

# Merryn H Tawhai

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3933383/publications.pdf>

Version: 2024-02-01

173  
papers

4,926  
citations

87888

38  
h-index

110387

64  
g-index

187  
all docs

187  
docs citations

187  
times ranked

3168  
citing authors

#	ARTICLE	IF	CITATIONS
1	Prediction and estimation of pulmonary response and elastance evolution for volume-controlled and pressure-controlled ventilation. <i>Biomedical Signal Processing and Control</i> , 2022, 72, 103367.	5.7	14
2	Over-distension prediction via hysteresis loop analysis and patient-specific basis functions in a virtual patient model. <i>Computers in Biology and Medicine</i> , 2022, 141, 105022.	7.0	13
3	Reconstructing asynchrony for mechanical ventilation using a hysteresis loop virtual patient model. <i>BioMedical Engineering OnLine</i> , 2022, 21, 16.	2.7	8
4	Simulating Multi-Scale Pulmonary Vascular Function by Coupling Computational Fluid Dynamics With an Anatomic Network Model. <i>Frontiers in Network Physiology</i> , 2022, 2, .	1.8	3
5	Integrative Computational Models of Lung Structure&Function Interactions. , 2021, 11, 1501-1530.		2
6	Virtual patients for mechanical ventilation in the intensive care unit. <i>Computer Methods and Programs in Biomedicine</i> , 2021, 199, 105912.	4.7	43
7	Mobile Pulmonary Rehabilitation: Feasibility of Delivery by a Mobile Phone-Based Program. <i>Frontiers in Computer Science</i> , 2021, 3, .	2.8	3
8	A computational model of contributors to pulmonary hypertensive disease: impacts of whole lung and focal disease distributions. <i>Pulmonary Circulation</i> , 2021, 11, 1-15.	1.7	4
9	Minimal Lung Mechanics Basis-functions for a Mechanical Ventilation Virtual Patient. <i>IFAC-PapersOnLine</i> , 2021, 54, 127-132.	0.9	3
10	Bridging the gap between respiratory research and health literacy: an interactive web-based platform. <i>BMJ Simulation and Technology Enhanced Learning</i> , 2021, 7, 163-166.	0.7	1
11	Authors&™ Response to Drs. Ece Salihoglu and Ziya Salihoglu&™s Letter to the Editor. <i>Annals of Biomedical Engineering</i> , 2020, 48, 2-3.	2.5	0
12	Inspiratory respiratory mechanics estimation by using expiratory data for reverse-triggered breathing cycles. <i>Computer Methods and Programs in Biomedicine</i> , 2020, 186, 105184.	4.7	7
13	High-Frequency Oscillatory Ventilation and Ventilator-Induced Lung Injury. <i>Critical Care Medicine</i> , 2020, 48, e66-e73.	0.9	16
14	Prediction of lung mechanics throughout recruitment maneuvers in pressure-controlled ventilation. <i>Computer Methods and Programs in Biomedicine</i> , 2020, 197, 105696.	4.7	22
15	Lung and fissure shape is associated with age in healthy never-smoking adults aged 20&quot;90 years. <i>Scientific Reports</i> , 2020, 10, 16135.	3.3	11
16	An integrated 1D breathing lung simulation with relative hysteresis of airway structure and regional pressure for healthy and asthmatic human lungs. <i>Journal of Applied Physiology</i> , 2020, 129, 732-747.	2.5	10
17	Olfactory Targeting of Microparticles Through Inhalation and Bi-directional Airflow: Effect of Particle Size and Nasal Anatomy. <i>Journal of Aerosol Medicine and Pulmonary Drug Delivery</i> , 2020, 33, 258-270.	1.4	21
18	Strain, strain rate, and mechanical power: An optimization comparison for oscillatory ventilation. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2019, 35, e3238.	2.1	12

