

# Christian Mhlfeld

## List of Publications by Citations

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115  
papers

3,625  
citations

28  
h-index

57  
g-index

168  
ext. papers

4,331  
ext. citations

5.1  
avg. IF

5.32  
L-index

#	Paper	IF	Citations
115	Cardioprotection and lifespan extension by the natural polyamine spermidine. <i>Nature Medicine</i> , <b>2016</b> , 22, 1428-1438	50.5	532
114	Quantitative evaluation of cellular uptake and trafficking of plain and polyethylene glycol-coated gold nanoparticles. <i>Small</i> , <b>2010</b> , 6, 1669-78	11	277
113	Cholinergic chemosensory cells in the trachea regulate breathing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 9478-83	11.5	192
112	Interactions of nanoparticles with pulmonary structures and cellular responses. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2008</b> , 294, L817-29	5.8	142
111	Increased airway smooth muscle mass in children with asthma, cystic fibrosis, and non-cystic fibrosis bronchiectasis. <i>American Journal of Respiratory and Critical Care Medicine</i> , <b>2008</b> , 177, 837-43	10.2	127
110	Alteration of the pulmonary surfactant system in full-term infants with hereditary ABCA3 deficiency. <i>American Journal of Respiratory and Critical Care Medicine</i> , <b>2006</b> , 174, 571-80	10.2	124
109	Quantitative microscopy of the lung: a problem-based approach. Part 1: basic principles of lung stereology. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2013</b> , 305, L15-22	5.8	119
108	A review of state-of-the-art stereology for better quantitative 3D morphology in cardiac research. <i>Cardiovascular Pathology</i> , <b>2010</b> , 19, 65-82	3.8	116
107	Visualization and quantitative analysis of nanoparticles in the respiratory tract by transmission electron microscopy. <i>Particle and Fibre Toxicology</i> , <b>2007</b> , 4, 11	8.4	101
106	Quantitative microscopy of the lung: a problem-based approach. Part 2: stereological parameters and study designs in various diseases of the respiratory tract. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2013</b> , 305, L205-21	5.8	94
105	Translocation and cellular entering mechanisms of nanoparticles in the respiratory tract. <i>Swiss Medical Weekly</i> , <b>2008</b> , 138, 387-91	3.1	89
104	Mechanisms of lung aging. <i>Cell and Tissue Research</i> , <b>2017</b> , 367, 469-480	4.2	80
103	Mitochondrial biogenesis and PGC-1 $\alpha$ acetylation by chronic treadmill exercise: differential response in cardiac and skeletal muscle. <i>Basic Research in Cardiology</i> , <b>2011</b> , 106, 1221-34	11.8	67
102	Intracellular imaging of nanoparticles: is it an elemental mistake to believe what you see?. <i>Particle and Fibre Toxicology</i> , <b>2010</b> , 7, 15	8.4	64
101	Truncated recombinant human SP-D attenuates emphysema and type II cell changes in SP-D deficient mice. <i>Respiratory Research</i> , <b>2007</b> , 8, 70	7.3	59
100	Effect of voluntary exercise on number and volume of cardiomyocytes and their mitochondria in the mouse left ventricle. <i>Basic Research in Cardiology</i> , <b>2008</b> , 103, 12-21	11.8	57
99	Re-evaluation of pulmonary titanium dioxide nanoparticle distribution using the "relative deposition index": Evidence for clearance through microvasculature. <i>Particle and Fibre Toxicology</i> , <b>2007</b> , 4, 7	8.4	55

