventricle. Basic Research in Cardiology, 2008, 103, 12-21.	5.9	62
21	Aging exacerbates acute lung injury-induced changes of the air-blood barrier, lung function, and inflammation in the mouse. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2017, 312, L1-L12.	2.9	62
22	Age-Related Structural and Functional Changes in the Mouse Lung. Frontiers in Physiology, 2019, 10, 1466.	2.8	55
23	Stereology and Morphometry of Lung Tissue. Methods in Molecular Biology, 2012, 931, 367-390.	0.9	54
24	A Novel Quantitative Method for Analyzing the Distributions of Nanoparticles Between Different Tissue and Intracellular Compartments. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2007, 20, 395-407.	1.2	47
25	How common is the lipid body-containing interstitial cell in the mammalian lung?. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2014, 307, L386-L394.	2.9	47
26	Cancer Induces Cardiomyocyte Remodeling and Hypoinnervation in the Left Ventricle of the Mouse Heart. PLoS ONE, 2011, 6, e20424.	2.5	46
27	Disruption of the Hepcidin/Ferroportin Regulatory System Causes Pulmonary Iron Overload and Restrictive Lung Disease. EBioMedicine, 2017, 20, 230-239.	6.1	45
28	Surfactant replacement therapy reduces acute lung injury and collapse induration-related lung remodeling in the bleomycin model. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2017, 313, L313-L327.	2.9	39
29	Burst-Like Transcription of Mutant and Wildtype MYH7-Alleles as Possible Origin of Cell-to-Cell Contractile Imbalance in Hypertrophic Cardiomyopathy. Frontiers in Physiology, 2018, 9, 359.	2.8	39
30	A review of recent developments and applications of morphometry/stereology in lung research. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2015, 309, L526-L536.	2.9	38
31	A lung tropic AAV vector improves survival in a mouse model of surfactant B deficiency. Nature Communications, 2020, 11, 3929.	12.8	37
32	Is Length an Appropriate Estimator to Characterize Pulmonary Alveolar Capillaries? A Critical Evaluation in the Human Lung. Anatomical Record, 2010, 293, 1270-1275.	1.4	33
33	Using electron microscopes to look into the lung. Histochemistry and Cell Biology, 2016, 146, 695-707.	1.7	32
34	Handsâ€on or no handsâ€on training in ultrasound imaging: A randomized trial to evaluate learning outcomes and speed of recall of topographic anatomy. Anatomical Sciences Education, 2018, 11, 575-591.	3.7	31
35	Contractile function is preserved in unloaded hearts despite atrophic remodeling. Journal of Thoracic and Cardiovascular Surgery, 2009, 137, 742-746.	0.8	30
36	Assessing particle and fiber toxicology in the respiratory system: the stereology toolbox. Particle and Fibre Toxicology, 2015, 12, 35.	6.2	30

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37	High-pressure freezing and freeze substitution of rat myocardium for immunogold labeling of connexin 43. The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology, 2006, 288A, 1059-1067.	2.0	29
38	Thrombin stimulates albumin transcytosis in lung microvascular endothelial cells via activation of acid sphingomyelinase. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2016, 310, L720-L732.	2.9	29
39	Early-stage heart failure with preserved ejection fraction in the pig: a cardiovascular magnetic resonance study. Journal of Cardiovascular Magnetic Resonance, 2016, 18, 63.	3.3	29
40	Digital 3D reconstructions using histological serial sections of lung tissue including the alveolar capillary network. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2017, 312, L243-L257.	2.9	28
41	On the Topological Complexity of Human Alveolar Epithelial Type 1 Cells. American Journal of Respiratory and Critical Care Medicine, 2019, 199, 1153-1156.	5.6	26
42	Macroscopic to microscopic scales of particle dosimetry: from source to fate in the body. Air Quality, Atmosphere and Health, 2012, 5, 169-187.	3.3	25
43	Expression of fibulin-6 in failing hearts and its role for cardiac fibroblast migration. Cardiovascular Research, 2014, 103, 509-520.	3.8	25
44	Estimation of the number of alveolar capillaries by the Euler number (Euler-PoincarÃ© characteristic). American Journal of Physiology - Lung Cellular and Molecular Physiology, 2015, 309, L1286-L1293.	2.9	25
45	An unbiased stereological method for efficiently quantifying the innervation of the heart and other organs based on total length estimations. Journal of Applied Physiology, 2010, 108, 1402-1409.	2.5	24