#	ARTICLE	IF	CITATIONS
19	Ventilation/Perfusion Matching: Of Myths, Mice, and Men. <i>Physiology</i> , 2019, 34, 419-429.	3.1	9
20	Optimizing human pulmonary perfusion measurement using an in silico model of arterial spin labeling magnetic resonance imaging. <i>Physiological Reports</i> , 2019, 7, e14077.	1.7	2
21	Pulmonary Vascular Dynamics. , 2019, 9, 1081-1100.		5
22	Optimising mechanical ventilation through model-based methods and automation. <i>Annual Reviews in Control</i> , 2019, 48, 369-382.	7.9	47
23	1D network simulations for evaluating regional flow and pressure distributions in healthy and asthmatic human lungs. <i>Journal of Applied Physiology</i> , 2019, 127, 122-133.	2.5	25
24	Computational Modeling of Primary Blast Lung Injury: Implications for Ventilator Management. <i>Military Medicine</i> , 2019, 184, 273-281.	0.8	10
25	Predictive Virtual Patient Modelling of Mechanical Ventilation: Impact of Recruitment Function. <i>Annals of Biomedical Engineering</i> , 2019, 47, 1626-1641.	2.5	41
26	Wave reflection in an anatomical model of the pulmonary circulation in local and global hypertensive disease. , 2019, 2019, 4973-4976.		3
27	The Lung Physiome and virtual patient models: From morphometry to clinical translation. <i>Morphologie</i> , 2019, 103, 131-138.	0.9	11
28	Do Pulmonary Cavity Shapes Influence Lung Function?. <i>Journal of Biomechanical Engineering</i> , 2019, 141, .	1.3	5
29	Understanding End-User Perspectives of Mobile Pulmonary Rehabilitation (mPR): Cross-Sectional Survey and Interviews. <i>JMIR Formative Research</i> , 2019, 3, e15466.	1.4	12
30	Parenchymal strain heterogeneity during oscillatory ventilation: why two frequencies are better than one. <i>Journal of Applied Physiology</i> , 2018, 124, 653-663.	2.5	17
31	Gravity outweighs the contribution of structure to passive ventilation-perfusion matching in the supine adult human lung. <i>Journal of Applied Physiology</i> , 2018, 124, 23-33.	2.5	19
32	Estimation of Inspiratory Respiratory Elastance Using Expiratory Data. <i>IFAC-PapersOnLine</i> , 2018, 51, 204-208.	0.9	2
33	TEMPORAL AND SPATIAL HETEROGENEITY IN PULMONARY PERFUSION: A MATHEMATICAL MODEL TO PREDICT INTERACTIONS BETWEEN MACRO- AND MICRO-VESSELS IN HEALTH AND DISEASE. <i>ANZIAM Journal</i> , 2018, 59, 562-580.	0.2	13
34	Metrics of lung tissue heterogeneity depend on BMI but not age. <i>Journal of Applied Physiology</i> , 2018, 125, 328-339.	2.5	7
35	In silico modeling of oxygen-enhanced MRI of specific ventilation. <i>Physiological Reports</i> , 2018, 6, e13659.	1.7	8
36	Next-generation, personalised, model-based critical care medicine: a state-of-the art review of in silico virtual patient models, methods, and cohorts, and how to validation them. <i>BioMedical Engineering OnLine</i> , 2018, 17, 24.	2.7	143

