

Tilo Winkler

List of Publications by Year in descending order

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Version: 2024-02-01

98
papers

3,097
citations

168829

31
h-index

182931

54
g-index

99
all docs

99
docs citations

99
times ranked

2328
citing authors

#	ARTICLE	IF	CITATIONS
1	Physiological mechanism and spatial distribution of increased alveolar dead space in early ARDS: An experimental study. <i>Acta Anaesthesiologica Scandinavica</i> , 2021, 65, 100-108.	0.7	6
2	PET Imaging Reveals Early Pulmonary Perfusion Abnormalities in HIV Infection Similar to Smoking. <i>Journal of Nuclear Medicine</i> , 2021, 62, 405-411.	2.8	3
3	Smoking and Human Immunodeficiency Virus 1 Infection Promote Retention of CD8 ⁺ T Cells in the Airway Mucosa. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2021, 65, 513-520.	1.4	10
4	Airway remodeling: Shifting the trigger point for exacerbations in asthma. <i>Journal of Allergy and Clinical Immunology</i> , 2021, 148, 710-712.	1.5	14
5	Breathing freely during nitrogen washout. <i>Journal of Applied Physiology</i> , 2020, 129, 1150-1151.	1.2	0
6	Consensus Recommendations on the Use of 18F-FDG PET/CT in Lung Disease. <i>Journal of Nuclear Medicine</i> , 2020, 61, 1701-1707.	2.8	8
7	Inflammatory Activity in Atelectatic and Normally Aerated Regions During Early Acute Lung Injury. <i>Academic Radiology</i> , 2020, 27, 1679-1690.	1.3	1
8	Heterogeneity of Acute Respiratory Distress Syndrome in COVID-19: "Typical" or Not?. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2020, 202, 618-619.	2.5	6
9	Lung Atelectasis Promotes Immune and Barrier Dysfunction as Revealed by Transcriptome Sequencing in Female Sheep. <i>Anesthesiology</i> , 2020, 133, 1060-1076.	1.3	7
10	Endogenous Carbon Monoxide Production and Diffusing Capacity of the Lung for Carbon Monoxide in Sepsis-Induced Acute Respiratory Distress Syndrome. , 2020, 2, e0286.		1
11	Spatial Heterogeneity of Lung Strain and Aeration and Regional Inflammation During Early Lung Injury Assessed with PET/CT. <i>Academic Radiology</i> , 2019, 26, 313-325.	1.3	6
12	Airway Transmural Pressures in an Airway Tree During Bronchoconstriction in Asthma. <i>Journal of Engineering and Science in Medical Diagnostics and Therapy</i> , 2019, 2, 0110051-110056.	0.3	0
13	Perfusion Imaging Distinguishes Exercise Pulmonary Arterial Hypertension at Rest. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2019, 199, 1438-1441.	2.5	9
14	Quantification of the Pulmonary Vascular Response to Inhaled Nitric Oxide Using Noncontrast Computed Tomography Imaging. <i>Circulation: Cardiovascular Imaging</i> , 2019, 12, e008338.	1.3	11
15	A Puzzling Question: How Can Different Phenotypes Possibly Have Indistinguishable Disease Symptoms?. , 2019, , 59-67.		0
16	Reply to Dorrington et al. and to Swenson: "Hypercapnic Pulmonary Vasoconstriction Contributes to Regional Perfusion Distribution: Relevance to Asthma" and "Hypercapnic Pulmonary Vasoconstriction as a Mechanism for Regional Perfusion Redistribution in Asthma". <i>American Journal of Respiratory and Critical Care Medicine</i> , 2018, 197, 684-684.	2.5	1
17	Elevation in lung volume and preventing catastrophic airway closure in asthmatics during bronchoconstriction. <i>PLoS ONE</i> , 2018, 13, e0208337.	1.1	7
18	Deterioration of Regional Lung Strain and Inflammation during Early Lung Injury. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2018, 198, 891-902.	2.5	55