46	Differential effects of long and short carbon nanotubes on the gas-exchange region of the mouse lung. Nanotoxicology, 2012, 6, 867-879.	3.0	24
47	Exogenous surfactant in ischemia/reperfusion: Effects on endogenous surfactant pools. Journal of Heart and Lung Transplantation, 2010, 29, 327-334.	0.6	23
48	Quantitative morphology of the vascularisation of organs: A stereological approach illustrated using the cardiac circulation. Annals of Anatomy, 2014, 196, 12-19.	1.9	23
49	Aging impairs alveolar epithelial type II cell function in acute lung injury. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2020, 319, L755-L769.	2.9	23
50	Capillary Changes Precede Disordered Alveolarization in a Mouse Model of Bronchopulmonary Dysplasia. American Journal of Respiratory Cell and Molecular Biology, 2021, 65, 81-91.	2.9	22
51	Particles induce apical plasma membrane enlargement in epithelial lung cell line depending on particle surface area dose. Respiratory Research, 2009, 10, 22.	3.6	21
52	Myocardial remodelling in left ventricular atrophy induced by caloric restriction. Journal of Anatomy, 2012, 220, 179-185.	1.5	21
53	Experimentally induced intrauterine growth restriction in rabbits leads to differential remodelling of left versus right ventricular myocardial microstructure. Histochemistry and Cell Biology, 2017, 148, 557-567.	1.7	21
54	Exogenous surfactant application in a rat lung ischemia reperfusion injury model: effects on edema formation and alveolar type II cells. Respiratory Research, 2008, 9, 5.	3.6	20

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55	Lung preservation in experimental ischemia/reperfusion injury and lung transplantation: A comparison of natural and synthetic surfactants. Journal of Heart and Lung Transplantation, 2012, 31, 85-93.	0.6	20
56	Arterial hypertension drives arrhythmia progression via specific structural remodeling in a porcine model of atrial fibrillation. Heart Rhythm, 2018, 15, 1328-1336.	0.7	19
57	Distribution of intracellular and secreted surfactant during postnatal rat lung development. Pediatric Pulmonology, 2007, 42, 548-562.	2.0	18
58	Stereological characterization of left ventricular cardiomyocytes, capillaries, and innervation in the nondiabetic, obese mouse. Cardiovascular Pathology, 2012, 21, 346-354.	1.6	18
59	Differences in ischemic damage between young and old hearts â€" Effects of blood cardioplegia. Experimental Gerontology, 2015, 67, 3-8.	2.8	18
60	Quantification of muscle pathology in infantile Pompe disease. Neuromuscular Disorders, 2017, 27, 141-152.	0.6	18
61	Recent developments in 3-D reconstruction and stereology to study the pulmonary vasculature. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2018, 315, L173-L183.	2.9	18
62	Loss of autophagy protein ATG5 impairs cardiac capacity in mice and humans through diminishing mitochondrial abundance and disrupting Ca2+ cycling. Cardiovascular Research, 2022, 118, 1492-1505.	3.8	18
63	Impact of preservation solution on the extent of blood-air barrier damage and edema formation in experimental lung transplantation. Anatomical Record, 2007, 290, 491-500.	1.4	17
64	Allometry of the mammalian intracellular pulmonary surfactant system. Journal of Applied Physiology, 2010, 109, 1662-1669.	2.5	16
65	Identification of MYOM2 as a candidate gene in hypertrophic cardiomyopathy and tetralogy of fallot and its functional evaluation in the Drosophila heart. DMM Disease Models and Mechanisms, 2020, 13, .	2.4	16
66	Spermidine supplementation influences mitochondrial number and morphology in the heart of aged mice. Journal of Anatomy, 2023, 242, 91-101.	1.5	16
67	Methylprednisolone Fails to Preserve Pulmonary Surfactant and Bloodâ€"Air Barrier Integrity in a Porcine Cardiopulmonary Bypass Model. Journal of Surgical Research, 2008, 146, 57-65.	1.6	15
68	Spermidine and Voluntary Activity Exert Differential Effects on Sucrose- Compared with Fat-Induced Systemic Changes in Male Mice. Journal of Nutrition, 2019, 149, 451-462.	2.9	15
69	The number of cardiac myocytes in the hypertrophic and hypotrophic left ventricle of the obese and calorieâ€restricted mouse heart. Journal of Anatomy, 2014, 225, 539-547.	1.5	14
70	Mesenchymal stem cell pretreatment of non-heart-beating-donors in experimental lung transplantation. Journal of Cardiothoracic Surgery, 2014, 9, 151.	1.1	14
71	Controlled lung reperfusion to reduce pulmonary ischaemia/reperfusion injury after cardiopulmonary bypass in a porcine model. Interactive Cardiovascular and Thoracic Surgery, 2014, 19, 962-970.	1.1	14