#	ARTICLE	IF	CITATIONS
37	Association of Placental Jets and Mega-Jets With Reduced Villous Density. <i>Journal of Biomechanical Engineering</i> , 2017, 139, .	1.3	26
38	Evidence for age-dependent air-space enlargement contributing to loss of lung tissue elastic recoil pressure and increased shear modulus in older age. <i>Journal of Applied Physiology</i> , 2017, 123, 79-87.	2.5	19
39	Lobe based image reconstruction in Electrical Impedance Tomography. <i>Medical Physics</i> , 2017, 44, 426-436.	3.0	9
40	The impact of endoscopic sinus surgery on paranasal physiology in simulated sinus cavities. <i>International Forum of Allergy and Rhinology</i> , 2017, 7, 248-255.	2.8	12
41	Automatic construction of subject-specific human airway geometry including trifurcations based on a CT-segmented airway skeleton and surface. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017, 16, 583-596.	2.8	28
42	Airflow in the Human Nasal Passage and Sinuses of Chronic Rhinosinusitis Subjects. <i>PLoS ONE</i> , 2016, 11, e0156379.	2.5	24
43	Regional gas transport in the heterogeneous lung during oscillatory ventilation. <i>Journal of Applied Physiology</i> , 2016, 121, 1306-1318.	2.5	21
44	Simulation of Forced Expiration in a Biophysical Model, With Homogeneous and Clustered Bronchoconstriction. <i>Journal of Biomechanical Engineering</i> , 2016, 138, 061008.	1.3	9
45	A multiscale model of placental oxygen exchange: The effect of villous tree structure on exchange efficiency. <i>Journal of Theoretical Biology</i> , 2016, 408, 1-12.	1.7	28
46	Computational models of lung diseases. <i>Drug Discovery Today: Disease Models</i> , 2015, 15, 1-2.	1.2	2
47	Modeling the pharyngeal pressure during adult nasal high flow therapy. <i>Respiratory Physiology and Neurobiology</i> , 2015, 219, 51-57.	1.6	23
48	Quantifying Normal Geometric Variation in Human Pulmonary Lobar Geometry From High Resolution Computed Tomography. <i>Journal of Biomechanical Engineering</i> , 2015, 137, 051010.	1.3	10
49	A Numerical Study of Water Loss Rate Distributions in MDCT-Based Human Airway Models. <i>Annals of Biomedical Engineering</i> , 2015, 43, 2708-2721.	2.5	15
50	Comparison of generic and subject-specific models for simulation of pulmonary perfusion and forced expiration. <i>Interface Focus</i> , 2015, 5, 20140090.	3.0	18
51	Multiscale modelling in biomechanics. <i>Interface Focus</i> , 2015, 5, 20150003.	3.0	5
52	Breathing Easier: Model-based decision support for respiratory care looks beyond tomorrow.. <i>IEEE Pulse</i> , 2015, 6, 10-15.	0.3	1
53	Modelling the relationship between maternal blood flow and villus tree density in normal human pregnancy. <i>Placenta</i> , 2015, 36, A13-A14.	1.5	0
54	Phenotype, endotype and patient-specific computational modelling for optimal treatment design in asthma. <i>Drug Discovery Today: Disease Models</i> , 2015, 15, 23-27.	1.2	2

#	ARTICLE	IF	CITATIONS
55	Computational models for patient-specific analysis of pulmonary vascular disease. <i>Drug Discovery Today: Disease Models</i> , 2015, 15, 29-36.	1.2	1
56	The effect of gas exchange on multiple-breath nitrogen washout measures of ventilation inhomogeneity in the mouse. <i>Journal of Applied Physiology</i> , 2014, 117, 1049-1054.	2.5	7
57	A Numerical Study of Heat and Water Vapor Transfer in MDCT-Based Human Airway Models. <i>Annals of Biomedical Engineering</i> , 2014, 42, 2117-2131.	2.5	49
58	Dynamic blood flow and wall shear stress in pulmonary hypertensive disease. , 2014, 2014, 5671-4.		14
59	Supine to upright lung mechanics: Do changes in lung shape influence lung tissue deformation?. , 2014, 2014, 832-5.		4
60	Hypoxic Pulmonary Vasoconstriction as a Contributor to Response in Acute Pulmonary Embolism. <i>Annals of Biomedical Engineering</i> , 2014, 42, 1631-1643.	2.5	25
61	Lack of functional information explains the poor performance of $\hat{c}$ clot load scores <sup>TM</sup> at predicting outcome in acute pulmonary embolism. <i>Respiratory Physiology and Neurobiology</i> , 2014, 190, 1-13.	1.6	24
62	A multiscale MDCT image-based breathing lung model with time-varying regional ventilation. <i>Journal of Computational Physics</i> , 2013, 244, 168-192.	3.8	85
63	Multiscale image-based modeling and simulation of gas flow and particle transport in the human lungs. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2013, 5, 643-655.	6.6	66
64	Blood Flow in Capillaries of the Human Lung. <i>Journal of Biomechanical Engineering</i> , 2013, 135, 101006-11.	1.3	9
65	Integrative approaches for modeling regulation and function of the respiratory system. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2013, 5, 687-699.	6.6	17
66	Optimal Graph Search Based Segmentation of Airway Tree Double Surfaces Across Bifurcations. <i>IEEE Transactions on Medical Imaging</i> , 2013, 32, 493-510.	8.9	30
67	Porcine pulmonary artery distension during static pressure inflation. , 2013, , .		0
68	Multiscale imaging and registration-driven model for pulmonary acinar mechanics in the mouse. <i>Journal of Applied Physiology</i> , 2013, 114, 971-978.	2.5	35
69	Using CT imaging to quantify differences between young and elderly healthy lungs. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
70	From imaging to functional outcome in pulmonary embolism. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
71	Registration-based assessment of regional lung function via volumetric CT images of normal subjects vs. severe asthmatics. <i>Journal of Applied Physiology</i> , 2013, 115, 730-742.	2.5	77
72	MDCT-based quantification of porcine pulmonary arterial morphometry and self-similarity of arterial branching geometry. <i>Journal of Applied Physiology</i> , 2013, 114, 1191-1201.	2.5	11

