

Paul W Buehler

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

3,780
citations

159585

30
h-index

128289

60
g-index

74
all docs

74
docs citations

74
times ranked

3968
citing authors

#	ARTICLE	IF	CITATIONS
1	In vitro effects of emicizumab on activated clotting time in blood samples from cardiac surgical patients. <i>Haemophilia</i> , 2022, 28, 183-190.	2.1	4
2	ZOOMICS: Comparative Metabolomics of Red Blood Cells From Guinea Pigs, Humans, and Non-human Primates During Refrigerated Storage for Up to 42 Days. <i>Frontiers in Physiology</i> , 2022, 13, 845347.	2.8	6
3	Deuterated Linoleic Acid Attenuates the RBC Storage Lesion in a Mouse Model of Poor RBC Storage. <i>Frontiers in Physiology</i> , 2022, 13, 868578.	2.8	7
4	Measurement of Tissue Oxygen as a Novel Approach to Optimizing Red Blood Cell Quality Assessment. <i>Advances in Experimental Medicine and Biology</i> , 2021, 1269, 379-386.	1.6	0
5	Agonistic Anti-CD40 Antibody Triggers an Acute Liver Crisis With Systemic Inflammation in Humanized Sickle Cell Disease Mice. <i>Frontiers in Immunology</i> , 2021, 12, 627944.	4.8	1
6	Fatty acid desaturase activity in mature red blood cells and implications for blood storage quality. <i>Transfusion</i> , 2021, 61, 1867-1883.	1.6	26
7	Modular Platform for the Development of Recombinant Hemoglobin Scavenger Biotherapeutics. <i>Molecular Pharmaceutics</i> , 2021, 18, 3158-3170.	4.6	7
8	Expanding EPR Oximetry into Transfusion Medicine. <i>Applied Magnetic Resonance</i> , 2021, 52, 1509-1519.	1.2	0
9	Biological and Clinical Factors Contributing to the Metabolic Heterogeneity of Hospitalized Patients with and without COVID-19. <i>Cells</i> , 2021, 10, 2293.	4.1	37
10	Hemopexin dosing improves cardiopulmonary dysfunction in murine sickle cell disease. <i>Free Radical Biology and Medicine</i> , 2021, 175, 95-107.	2.9	10
11	Extracellular Vesicles from Red Blood Cells and Their Evolving Roles in Health, Coagulopathy and Therapy. <i>International Journal of Molecular Sciences</i> , 2021, 22, 153.	4.1	77
12	Murine models of sickle cell disease and beta-thalassemia demonstrate pulmonary hypertension with distinctive features. <i>Pulmonary Circulation</i> , 2021, 11, 1-12.	1.7	11
13	Evidence supporting a role for circulating macrophages in the regression of vascular remodeling following sub-chronic exposure to hemoglobin plus hypoxia. <i>Pulmonary Circulation</i> , 2021, 11, 1-11.	1.7	1
14	The Impact of Age and BMI on the VWF/ADAMTS13 Axis and Simultaneous Thrombin and Plasmin Generation in Hospitalized COVID-19 Patients. <i>Frontiers in Medicine</i> , 2021, 8, 817305.	2.6	7
15	A Pharmacokinetic and Plasmin-Generation Pharmacodynamic Assessment of a Tranexamic Acid Regimen Designed for Cardiac Surgery With Cardiopulmonary Bypass. <i>Journal of Cardiothoracic and Vascular Anesthesia</i> , 2021, , .	1.3	3
16	Novel manufacturing method for producing apohemoglobin and its biophysical properties. <i>Biotechnology and Bioengineering</i> , 2020, 117, 125-145.	3.3	14
17	ZOOMICS: Comparative Metabolomics of Red Blood Cells From Old World Monkeys and Humans. <i>Frontiers in Physiology</i> , 2020, 11, 593841.	2.8	19
18	The effect of dietary nitrate supplementation on the speed-duration relationship in mice with sickle cell disease. <i>Journal of Applied Physiology</i> , 2020, 129, 474-482.	2.5	9