72	Cellular and acellular ex vivo lung perfusion preserve functional lung ultrastructure in a large animal model: a stereological study. Respiratory Research, 2018, 19, 238.	3.6	14

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73	Estimation of absolute number of alveolar epithelial type 2 cells in mouse lungs: a comparison between stereology and flow cytometry. Journal of Microscopy, 2019, 275, 36-50.	1.8	14
74	Assessment of the Alveolar Capillary Network in the Postnatal Mouse Lung in 3D Using Serial Block-Face Scanning Electron Microscopy. Frontiers in Physiology, 2019, 10, 1357.	2.8	14
75	Hypoinnervation is an early event in experimental myocardial remodelling induced by pressure overload. Journal of Anatomy, 2013, 222, 634-644.	1.5	13
76	Low testosterone in ApoE/LDL receptor double-knockout mice is associated with rarefied testicular capillaries together with fewer and smaller Leydig cells. Scientific Reports, 2018, 8, 5424.	3.3	13
77	Lipofibroblasts in Structurally Normal, Fibrotic and Emphysematous Human Lungs. American Journal of Respiratory and Critical Care Medicine, 2021, 204, 227-230.	5.6	13
78	Volume-CLEM: a method for correlative light and electron microscopy in three dimensions. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2019, 317, L778-L784.	2.9	12
79	Dietary Carbohydrates and Fat Induce Distinct Surfactant Alterations in Mice. American Journal of Respiratory Cell and Molecular Biology, 2021, 64, 379-390.	2.9	12
80	Myocardial ischemia tolerance in the newborn rat involving opioid receptors and mitochondrial k+ channels. The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology, 2006, 288A, 297-303.	2.0	11
81	Alveolar Epithelial Type II Cells and Their Microenvironment in the Caveolinâ€1â€Deficient Mouse. Anatomical Record, 2012, 295, 196-200.	1.4	11
82	Is Warm or Cold Calafiore Blood Cardioplegia Better? Hemodynamic, Metabolic, and Electron Microscopic Differences. Thoracic and Cardiovascular Surgeon, 2014, 62, 683-689.	1.0	11
83	A transmural gradient of myocardial remodeling in earlyâ€stage heart failure with preserved ejection fraction in the pig. Journal of Anatomy, 2020, 236, 531-539.	1.5	10
84	Systemic, but not cardiomyocyte-specific, deletion of the natriuretic peptide receptor guanylyl cyclase A increases cardiomyocyte number in neonatal mice. Histochemistry and Cell Biology, 2015, 144, 365-375.	1.7	9
85	Postnatal development of the bronchiolar club cells of distal airways in the mouse lung: stereological and molecular biological studies. Cell and Tissue Research, 2016, 364, 543-557.	2.9	9
86	Voluntary Activity Modulates Sugar-Induced Elastic Fiber Remodeling in the Alveolar Region of the Mouse Lung. International Journal of Molecular Sciences, 2019, 20, 2438.	4.1	9
87	Novel cell contact between podocyte microprojections and parietal epithelial cells analyzed by volume electron microscopy. American Journal of Physiology - Renal Physiology, 2020, 318, F1246-F1251.	2.7	9
88	miR-21-KO Alleviates Alveolar Structural Remodeling and Inflammatory Signaling in Acute Lung Injury. International Journal of Molecular Sciences, 2020, 21, 822.	4.1	9
89	Combination of ÂµCT and light microscopy for generation-specific stereological analysis of pulmonary arterial branches: a proof-of-concept study. Histochemistry and Cell Biology, 2021, 155, 227-239.	1.7	8
90	Stereology and three-dimensional reconstructions to analyze the pulmonary vasculature. Histochemistry and Cell Biology, 2021, 156, 83-93.	1.7	7

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91	Measuring structure â€“ What's the point in counting?. Annals of Anatomy, 2014, 196, 1-2.	1.9	6
92	Phosphorylation of Extrajunctional Cx43 in Ischemic-Preconditioned Rat Hearts. Journal of Surgical Research, 2010, 162, e1-e8.	1.6	5
93	Low-dose adrenomedullin-2/intermedin(8â€“47) reduces pulmonary ischemia/reperfusion injury. Peptides, 2014, 62, 49-54.	2.4	5
94	Cardiomyocyte loss is not required for the progression of left ventricular hypertrophy induced by pressure overload in female mice. Journal of Anatomy, 2016, 229, 75-81.	1.5	5
95	Effect of irradiation/bone marrow transplantation on alveolar epithelial type II cells is aggravated in surfactant protein D deficient mice. Histochemistry and Cell Biology, 2017, 147, 49-61.	1.7	5
96	Cardioprotection by spermidine does not depend on structural characteristics of the myocardial microcirculation in aged mice. Experimental Gerontology, 2019, 119, 82-88.	2.8	5