98	Aging exacerbates acute lung injury-induced changes of the air-blood barrier, lung function, and inflammation in the mouse. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2017</b> , 312, L1-L12	5.8	46
97	Dietary spermidine for lowering high blood pressure. <i>Autophagy</i> , <b>2017</b> , 13, 767-769	10.2	44
96	Assessment of cardiac fibrosis: a morphometric method comparison for collagen quantification. <i>Journal of Applied Physiology</i> , <b>2017</b> , 122, 1019-1030	3.7	44
95	Stereology and morphometry of lung tissue. <i>Methods in Molecular Biology</i> , <b>2013</b> , 931, 367-90	1.4	44
94	How common is the lipid body-containing interstitial cell in the mammalian lung?. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2014</b> , 307, L386-94	5.8	41
93	A novel quantitative method for analyzing the distributions of nanoparticles between different tissue and intracellular compartments. <i>Journal of Aerosol Medicine and Pulmonary Drug Delivery</i> , <b>2007</b> , 20, 395-407		41
92	Cancer induces cardiomyocyte remodeling and hypoinnervation in the left ventricle of the mouse heart. <i>PLoS ONE</i> , <b>2011</b> , 6, e20424	3.7	39
91	Nicotinamide for the treatment of heart failure with preserved ejection fraction. <i>Science Translational Medicine</i> , <b>2021</b> , 13,	17.5	38
90	Disruption of the Hepcidin/Ferroportin Regulatory System Causes Pulmonary Iron Overload and Restrictive Lung Disease. <i>EBioMedicine</i> , <b>2017</b> , 20, 230-239	8.8	32
89	A review of recent developments and applications of morphometry/stereology in lung research. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2015</b> , 309, L526-36	5.8	32
88	Surfactant replacement therapy reduces acute lung injury and collapse induration-related lung remodeling in the bleomycin model. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2017</b> , 313, L313-L327	5.8	29
87	Burst-Like Transcription of Mutant and Wildtype -Alleles as Possible Origin of Cell-to-Cell Contractile Imbalance in Hypertrophic Cardiomyopathy. <i>Frontiers in Physiology</i> , <b>2018</b> , 9, 359	4.6	26
86	Assessing particle and fiber toxicology in the respiratory system: the stereology toolbox. <i>Particle and Fibre Toxicology</i> , <b>2015</b> , 12, 35	8.4	26
85	High-pressure freezing and freeze substitution of rat myocardium for immunogold labeling of connexin 43. <i>The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology</i> , <b>2006</b> , 288, 1059-67		25
84	Thrombin stimulates albumin transcytosis in lung microvascular endothelial cells via activation of acid sphingomyelinase. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2016</b> , 310, L720-32	5.8	25
83	Contractile function is preserved in unloaded hearts despite atrophic remodeling. <i>Journal of Thoracic and Cardiovascular Surgery</i> , <b>2009</b> , 137, 742-6	1.5	24
82	Is length an appropriate estimator to characterize pulmonary alveolar capillaries? A critical evaluation in the human lung. <i>Anatomical Record</i> , <b>2010</b> , 293, 1270-5	2.1	24
81	Early-stage heart failure with preserved ejection fraction in the pig: a cardiovascular magnetic resonance study. <i>Journal of Cardiovascular Magnetic Resonance</i> , <b>2016</b> , 18, 63	6.9	23