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19	A phase I trial of low-dose inhaled carbon monoxide in sepsis-induced ARDS. <i>JCI Insight</i> , 2018, 3, .	2.3	78
20	EFEITOS DA FILTRAGEM NAS RELAÇÕES VENTILAÇÃO-PERFUSÃO PULMONARES COM TOMOGRAFIA POR EMISSÃO DE PÁ“SITRONS. , 2018, , .		0
21	The authors reply. <i>Critical Care Medicine</i> , 2017, 45, e328-e329.	0.4	3
22	Hypoxic Pulmonary Vasoconstriction Does Not Explain All Regional Perfusion Redistribution in Asthma. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2017, 196, 834-844.	2.5	26
23	Comparative Effects of Volutrauma and Atelectrauma on Lung Inflammation in Experimental Acute Respiratory Distress Syndrome. <i>Critical Care Medicine</i> , 2016, 44, e854-e865.	0.4	87
24	Regional tidal lung strain in mechanically ventilated normal lungs. <i>Journal of Applied Physiology</i> , 2016, 121, 1335-1347.	1.2	39
25	Lung Metabolic Activation as an Early Biomarker of Acute Respiratory Distress Syndrome and Local Gene Expression Heterogeneity. <i>Anesthesiology</i> , 2016, 125, 992-1004.	1.3	24
26	Using optical coherence tomography (OCT) imaging in the evaluation of airway dynamics (Conference) Tj ETQq0 0 0 rgBT /Oylock 10		
27	Regional Ventilation and Aerosol Deposition with Helium-Oxygen in Bronchoconstricted Asthmatic Lungs. <i>Journal of Aerosol Medicine and Pulmonary Drug Delivery</i> , 2016, 29, 260-272.	0.7	11
28	A method for mapping regional oxygen and CO2 transfer in the lung. <i>Respiratory Physiology and Neurobiology</i> , 2016, 222, 29-47.	0.7	6
29	What Causes Uneven Aerosol Deposition in the Bronchoconstricted Lung? A Quantitative Imaging Study. <i>Journal of Aerosol Medicine and Pulmonary Drug Delivery</i> , 2016, 29, 57-75.	0.7	19
30	Estimation of Noise-Free Variance to Measure Heterogeneity. <i>PLoS ONE</i> , 2015, 10, e0123417.	1.1	6
31	Modeling of Tracer Transport Delays for Improved Quantification of Regional Pulmonary 18F-FDG Kinetics, Vascular Transit Times, and Perfusion. <i>Annals of Biomedical Engineering</i> , 2015, 43, 2722-2734.	1.3	7
32	Analysis of Three-Dimensional Aerosol Deposition in Pharmacologically Relevant Terms: Beyond Black or White ROIs. <i>Journal of Aerosol Medicine and Pulmonary Drug Delivery</i> , 2015, 28, 116-129.	0.7	16
33	Effects of inhaled CO administration on acute lung injury in baboons with pneumococcal pneumonia. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2015, 309, L834-L846.	1.3	31
34	Mathematical modeling of ventilation defects in asthma. <i>Drug Discovery Today: Disease Models</i> , 2015, 15, 3-8.	1.2	11
35	Allergic Non-Asthmatic Adults Have Regional Pulmonary Responses to Segmental Allergen Challenge. <i>PLoS ONE</i> , 2015, 10, e0143976.	1.1	1
36	8 Modellierung und Simulation: Methodik und Applikation. , 2014, , 169-206.		0

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37	Deep Inspiration and the Emergence of Ventilation Defects during Bronchoconstriction: A Computational Study. PLoS ONE, 2014, 9, e112443.	1.1	11
38	¹⁸ F-FDG Kinetics Parameters Depend on the Mechanism of Injury in Early Experimental Acute Respiratory Distress Syndrome. Journal of Nuclear Medicine, 2014, 55, 1871-1877.	2.8	33
39	Pendelluft in the bronchial tree. Journal of Applied Physiology, 2014, 117, 979-988.	1.2	35
40	Effects of airway tree asymmetry on the emergence and spatial persistence of ventilation defects. Journal of Applied Physiology, 2014, 117, 353-362.	1.2	35
41	Lung [18F]fluorodeoxyglucose Uptake and Ventilation-Perfusion Mismatch in the Early Stage of Experimental Acute Smoke Inhalation. Anesthesiology, 2014, 120, 683-693.	1.3	12
42	Effect of Local Tidal Lung Strain on Inflammation in Normal and Lipopolysaccharide-Exposed Sheep*. Critical Care Medicine, 2014, 42, e491-e500.	0.4	90
43	Pulmonary Functional Imaging with Positron Emission Tomography. , 2014, , 283-308.		0
44	Effects of ventilation strategy on distribution of lung inflammatory cell activity. Critical Care, 2013, 17, R175.	2.5	33
45	Micro-Autoradiographic Assessment of Cell Types Contributing to 2-Deoxy-2-[18F]Fluoro-d-Glucose Uptake During Ventilator-Induced and Endotoxemic Lung Injury. Molecular Imaging and Biology, 2013, 15, 19-27.	1.3	36
46	Lung Physiology and Aerosol Deposition Imaged with Positron Emission Tomography. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2013, 26, 1-8.	0.7	50
47	Regional Lung Derecruitment and Inflammation during 16 Hours of Mechanical Ventilation in Supine Healthy Sheep. Anesthesiology, 2013, 119, 156-165.	1.3	19
48	Peripheral resistance: a link between global airflow obstruction and regional ventilation distribution. Journal of Applied Physiology, 2013, 114, 504-514.	1.2	33
49	The effect of omalizumab on ventilation and perfusion in adults with allergic asthma. American Journal of Nuclear Medicine and Molecular Imaging, 2013, 3, 350-60.	1.0	4
50	Are all airways equal?. Journal of Applied Physiology, 2012, 112, 1431-1432.	1.2	5
51	Reply: 18F-FDG Uptake to Assess Eosinophilic Inflammation in Asthma: Would SUV at Late Imaging Be Relevant?. Journal of Nuclear Medicine, 2012, 53, 1328.2-1329.	2.8	1
52	Functional effect of longitudinal heterogeneity in constricted airways before and after lung expansion. Journal of Applied Physiology, 2012, 112, 237-245.	1.2	10
53	Effect of regional lung inflation on ventilation heterogeneity at different length scales during mechanical ventilation of normal sheep lungs. Journal of Applied Physiology, 2012, 113, 947-957.	1.2	37
54	Modeling 18F-FDG Kinetics during Acute Lung Injury: Experimental Data and Estimation Errors. PLoS ONE, 2012, 7, e47588.	1.1	13