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19	Evidence of Structural Protein Damage and Membrane Lipid Remodeling in Red Blood Cells from COVID-19 Patients. <i>Journal of Proteome Research</i> , 2020, 19, 4455-4469.	3.7	189
20	Coagulopathy and Thrombosis as a Result of Severe COVID-19 Infection: A Microvascular Focus. <i>Thrombosis and Haemostasis</i> , 2020, 120, 1668-1679.	3.4	75
21	Polyethylene Oxide Molecular Size Determines the Severity of Atypical Thrombotic Microangiopathy in a Guinea Pig Model of Acute Intravenous Exposure. <i>Toxicological Sciences</i> , 2020, 177, 235-247.	3.1	3
22	Haptoglobin Therapeutics and Compartmentalization of Cell-Free Hemoglobin Toxicity. <i>Trends in Molecular Medicine</i> , 2020, 26, 683-697.	6.7	58
23	Ferroportin inhibition attenuates plasma iron, oxidant stress, and renal injury following red blood cell transfusion in guinea pigs. <i>Transfusion</i> , 2020, 60, 513-523.	1.6	5
24	Front Cover Image, Volume 117, Number 1, January 2020. <i>Biotechnology and Bioengineering</i> , 2020, 117, i.	3.3	0
25	Apo-hemoglobin-haptoglobin complex attenuates the pathobiology of circulating acellular hemoglobin and heme. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2020, 318, H1296-H1307.	3.2	12
26	Red blood cell metabolism in Rhesus macaques and humans: comparative biology of blood storage. <i>Haematologica</i> , 2020, 105, 2174-2186.	3.5	46
27	Effects of living at moderate altitude on pulmonary vascular function and exercise capacity in mice with sickle cell anaemia. <i>Journal of Physiology</i> , 2019, 597, 1073-1085.	2.9	11
28	An Hb-mediated circulating macrophage contributing to pulmonary vascular remodeling in sickle cell disease. <i>JCI Insight</i> , 2019, 4, .	5.0	17
29	Haptoglobin administration into the subarachnoid space prevents hemoglobin-induced cerebral vasospasm. <i>Journal of Clinical Investigation</i> , 2019, 129, 5219-5235.	8.2	57
30	Electron paramagnetic resonance oximetry as a novel approach to monitor the effectiveness and quality of red blood cell transfusions. <i>Blood Transfusion</i> , 2019, 17, 296-306.	0.4	6
31	Phenotype-specific recombinant haptoglobin polymers co-expressed with C1r-like protein as optimized hemoglobin-binding therapeutics. <i>BMC Biotechnology</i> , 2018, 18, 15.	3.3	18
32	Evaluation of renal oxygen homeostasis in a preclinical animal model to elucidate difference in blood quality after transfusion. <i>Transfusion</i> , 2018, 58, 1474-1485.	1.6	13
33	Revisiting the putative role of heme as a trigger of inflammation. <i>Pharmacology Research and Perspectives</i> , 2018, 6, e00392.	2.4	44
34	Impact of cell-free hemoglobin on contracting skeletal muscle microvascular oxygen pressure dynamics. <i>Nitric Oxide - Biology and Chemistry</i> , 2018, 76, 29-36.	2.7	10
35	Depletion of haptoglobin and hemopexin promote hemoglobin-mediated lipoprotein oxidation in sickle cell disease. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2018, 315, L765-L774.	2.9	34
36	Renal Toxicodynamic Effects of Extracellular Hemoglobin After Acute Exposure. <i>Toxicological Sciences</i> , 2018, 166, 180-191.	3.1	9

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37	The quaternary state of polymerized human hemoglobin regulates oxygenation of breast cancer solid tumors: A theoretical and experimental study. PLoS ONE, 2018, 13, e0191275.	2.5	24
38	A mechanistic investigation of thrombotic microangiopathy associated with IV abuse of Opana ER. Blood, 2017, 129, 896-905.	1.4	30
39	Iron accelerates hemoglobin oxidation increasing mortality in vascular diseased guinea pigs following transfusion of stored blood. JCI Insight, 2017, 2, .	5.0	22
40	Hemoglobin induced cell trauma indirectly influences endothelial TLR9 activity resulting in pulmonary vascular smooth muscle cell activation. PLoS ONE, 2017, 12, e0171219.	2.5	10
41	Transcriptional Suppression of Renal Antioxidant Enzyme Systems in Guinea Pigs Exposed to Polymerized Cell-Free Hemoglobin. Toxics, 2016, 4, 6.	3.7	19
42	Haptoglobin Preserves Vascular Nitric Oxide Signaling during Hemolysis. American Journal of Respiratory and Critical Care Medicine, 2016, 193, 1111-1122.	5.6	73
43	Different target specificities of haptoglobin and hemopexin define a sequential protection system against vascular hemoglobin toxicity. Free Radical Biology and Medicine, 2015, 89, 931-943.	2.9	59
44	Reversal of hemochromatosis by apotransferrin in non-transfused and transfused Hbbth3/+ (heterozygous b1/b2 globin gene deletion) mice. Haematologica, 2015, 100, 611-622.	3.5	48
45	Hemoglobin-induced lung vascular oxidation, inflammation, and remodeling contribute to the progression of hypoxic pulmonary hypertension and is attenuated in rats with repeated-dose haptoglobin administration. Free Radical Biology and Medicine, 2015, 82, 50-62.	2.9	50
46	Integrative Proteome and Transcriptome Analysis of Extramedullary Erythropoiesis and Its Reversal by Transferrin Treatment in a Mouse Model of Beta-Thalassemia. Journal of Proteome Research, 2015, 14, 1089-1100.	3.7	6
47	Spin trapping combined with quantitative mass spectrometry defines free radical redistribution within the oxidized hemoglobin:haptoglobin complex. Free Radical Biology and Medicine, 2015, 85, 259-268.	2.9	18
48	Sodium nitrite potentiates renal oxidative stress and injury in hemoglobin exposed guinea pigs. Toxicology, 2015, 333, 89-99.	4.2	26
49	Modeling hemoglobin and hemoglobin:haptoglobin complex clearance in a non-rodent species—pharmacokinetic and therapeutic implications. Frontiers in Physiology, 2014, 5, 385.	2.8	20
50	Haptoglobin, hemopexin, and related defense pathways—basic science, clinical perspectives, and drug development. Frontiers in Physiology, 2014, 5, 415.	2.8	204
51	Extracellular Hb Enhances Cardiac Toxicity in Endotoxemic Guinea Pigs: Protective Role of Haptoglobin. Toxins, 2014, 6, 1244-1259.	3.4	18
52	Hemolysis and free hemoglobin revisited: exploring hemoglobin and hemin scavengers as a novel class of therapeutic proteins. Blood, 2013, 121, 1276-1284.	1.4	582
53	Free hemoglobin induction of pulmonary vascular disease: evidence for an inflammatory mechanism. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2012, 303, L312-L326.	2.9	45
54	Hemoglobin-driven pathophysiology is an in vivo consequence of the red blood cell storage lesion that can be attenuated in guinea pigs by haptoglobin therapy. Journal of Clinical Investigation, 2012, 122, 1444-1458.	8.2	247