80	Differential effects of long and short carbon nanotubes on the gas-exchange region of the mouse lung. <i>Nanotoxicology</i> , <b>2012</b> , 6, 867-79	5.3	23
79	Using electron microscopes to look into the lung. <i>Histochemistry and Cell Biology</i> , <b>2016</b> , 146, 695-707	2.4	23
78	Digital 3D reconstructions using histological serial sections of lung tissue including the alveolar capillary network. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2017</b> , 312, L243-L257	5.8	22
77	Expression of fibulin-6 in failing hearts and its role for cardiac fibroblast migration. <i>Cardiovascular Research</i> , <b>2014</b> , 103, 509-20	9.9	22
76	Macroscopic to microscopic scales of particle dosimetry: from source to fate in the body. <i>Air Quality, Atmosphere and Health</i> , <b>2012</b> , 5, 169-187	5.6	22
75	Age-Related Structural and Functional Changes in the Mouse Lung. <i>Frontiers in Physiology</i> , <b>2019</b> , 10, 1466-6	4.6	22
74	Estimation of the number of alveolar capillaries by the Euler number (Euler-Poincaré characteristic). <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2015</b> , 309, L1286-93	5.8	20
73	An unbiased stereological method for efficiently quantifying the innervation of the heart and other organs based on total length estimations. <i>Journal of Applied Physiology</i> , <b>2010</b> , 108, 1402-9	3.7	20
72	Hands-on or no hands-on training in ultrasound imaging: A randomized trial to evaluate learning outcomes and speed of recall of topographic anatomy. <i>Anatomical Sciences Education</i> , <b>2018</b> , 11, 575-591	6.8	20
71	Particles induce apical plasma membrane enlargement in epithelial lung cell line depending on particle surface area dose. <i>Respiratory Research</i> , <b>2009</b> , 10, 22	7.3	19
70	Quantitative morphology of the vascularisation of organs: A stereological approach illustrated using the cardiac circulation. <i>Annals of Anatomy</i> , <b>2014</b> , 196, 12-9	2.9	18
69	Myocardial remodelling in left ventricular atrophy induced by caloric restriction. <i>Journal of Anatomy</i> , <b>2012</b> , 220, 179-85	2.9	18
68	On the Topological Complexity of Human Alveolar Epithelial Type 1 Cells. <i>American Journal of Respiratory and Critical Care Medicine</i> , <b>2019</b> , 199, 1153-1156	10.2	17
67	Experimentally induced intrauterine growth restriction in rabbits leads to differential remodelling of left versus right ventricular myocardial microstructure. <i>Histochemistry and Cell Biology</i> , <b>2017</b> , 148, 557-567	2.4	17
66	Lung preservation in experimental ischemia/reperfusion injury and lung transplantation: a comparison of natural and synthetic surfactants. <i>Journal of Heart and Lung Transplantation</i> , <b>2012</b> , 31, 85-93	5.8	17
65	Exogenous surfactant in ischemia/reperfusion: effects on endogenous surfactant pools. <i>Journal of Heart and Lung Transplantation</i> , <b>2010</b> , 29, 327-34	5.8	17
64	Distribution of intracellular and secreted surfactant during postnatal rat lung development. <i>Pediatric Pulmonology</i> , <b>2007</b> , 42, 548-62	3.5	17
63	Differences in ischemic damage between young and old hearts--Effects of blood cardioplegia. <i>Experimental Gerontology</i> , <b>2015</b> , 67, 3-8	4.5	16