97	Airâ€“blood barrier thickening and alterations of alveolar epithelial type 2 cells in mouse lungs with disrupted hepcidin/ferroportin regulatory system. Histochemistry and Cell Biology, 2019, 151, 217-228.	1.7	5
98	Spermidine supplementation and voluntary activity differentially affect obesity-related structural changes in the mouse lung. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2020, 319, L312-L324.	2.9	5
99	The Three-Dimensional Ultrastructure of the Human Alveolar Epithelium Revealed by Focused Ion Beam Electron Microscopy. International Journal of Molecular Sciences, 2020, 21, 1089.	4.1	5
100	Surfactant application in experimental lung transplantation. Journal of Heart and Lung Transplantation, 2013, 32, 355-359.	0.6	4
101	Allometry of left ventricular myocardial innervation. Journal of Anatomy, 2014, 224, 518-526.	1.5	4
102	Development, remodeling and regeneration of the lung: coping with the structural and functional challenges of breathing. Cell and Tissue Research, 2017, 367, 407-411.	2.9	4
103	Influence of Medication-Induced Preconditioning or Remote Ischemic Preconditioning on the Intrinsic Vascular Extracellular RNA/Ribonuclease System in Cardioprotection. Thoracic and Cardiovascular Surgeon, 2019, 67, 494-501.	1.0	4
104	The plate body: 3D ultrastructure of a facultative organelle of alveolar epithelial type II cells involved in SP-A trafficking. Histochemistry and Cell Biology, 2021, 155, 261-269.	1.7	4
105	Introduction: 3D imaging in lung biology. Histochemistry and Cell Biology, 2021, 155, 159-162.	1.7	4
106	Design-Based Stereology of the Lung in the Hyperoxic Preterm Rabbit Model of Bronchopulmonary Dysplasia. Oxidative Medicine and Cellular Longevity, 2021, 2021, 1-12.	4.0	4
107	Voluntary activity reverses spermidine-induced myocardial fibrosis and lipid accumulation in the obese male mouse. Histochemistry and Cell Biology, 2021, 155, 75-88.	1.7	4
108	Staining histological lung sections with Sudan Black B or Sudan III for automated identification of alveolar epithelial type II cells. Acta Histochemica, 2015, 117, 675-680.	1.8	3

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109	The effect of amifostine on lung ischaemiaâ€“reperfusion injury in rats. Interactive Cardiovascular and Thoracic Surgery, 2016, 23, 273-279.	1.1	3
110	Stereological assessment of the bloodâ€“air barrier and the surfactant system after mesenchymal stem cell pretreatment in a porcine nonâ€heartâ€beating donor model for lung transplantation. Journal of Anatomy, 2018, 232, 283-295.	1.5	3
111	High-Pressure Freezing, Chemical Fixation and Freeze-Substitution for Immuno-electron Microscopy. Methods in Molecular Biology, 2010, 611, 87-101.	0.9	3
112	Methodological Progress of Stereology in Cardiac Research and Its Application to Normal and Pathological Heart Development. Cells, 2022, 11, 2032.	4.1	3
113	Cancer cachexia alters intracellular surfactant metabolism but not total alveolar surface area. Histochemistry and Cell Biology, 2012, 138, 803-813.	1.7	2
114	Effects of Lewis lung carcinoma and B16 melanoma on the innervation of the mouse trachea. Autonomic Neuroscience: Basic and Clinical, 2014, 183, 106-110.	2.8	2
115	Lipidâ€body containing interstitial cells (lipofibroblasts) in the lungs of various mouse strains. Journal of Anatomy, 2017, 231, 970-977.	1.5	2
116	Blood cardioplegia for cardiac surgery in acute myocardial infarction: rat experiments with two widely used solutions. Interactive Cardiovascular and Thoracic Surgery, 2018, 27, 88-94.	1.1	2
117	Localization of Exogenous Mesenchymal Stem Cells in a Pig Model of Lung Transplantation. Thoracic and Cardiovascular Surgeon, 2018, 66, 063-070.	1.0	2
118	Cardioprotection with esmolol-based cardioplegia for non-infarcted and infarcted rat hearts. European Journal of Cardio-thoracic Surgery, 2021, 60, 908-917.	1.4	2
119	Evaluation of classifications of the monopodial bronchopulmonary vasculature using clustering methods. Histochemistry and Cell Biology, 0, , .	1.7	2
120	Call for Papers: â€œMorphology is the link between genetics and functionâ€: a tribute to Ewald R. Weibel. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2021, 320, L254-L256.	2.9	1
121	Evaluating registrations of serial sections with distortions of the ground truths. IEEE Access, 2021, , 1-1.	4.2	1
122	Number of Primordial Follicles in Juvenile Ringed Seals (Pusa hispida) from the Gulf of Bothnia and West Greenland. Animals, 2022, 12, 669.	2.3	0