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55	Ventilation Defect Formation in Healthy and Asthma Subjects Is Determined by Lung Inflation. PLoS ONE, 2012, 7, e53216.	1.1	24
56	The Role Of Regional Aeration And Hypoxic Vasoconstriction In The Distribution Of Pulmonary Perfusion Of Supine Healthy Sheep. , 2011, , .		0
57	Fluorodeoxyglucose Uptake Rate Is A Biomarker Of Eosinophilic Inflammation And Airway Response In Asthma. , 2011, , .		0
58	Ventilation Heterogeneity Is Reduced With Application Of Positive End-Expiratory During Mechanical Ventilation In Healthy Supine Sheep. , 2011, , .		0
59	Synergistic Effects Of Airway Wall Thickening And Smooth Muscle Stimulation In Asthma. , 2011, , .		1
60	Emergent Structure-Function Relations in Emphysema and Asthma. Critical Reviews in Biomedical Engineering, 2011, 39, 263-280.	0.5	35
61	Effects Of Pathway Conductance, Vertical Location And Methacholine Inhalation On The Regional Distribution Of Ventilation In Humans With And Without Asthma. , 2011, , .		0
62	¹⁸ F-FDG Kinetics Parameters Correlate With Regional Lung Neutrophil Counts And Chemokines During Early Endotoxemia. , 2011, , .		0
63	Autoradiographic Assessment Of Cell Types Contributing To ¹⁸ F-Fluorodeoxyglucose Uptake During Ventilator-Induced And Endotoxemic Lung Injury. , 2011, , .		0
64	Effects Of Persistent Central Airway Dilation On Airway Resistance And Ventilation Defects In Asthma. , 2011, , .		1
65	Self-organized patterns of airway narrowing. Journal of Applied Physiology, 2011, 110, 1482-1486.	1.2	24
66	Effects of surfactant depletion on regional pulmonary metabolic activity during mechanical ventilation. Journal of Applied Physiology, 2011, 111, 1249-1258.	1.2	41
67	Perfusion Redistribution During Bronchoconstriction In Asthma Is Due In Part To Hypoxic Pulmonary Vasoconstriction. , 2011, , .		0
68	Comparison Of Computed Tomography Techniques To Measure Regional Lung Strain. , 2011, , .		0
69	¹⁸ F-FDG Uptake Rate Is a Biomarker of Eosinophilic Inflammation and Airway Response in Asthma. Journal of Nuclear Medicine, 2011, 52, 1713-1720.	2.8	56
70	Dynamics Of Airway Heterogeneity In Paradoxical Bronchoconstriction After A Deep Breath. , 2010, , .		0
71	Mild Endotoxemia during Mechanical Ventilation Produces Spatially Heterogeneous Pulmonary Neutrophilic Inflammation in Sheep. Anesthesiology, 2010, 112, 658-669.	1.3	64
72	Effect Of Maximal Alveolar Recruitment On Regional Lung Inflammation During Mild Endotoxemic Acute Lung Injury (ALI) In Sheep. , 2010, , .		0