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55	Blood Aging, Safety, and Transfusion: Capturing the "Radical" Menace. <i>Antioxidants and Redox Signaling</i> , 2011, 14, 1713-1728.	5.4	35
56	Sodium nitrite induces acute central nervous system toxicity in guinea pigs exposed to systemic cell-free hemoglobin. <i>Biochemical and Biophysical Research Communications</i> , 2011, 409, 412-417.	2.1	8
57	Synthesis, biophysical properties and pharmacokinetics of ultrahigh molecular weight tense and relaxed state polymerized bovine hemoglobins. <i>Biomaterials</i> , 2010, 31, 3723-3735.	11.4	35
58	Quantitative Mass Spectrometry Defines an Oxidative Hotspot in Hemoglobin that is Specifically Protected by Haptoglobin. <i>Journal of Proteome Research</i> , 2010, 9, 4061-4070.	3.7	67
59	Hemoglobin-based oxygen carriers: from mechanisms of toxicity and clearance to rational drug design. <i>Trends in Molecular Medicine</i> , 2010, 16, 447-457.	6.7	127
60	Toxicological Consequences of Extracellular Hemoglobin: Biochemical and Physiological Perspectives. <i>Antioxidants and Redox Signaling</i> , 2010, 12, 275-291.	5.4	88
61	Low dose chronically infused hemoglobin induces pulmonary hypertension or exacerbates hypoxia-induced pulmonary hypertension. <i>FASEB Journal</i> , 2010, 24, lb541.	0.5	0
62	Haptoglobin preserves the CD163 hemoglobin scavenger pathway by shielding hemoglobin from peroxidative modification. <i>Blood</i> , 2009, 113, 2578-2586.	1.4	169
63	Sequestration of extracellular hemoglobin within a haptoglobin complex decreases its hypertensive and oxidative effects in dogs and guinea pigs. <i>Journal of Clinical Investigation</i> , 2009, 119, 2271-80.	8.2	156
64	All hemoglobin-based oxygen carriers are not created equally. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2008, 1784, 1378-1381.	2.3	54
65	Structural Stabilization in Tetrameric or Polymeric Hemoglobin Determines Its Interaction with Endogenous Antioxidant Scavenger Pathways. <i>Antioxidants and Redox Signaling</i> , 2008, 10, 1449-1462.	5.4	43
66	Structural Basis of Peroxide-mediated Changes in Human Hemoglobin. <i>Journal of Biological Chemistry</i> , 2007, 282, 4894-4907.	3.4	134
67	Effects of Endogenous Ascorbate on Oxidation, Oxygenation, and Toxicokinetics of Cell-Free Modified Hemoglobin after Exchange Transfusion in Rat and Guinea Pig. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2007, 323, 49-60.	2.5	86
68	Chemical Characterization of Diaspirin Cross-Linked Hemoglobin Polymerized with Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 .	0.5	19
69	CD163 is the macrophage scavenger receptor for native and chemically modified hemoglobins in the absence of haptoglobin. <i>Blood</i> , 2006, 107, 373-380.	1.4	248
70	Structural and Functional Characterization of Glutaraldehyde-Polymerized Bovine Hemoglobin and Its Isolated Fractions. <i>Analytical Chemistry</i> , 2005, 77, 3466-3478.	6.5	72
71	Redox Biology of Blood Revisited: The Role of Red Blood Cells in Maintaining Circulatory Reductive Capacity. <i>Antioxidants and Redox Signaling</i> , 2005, 7, 1755-1760.	5.4	43
72	Oxygen Sensing in the Circulation: "Cross Talk" Between Red Blood Cells and the Vasculature. <i>Antioxidants and Redox Signaling</i> , 2004, 6, 1000-1010.	5.4	25