62	Stereological characterization of left ventricular cardiomyocytes, capillaries, and innervation in the nondiabetic, obese mouse. <i>Cardiovascular Pathology</i> , <b>2012</b> , 21, 346-54	3.8	16
61	Exogenous surfactant application in a rat lung ischemia reperfusion injury model: effects on edema formation and alveolar type II cells. <i>Respiratory Research</i> , <b>2008</b> , 9, 5	7.3	16
60	Allometry of the mammalian intracellular pulmonary surfactant system. <i>Journal of Applied Physiology</i> , <b>2010</b> , 109, 1662-9	3.7	15
59	Recent developments in 3-D reconstruction and stereology to study the pulmonary vasculature. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2018</b> , 315, L173-L183	5.8	13
58	Arterial hypertension drives arrhythmia progression via specific structural remodeling in a porcine model of atrial fibrillation. <i>Heart Rhythm</i> , <b>2018</b> , 15, 1328-1336	6.7	13
57	Quantification of muscle pathology in infantile Pompe disease. <i>Neuromuscular Disorders</i> , <b>2017</b> , 27, 141-153	15.3	12
56	Methylprednisolone fails to preserve pulmonary surfactant and blood-air barrier integrity in a porcine cardiopulmonary bypass model. <i>Journal of Surgical Research</i> , <b>2008</b> , 146, 57-65	2.5	12
55	Impact of preservation solution on the extent of blood-air barrier damage and edema formation in experimental lung transplantation. <i>Anatomical Record</i> , <b>2007</b> , 290, 491-500	2.1	12
54	A lung tropic AAV vector improves survival in a mouse model of surfactant B deficiency. <i>Nature Communications</i> , <b>2020</b> , 11, 3929	17.4	12
53	Aging impairs alveolar epithelial type II cell function in acute lung injury. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2020</b> , 319, L755-L769	5.8	12
52	Hypoinnervation is an early event in experimental myocardial remodelling induced by pressure overload. <i>Journal of Anatomy</i> , <b>2013</b> , 222, 634-44	2.9	11
51	The number of cardiac myocytes in the hypertrophic and hypotrophic left ventricle of the obese and calorie-restricted mouse heart. <i>Journal of Anatomy</i> , <b>2014</b> , 225, 539-47	2.9	11
50	Mesenchymal stem cell pretreatment of non-heart-beating-donors in experimental lung transplantation. <i>Journal of Cardiothoracic Surgery</i> , <b>2014</b> , 9, 151	1.6	11
49	Myocardial ischemia tolerance in the newborn rat involving opioid receptors and mitochondrial K <sup>+</sup> channels. <i>The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology</i> , <b>2006</b> , 288, 297-303		11
48	Low testosterone in ApoE/LDL receptor double-knockout mice is associated with rarefied testicular capillaries together with fewer and smaller Leydig cells. <i>Scientific Reports</i> , <b>2018</b> , 8, 5424	4.9	10
47	Assessment of the Alveolar Capillary Network in the Postnatal Mouse Lung in 3D Using Serial Block-Face Scanning Electron Microscopy. <i>Frontiers in Physiology</i> , <b>2019</b> , 10, 1357	4.6	10
46	Estimation of absolute number of alveolar epithelial type 2 cells in mouse lungs: a comparison between stereology and flow cytometry. <i>Journal of Microscopy</i> , <b>2019</b> , 275, 36-50	1.9	9
45	Controlled lung reperfusion to reduce pulmonary ischaemia/reperfusion injury after cardiopulmonary bypass in a porcine model. <i>Interactive Cardiovascular and Thoracic Surgery</i> , <b>2014</b> , 19, 962-70	1.8	9