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73	Effects Of Random Variability In Airway Wall Thickness On Paradoxical Bronchoconstriction. , 2010, , .		0
74	18F-FDG Uptake And Regional Derecruitment Of The Heterogeneously Inflated Supine Healthy Lung During 16 H Of Mechanical Ventilation. , 2010, , .		0
75	Influence Of Alveolar Flooding On 18F-FDG Kinetics During Acute Lung Injury. , 2010, , .		0
76	Effects Of Degree Of Constriction And Wall Thickness On The Distensibility Of Constricted Airways. , 2010, , .		0
77	Spatial Heterogeneity of Lung Perfusion Assessed with ¹³ N PET as a Vascular Biomarker in Chronic Obstructive Pulmonary Disease. Journal of Nuclear Medicine, 2010, 51, 57-65.	2.8	55
78	Measurement of Regional Specific Lung Volume Change Using Respiratory-Gated PET of Inhaled ¹³ N-Nitrogen. Journal of Nuclear Medicine, 2010, 51, 646-653.	2.8	47
79	Dynamics of tidal volume and ventilation heterogeneity under pressure-controlled ventilation during bronchoconstriction: a simulation study. Journal of Applied Physiology, 2010, 109, 1211-1218.	1.2	15
80	The prone position results in smaller ventilation defects during bronchoconstriction in asthma. Journal of Applied Physiology, 2009, 107, 266-274.	1.2	33
81	Modeling Pulmonary Kinetics of 2-Deoxy-2-[¹⁸ F]fluoro-d-glucose During Acute Lung Injury. Academic Radiology, 2008, 15, 763-775.	1.3	51
82	Relation between Shunt, Aeration, and Perfusion in Experimental Acute Lung Injury. American Journal of Respiratory and Critical Care Medicine, 2008, 177, 292-300.	2.5	71
83	Image-Derived Input Function for Assessment of 18F-FDG Uptake by the Inflamed Lung. Journal of Nuclear Medicine, 2007, 48, 1889-1896.	2.8	46
84	Relationship between airway narrowing, patchy ventilation and lung mechanics in asthmatics. European Respiratory Journal, 2007, 29, 1174-1181.	3.1	77
85	In silico modeling of airway mechanics. Drug Discovery Today: Disease Models, 2007, 4, 125-129.	1.2	4
86	Complex airway behavior and paradoxical responses to bronchoprovocation. Journal of Applied Physiology, 2007, 103, 655-663.	1.2	78
87	Regional Gas Exchange and Cellular Metabolic Activity in Ventilator-induced Lung Injury. Anesthesiology, 2007, 106, 723-735.	1.3	112
88	PET imaging of regional 18F-FDG uptake and lung function after cigarette smoke inhalation. Journal of Nuclear Medicine, 2007, 48, 413-9.	2.8	25
89	Regional Pulmonary Perfusion, Inflation, and Ventilation Defects in Bronchoconstricted Patients with Asthma. American Journal of Respiratory and Critical Care Medicine, 2006, 174, 245-253.	2.5	108
90	Self-organized patchiness in asthma as a prelude to catastrophic shifts. Nature, 2005, 434, 777-782.	13.7	504

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91	Effect of Prone Position on Regional Shunt, Aeration, and Perfusion in Experimental Acute Lung Injury. American Journal of Respiratory and Critical Care Medicine, 2005, 172, 480-487.	2.5	186
92	Mechanism by Which a Sustained Inflation Can Worsen Oxygenation in Acute Lung Injury. Anesthesiology, 2004, 100, 323-330.	1.3	102
93	Performance of the partial CO2 rebreathing technique under different hemodynamic and ventilation/perfusion matching conditions. Critical Care Medicine, 2003, 31, 543-551.	0.4	27
94	Modeling kinetics of infused ¹³ NN-saline in acute lung injury. Journal of Applied Physiology, 2003, 95, 2471-2484.	1.2	29
95	Quantification of regional ventilation-perfusion ratios with PET. Journal of Nuclear Medicine, 2003, 44, 1982-91.	2.8	87
96	Topographical distribution of pulmonary perfusion and ventilation, assessed by PET in supine and prone humans. Journal of Applied Physiology, 2002, 93, 1841-1851.	1.2	199
97	Evaluation of a new device for noninvasive measurement of nonshunted pulmonary capillary blood flow in patients with acute lung injury. Intensive Care Medicine, 2002, 28, 318-323.	3.9	26
98	RESIMO - Ein respiratorisches Simulationsmodell. Biomedizinische Technik, 1993, 38, 373-374.	0.9	1