#	ARTICLE	IF	CITATIONS
73	<i>Physiology's</i> Impact: Discovering Life. Physiology, 2013, 28, 212-213.	3.1	0
74	Translational Research: Multi-Scale Models of the Pulmonary Circulation in Health and Disease. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2013, , 259-286.	1.0	0
75	A Multi-Scale Approach to Airway Hyperresponsiveness: From Molecule to Organ. Frontiers in Physiology, 2012, 3, 191.	2.8	39
76	Spatial redistribution of perfusion and gas exchange in patient-specific models of pulmonary embolism. , 2012, , .		6
77	Quantifying tissue heterogeneity using quadtree decomposition. , 2012, 2012, 4079-82.		3
78	An in-vivo computed tomography approach for quantifying porcine pulmonary arterial morphometry. , 2012, 2012, 5400-3.		0
79	What can imaging tell us about physiology? Lung growth and regional mechanical strain. Journal of Applied Physiology, 2012, 113, 937-946.	2.5	9
80	Towards A Complete Description Of Human Airway Smooth Muscle. , 2012, , .		0
81	Morphometry And Advective Mixing Results In A Murine Lung Acinar Model. , 2012, , .		0
82	MDCT-Based 3D-1D Coupled Airflow Simulation In The Entire Conducting Airway Of Breathing Human Lung. , 2012, , .		0
83	Effect Of Carrier Gas Properties On Aerosol Distribution In A CT-Based Human Airway Numerical Model. , 2012, , .		0
84	Arteries dominate volume changes during brief functional hyperemia: Evidence from mathematical modelling. NeuroImage, 2012, 62, 482-492.	4.2	19
85	Ventilatory and cardiac responses to pulmonary embolism: Consequences for gas exchange and blood pressure. , 2012, 2012, 6657-60.		0
86	Relating indices of inert gas washout to localised bronchoconstriction. Respiratory Physiology and Neurobiology, 2012, 183, 224-233.	1.6	22
87	The Importance of Synergy between Deep Inspirations and Fluidization in Reversing Airway Closure. PLoS ONE, 2012, 7, e48552.	2.5	7
88	Periciliary Liquid Depth Prediction In Multiscale CT Based Dynamic Human Lung. , 2012, , .		0
89	Subject Specific Modeling Of Perfusion Defects In Pulmonary Embolism Patients Stratified According To Symptoms. , 2012, , .		0
90	Prediction Of Aerosol Transport And Deposition In The Human Airway Tree. , 2012, , .		0