44	Postnatal development of the bronchiolar club cells of distal airways in the mouse lung: stereological and molecular biological studies. <i>Cell and Tissue Research</i> , <b>2016</b> , 364, 543-557	4.2	8
43	miR-21-KO Alleviates Alveolar Structural Remodeling and Inflammatory Signaling in Acute Lung Injury. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	8
42	Volume-CLEM: a method for correlative light and electron microscopy in three dimensions. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2019</b> , 317, L778-L784	5.8	7
41	Spermidine and Voluntary Activity Exert Differential Effects on Sucrose- Compared with Fat-Induced Systemic Changes in Male Mice. <i>Journal of Nutrition</i> , <b>2019</b> , 149, 451-462	4.1	7
40	Alveolar epithelial type II cells and their microenvironment in the caveolin-1-deficient mouse. <i>Anatomical Record</i> , <b>2012</b> , 295, 196-200	2.1	7
39	Is warm or cold Calafiore blood cardioplegia better? Hemodynamic, metabolic, and electron microscopic differences. <i>Thoracic and Cardiovascular Surgeon</i> , <b>2014</b> , 62, 683-9	1.6	7
38	Systemic, but not cardiomyocyte-specific, deletion of the natriuretic peptide receptor guanylyl cyclase A increases cardiomyocyte number in neonatal mice. <i>Histochemistry and Cell Biology</i> , <b>2015</b> , 144, 365-75	2.4	6
37	A transmural gradient of myocardial remodeling in early-stage heart failure with preserved ejection fraction in the pig. <i>Journal of Anatomy</i> , <b>2020</b> , 236, 531-539	2.9	6
36	Capillary Changes Precede Disordered Alveolarization in a Mouse Model of Bronchopulmonary Dysplasia. <i>American Journal of Respiratory Cell and Molecular Biology</i> , <b>2021</b> , 65, 81-91	5.7	6
35	Cellular and acellular ex vivo lung perfusion preserve functional lung ultrastructure in a large animal model: a stereological study. <i>Respiratory Research</i> , <b>2018</b> , 19, 238	7.3	6
34	Voluntary Activity Modulates Sugar-Induced Elastic Fiber Remodeling in the Alveolar Region of the Mouse Lung. <i>International Journal of Molecular Sciences</i> , <b>2019</b> , 20,	6.3	5
33	Phosphorylation of extrajunctional Cx43 in ischemic-preconditioned rat hearts. <i>Journal of Surgical Research</i> , <b>2010</b> , 162, e1-8	2.5	5
32	Identification of as a candidate gene in hypertrophic cardiomyopathy and Tetralogy of Fallot, and its functional evaluation in the heart. <i>DMM Disease Models and Mechanisms</i> , <b>2020</b> , 13,	4.1	5
31	Effect of irradiation/bone marrow transplantation on alveolar epithelial type II cells is aggravated in surfactant protein D deficient mice. <i>Histochemistry and Cell Biology</i> , <b>2017</b> , 147, 49-61	2.4	4
30	Low-dose adrenomedullin-2/intermedin(8-47) reduces pulmonary ischemia/reperfusion injury. <i>Peptides</i> , <b>2014</b> , 62, 49-54	3.8	4
29	Combination of µCT and light microscopy for generation-specific stereological analysis of pulmonary arterial branches: a proof-of-concept study. <i>Histochemistry and Cell Biology</i> , <b>2021</b> , 155, 227-239 <sup>†</sup>	2.4	4
28	Loss of autophagy protein ATG5 impairs cardiac capacity in mice and humans through diminishing mitochondrial abundance and disrupting Ca <sup>2+</sup> cycling. <i>Cardiovascular Research</i> , <b>2021</b> ,	9.9	4
27	Cardiomyocyte loss is not required for the progression of left ventricular hypertrophy induced by pressure overload in female mice. <i>Journal of Anatomy</i> , <b>2016</b> , 229, 75-81	2.9	4



26	Staining histological lung sections with Sudan Black B or Sudan III for automated identification of alveolar epithelial type II cells. <i>Acta Histochemica</i> , <b>2015</b> , 117, 675-80	2	3
25	Surfactant application in experimental lung transplantation. <i>Journal of Heart and Lung Transplantation</i> , <b>2013</b> , 32, 355-9	5.8	3
24	Allometry of left ventricular myocardial innervation. <i>Journal of Anatomy</i> , <b>2014</b> , 224, 518-26	2.9	3
23	The Three-Dimensional Ultrastructure of the Human Alveolar Epithelium Revealed by Focused Ion Beam Electron Microscopy. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	3
22	High-pressure freezing, chemical fixation and freeze-substitution for immuno-electron microscopy. <i>Methods in Molecular Biology</i> , <b>2010</b> , 611, 87-101	1.4	3
21	The effect of amifostine on lung ischaemia-reperfusion injury in rats. <i>Interactive Cardiovascular and Thoracic Surgery</i> , <b>2016</b> , 23, 273-9	1.8	3
20	Influence of Medication-Induced Preconditioning or Remote Ischemic Preconditioning on the Intrinsic Vascular Extracellular RNA/Ribonuclease System in Cardioprotection. <i>Thoracic and Cardiovascular Surgeon</i> , <b>2019</b> , 67, 494-501	1.6	3
19	Novel cell contact between podocyte microprojections and parietal epithelial cells analyzed by volume electron microscopy. <i>American Journal of Physiology - Renal Physiology</i> , <b>2020</b> , 318, F1246-F1251	4.3	3
18	Dietary Carbohydrates and Fat Induce Distinct Surfactant Alterations in Mice. <i>American Journal of Respiratory Cell and Molecular Biology</i> , <b>2021</b> , 64, 379-390	5.7	3
17	Cardioprotection by spermidine does not depend on structural characteristics of the myocardial microcirculation in aged mice. <i>Experimental Gerontology</i> , <b>2019</b> , 119, 82-88	4.5	2
16	Spermidine supplementation and voluntary activity differentially affect obesity-related structural changes in the mouse lung. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2020</b> , 319, L312-L324	5.8	2
15	Blood cardioplegia for cardiac surgery in acute myocardial infarction: rat experiments with two widely used solutions. <i>Interactive Cardiovascular and Thoracic Surgery</i> , <b>2018</b> , 27, 88-94	1.8	2
14	Effects of Lewis lung carcinoma and B16 melanoma on the innervation of the mouse trachea. <i>Autonomic Neuroscience: Basic and Clinical</i> , <b>2014</b> , 183, 106-10	2.4	2
13	Cancer cachexia alters intracellular surfactant metabolism but not total alveolar surface area. <i>Histochemistry and Cell Biology</i> , <b>2012</b> , 138, 803-13	2.4	2
12	Lipofibroblasts in Structurally Normal, Fibrotic, and Emphysematous Human Lungs. <i>American Journal of Respiratory and Critical Care Medicine</i> , <b>2021</b> , 204, 227-230	10.2	2
11	Air-blood barrier thickening and alterations of alveolar epithelial type 2 cells in mouse lungs with disrupted hepcidin/ferroportin regulatory system. <i>Histochemistry and Cell Biology</i> , <b>2019</b> , 151, 217-228	2.4	2
10	The plate body: 3D ultrastructure of a facultative organelle of alveolar epithelial type II cells involved in SP-A trafficking. <i>Histochemistry and Cell Biology</i> , <b>2021</b> , 155, 261-269	2.4	2
9	Stereological assessment of the blood-air barrier and the surfactant system after mesenchymal stem cell pretreatment in a porcine non-heart-beating donor model for lung transplantation. <i>Journal of Anatomy</i> , <b>2018</b> , 232, 283-295	2.9	2

8	Localization of Exogenous Mesenchymal Stem Cells in a Pig Model of Lung Transplantation. <i>Thoracic and Cardiovascular Surgeon</i> , <b>2018</b> , 66, 63-70	1.6	1
7	Lipid-body containing interstitial cells (lipofibroblasts) in the lungs of various mouse strains. <i>Journal of Anatomy</i> , <b>2017</b> , 231, 970-977	2.9	1
6	Voluntary activity reverses spermidine-induced myocardial fibrosis and lipid accumulation in the obese male mouse. <i>Histochemistry and Cell Biology</i> , <b>2021</b> , 155, 75-88	2.4	1
5	Enabling Manual Intervention for Otherwise Automated Registration of Large Image Series. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 23-33	0.9	1
4	Evaluating registrations of serial sections with distortions of the ground truths. <i>IEEE Access</i> , <b>2021</b> , 1-1	3.5	1
3	Design-Based Stereology of the Lung in the Hyperoxic Preterm Rabbit Model of Bronchopulmonary Dysplasia. <i>Oxidative Medicine and Cellular Longevity</i> , <b>2021</b> , 2021, 4293279	6.7	0
2	Stereology and three-dimensional reconstructions to analyze the pulmonary vasculature. <i>Histochemistry and Cell Biology</i> , <b>2021</b> , 156, 83-93	2.4	0
1	Cardioprotection with esmolol-based cardioplegia for non-infarcted and infarcted rat hearts. <i>European Journal of Cardio-thoracic Surgery</i> , <b>2021</b> , 60, 908-917	3	