#	ARTICLE	IF	CITATIONS
91	On The Conditions For Clustered Ventilation Defects. , 2012, , .		0
92	Quantifying The Magnitude And Spatial Extent Of The Parenchymal Tethering Force In A Quasi-Static Finite Element Simulation Of A Human Lung Slice Under Agonist Challenge. , 2012, , .		0
93	Further Evidence For The Role Of Hypoxic Pulmonary Vasoconstriction During Bronchoconstriction. , 2012, , .		0
94	A Numerical Study Of Airway Resistance And Particle Deposition In Normal And Asthmatic Lungs. , 2012, , .		0
95	Effect of Carrier Gas Properties on Aerosol Distribution in a CT-based Human Airway Numerical Model. <i>Annals of Biomedical Engineering</i> , 2012, 40, 1495-1507.	2.5	54
96	Quantifying parenchymal tethering in a finite element simulation of a human lung slice under bronchoconstriction. <i>Respiratory Physiology and Neurobiology</i> , 2012, 183, 85-90.	1.6	10
97	A computational model of the topographic distribution of ventilation in healthy human lungs. <i>Journal of Theoretical Biology</i> , 2012, 300, 222-231.	1.7	81
98	Dual Energy CT Perfused Blood Volume Is A Surrogate For Dynamic Perfusion Measured By MDCT. , 2011, , .		0
99	Regional Deposition of Particles in an Image-Based Airway Model: Large-Eddy Simulation and Left-Right Lung Ventilation Asymmetry. <i>Aerosol Science and Technology</i> , 2011, 45, 11-25.	3.1	141
100	Mechanisms Of Differences In Ventilation Distribution In The Upright, Supine, And Prone Postures. , 2011, , .		1
101	Topographical Distribution Of Oxygen Partial Pressure In The Upright Human Lungs. , 2011, , .		1
102	Ventilation And Perfusion Matching In The Adult And The Neonate. , 2011, , .		0
103	Predicting Disease Severity During Pulmonary Embolism. , 2011, , .		0
104	Deep Inspirations And Bronchial Challenge In A Predictive Multiscale Model Of The Human Lung. , 2011, , .		0
105	A Structure-Based Model Analysis Of Ventilation And Contrast Gas Distribution In The Ovine Lung. , 2011, , .		1
106	Airway Gas Flow. , 2011, 1, 1135-1157.		22
107	The interdependent contributions of gravitational and structural features to perfusion distribution in a multiscale model of the pulmonary circulation. <i>Journal of Applied Physiology</i> , 2011, 110, 943-955.	2.5	63
108	Evidence for minimal oxygen heterogeneity in the healthy human pulmonary acinus. <i>Journal of Applied Physiology</i> , 2011, 110, 528-537.	2.5	45

#	ARTICLE	IF	CITATIONS
109	Multi-scale lung modeling. <i>Journal of Applied Physiology</i> , 2011, 110, 1466-1472.	2.5	54
110	The impact of micro-embolism size on haemodynamic changes in the pulmonary micro-circulation. <i>Respiratory Physiology and Neurobiology</i> , 2011, 175, 365-374.	1.6	17
111	Computational Models of the Pulmonary Circulation: Insights and the Move towards Clinically Directed Studies. <i>Pulmonary Circulation</i> , 2011, 1, 224-238.	1.7	37
112	Blood Flow Redistribution and Ventilation-Perfusion Mismatch During Embolic Pulmonary Arterial Occlusion. <i>Pulmonary Circulation</i> , 2011, 1, 365-376.	1.7	67
113	Pulmonary embolism: predicting disease severity. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 4255-4277.	3.4	24
114	Steady streaming: A key mixing mechanism in low-Reynolds-number acinar flows. <i>Physics of Fluids</i> , 2011, 23, 41902.	4.0	33
115	Computational Modeling of Airway and Pulmonary Vascular Structure and Function: Development of a "Lung Physiome". <i>Critical Reviews in Biomedical Engineering</i> , 2011, 39, 319-336.	0.9	19
116	Modeling of the Pulmonary Vasculature. , 2011, , 91-103.		0
117	Predicting The Influence Of Hypoxic Pulmonary Vasoconstriction On The Distribution Of Pulmonary Blood Flow. , 2011, , .		1
118	Lack Of Left And Right Lung Difference In Mean Tissue Density And Density Gradient At FRC Suggests Minimal Compression Of The Lung By The Heart In Healthy Human Subjects In The Supine Posture. , 2010, , .		0
119	Regional Heterogeneity In Asthmatic Airway Hyper-responsiveness. , 2010, , .		0
120	The Role of Airway Epithelium in Replenishment of Evaporated Airway Surface Liquid From the Human Conducting Airways. <i>Annals of Biomedical Engineering</i> , 2010, 38, 3535-3549.	2.5	20
121	Airway Wall Stiffening Increases Peak Wall Shear Stress: A Fluid-Structure Interaction Study in Rigid and Compliant Airways. <i>Annals of Biomedical Engineering</i> , 2010, 38, 1836-1853.	2.5	73
122	A simplified model of airway narrowing due to bronchial mucosal folding. <i>Respiratory Physiology and Neurobiology</i> , 2010, 171, 144-150.	1.6	5
123	Coupling of lung tissue tethering force to fluid dynamics in the pulmonary circulation. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2010, 26, 862-875.	2.1	7
124	Image-based modeling of lung structure and function. <i>Journal of Magnetic Resonance Imaging</i> , 2010, 32, 1421-1431.	3.4	39
125	Simulation of pulmonary air flow with a subject-specific boundary condition. <i>Journal of Biomechanics</i> , 2010, 43, 2159-2163.	2.1	131
126	The effect of intracellular calcium oscillations on fluid secretion in airway epithelium. <i>Journal of Theoretical Biology</i> , 2010, 265, 270-277.	1.7	2

#	ARTICLE	IF	CITATIONS
127	A multiscale, spatially distributed model of asthmatic airway hyper-responsiveness. Journal of Theoretical Biology, 2010, 266, 614-624.	1.7	70
128	Mathematical modelling of calcium wave propagation in mammalian airway epithelium: evidence for regenerative ATP release. Experimental Physiology, 2010, 95, 232-249.	2.0	24
129	Blood Flow Redistribution Following Pulmonary Micro-embolism. , 2010, , .		0
130	Inert Gas Washout Simulations In Human Subjects. , 2010, , .		0
131	Spatial And Temporal Variation In PAO2 In The Pulmonary Acinus. , 2010, , .		0
132	Quantifying The Effects Of Body Position On Gradients Of Pulmonary Perfusion. , 2010, , .		0
133	The Influence Of The Regional Distribution Of Reduced Lung Elastic Recoil On FEV1. , 2010, , .		0
134	Contribution of serial and parallel microperfusion to spatial variability in pulmonary inter- and intra-acinar blood flow. Journal of Applied Physiology, 2010, 108, 1116-1126.	2.5	42
135	A Continuous-Binding Cross-Linker Model for Passive Airway Smooth Muscle. Biophysical Journal, 2010, 99, 3164-3171.	0.5	22
136	Numerical Study of High-Frequency Oscillatory Air Flow and Convective Mixing in a CT-Based Human Airway Model. Annals of Biomedical Engineering, 2010, 38, 3550-3571.	2.5	64
137	Computational Analyses of Airway Flow and Lung Tissue Dynamics. , 2010, , 375-402.		2
138	On intra- and intersubject variabilities of airflow in the human lungs. Physics of Fluids, 2009, 21, 101901.	4.0	128
139	Computational fluid dynamics. IEEE Engineering in Medicine and Biology Magazine, 2009, 28, 25-33.	0.8	81
140	Multiscale modeling in computational biomechanics. IEEE Engineering in Medicine and Biology Magazine, 2009, 28, 41-49.	0.8	27
141	Species-Specific Pulmonary Arterial Asymmetry Determines Species Differences in Regional Pulmonary Perfusion. Annals of Biomedical Engineering, 2009, 37, 2497-2509.	2.5	23
142	The lung physiome: merging imaging-based measures with predictive computational models. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2009, 1, 61-72.	6.6	45
143	The effects of geometry on airflow in the acinar region of the human lung. Journal of Biomechanics, 2009, 42, 1635-1642.	2.1	94
144	A mathematical model of calcium-induced fluid secretion in airway epithelium. Journal of Theoretical Biology, 2009, 259, 837-849.	1.7	22

#	ARTICLE	IF	CITATIONS
145	Supine and prone differences in regional lung density and pleural pressure gradients in the human lung with constant shape. <i>Journal of Applied Physiology</i> , 2009, 107, 912-920.	2.5	130
146	Modelling pulmonary blood flow. <i>Respiratory Physiology and Neurobiology</i> , 2008, 163, 150-157.	1.6	19
147	Pulmonary Gas Exchange in Anatomically-Based Models of the Lung. <i>Advances in Experimental Medicine and Biology</i> , 2008, 605, 184-189.	1.6	12
148	Multi-scale Models of the Lung Airways and Vascular System. <i>Advances in Experimental Medicine and Biology</i> , 2008, 605, 190-194.	1.6	12
149	Towards a virtual lung: multi-scale, multi-physics modelling of the pulmonary system. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2008, 366, 3247-3263.	3.4	51
150	The effect of lung orientation on functional imaging of blood flow. , 2007, , .		2
151	Characteristics of the turbulent laryngeal jet and its effect on airflow in the human intra-thoracic airways. <i>Respiratory Physiology and Neurobiology</i> , 2007, 157, 295-309.	1.6	268
152	An Imaging-based Computational Approach to Model Ventilation Distribution and Soft-tissue Deformation in the Ovine Lung1. <i>Academic Radiology</i> , 2006, 13, 113-120.	2.5	31
153	Computational predictions of pulmonary blood flow gradients: Gravity versus structure. <i>Respiratory Physiology and Neurobiology</i> , 2006, 154, 515-523.	1.6	58
154	Computational models of structure-function relationships in the pulmonary circulation and their validation. <i>Experimental Physiology</i> , 2006, 91, 285-293.	2.0	20
155	The IUPS Physiome Project: Progress and Plans. , 2006, , 383-393.		3
156	Evaluation of arterial blood flow heterogeneity via an image-based computational model. , 2005, , .		2
157	An image-based computational model of ovine lung mechanics and ventilation distribution. , 2005, 5746, 84.		3
158	Identifying airways responsible for heterogeneous ventilation and mechanical dysfunction in asthma: an image functional modeling approach. <i>Journal of Applied Physiology</i> , 2005, 99, 2388-2397.	2.5	143
159	Integration from proteins to organs: the IUPS Physiome Project. <i>Mechanisms of Ageing and Development</i> , 2005, 126, 187-192.	4.6	63
160	Anatomically based finite element models of the human pulmonary arterial and venous trees including supernumerary vessels. <i>Journal of Applied Physiology</i> , 2005, 99, 731-738.	2.5	114
161	Evaluation of the effect of postural and gravitational variations on the distribution of pulmonary blood flow via an image-based computational model. , 2005, 2005, 6138-40.		4
162	Investigation of the Relative Effects of Vascular Branching Structure and Gravity on Pulmonary Arterial Blood Flow Heterogeneity via an Image-based Computational Model1. <i>Academic Radiology</i> , 2005, 12, 1464-1474.	2.5	41

#	ARTICLE	IF	CITATIONS
163	CT-based geometry analysis and finite element models of the human and ovine bronchial tree. <i>Journal of Applied Physiology</i> , 2004, 97, 2310-2321.	2.5	286
164	Computational physiology and the physiome project. <i>Experimental Physiology</i> , 2004, 89, 1-26.	2.0	195
165	Modeling RBC and Neutrophil Distribution Through an Anatomically Based Pulmonary Capillary Network. <i>Annals of Biomedical Engineering</i> , 2004, 32, 585-595.	2.5	54
166	Modeling Water Vapor and Heat Transfer in the Normal and the Intubated Airways. <i>Annals of Biomedical Engineering</i> , 2004, 32, 609-622.	2.5	40
167	Multiscale Modeling for the Lung Physiome. <i>Cardiovascular Engineering (Dordrecht, Netherlands)</i> , 2004, 4, 19-26.	1.0	8
168	Anatomically based geometric modelling of the musculo-skeletal system and other organs. <i>Biomechanics and Modeling in Mechanobiology</i> , 2004, 2, 139-155.	2.8	192
169	The comprehensive imaging-based analysis of the lung. <i>Academic Radiology</i> , 2004, 11, 1370-1380.	2.5	67
170	Developing integrative computational models of pulmonary structure. <i>The Anatomical Record</i> , 2003, 275B, 207-218.	1.8	40
171	Characterising respiratory airway gas mixing using a lumped parameter model of the pulmonary acinus. <i>Respiration Physiology</i> , 2001, 127, 241-248.	2.7	38
172	Multibreath washout analysis: modelling the influence of conducting airway asymmetry. <i>Respiration Physiology</i> , 2001, 127, 249-258.	2.7	41
173	Aerosol Transport Modeling: The Key Link Between Lung Infections of Individuals and Populations. <i>Frontiers in Physiology</i> , 0, 13, .	2.8	12