

Wolfgang G Junger

List of Publications by Year in descending order

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112
papers

10,894
citations

46918

47
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31759

101
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113
all docs

113
docs citations

113
times ranked

15947
citing authors

#	ARTICLE	IF	CITATIONS
1	Circulating mitochondrial DAMPs cause inflammatory responses to injury. <i>Nature</i> , 2010, 464, 104-107.	13.7	2,983
2	ATP Release Guides Neutrophil Chemotaxis via P2Y2 and A3 Receptors. <i>Science</i> , 2006, 314, 1792-1795.	6.0	756
3	Immune cell regulation by autocrine purinergic signalling. <i>Nature Reviews Immunology</i> , 2011, 11, 201-212.	10.6	680
4	Negative feedback control of neuronal activity by microglia. <i>Nature</i> , 2020, 586, 417-423.	13.7	520
5	CD39 Expression Identifies Terminally Exhausted CD8+ T Cells. <i>PLoS Pathogens</i> , 2015, 11, e1005177.	2.1	296
6	Pannexin-1 hemichannel-mediated ATP release together with P2X1 and P2X4 receptors regulate T-cell activation at the immune synapse. <i>Blood</i> , 2010, 116, 3475-3484.	0.6	273
7	Autocrine regulation of T cell activation by ATP release and P2X ₇ receptors. <i>FASEB Journal</i> , 2009, 23, 1685-1693.	0.2	251
8	HYPERTONIC SALINE RESUSCITATION DIMINISHES LUNG INJURY BY SUPPRESSING NEUTROPHIL ACTIVATION AFTER HEMORRHAGIC SHOCK. <i>Shock</i> , 1998, 9, 164-170.	1.0	194
9	Purinergic Signaling: A Fundamental Mechanism in Neutrophil Activation. <i>Science Signaling</i> , 2010, 3, ra45.	1.6	181
10	Hypertonic Saline Resuscitation Decreases Susceptibility to Sepsis after Hemorrhagic Shock. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 1997, 42, 602-607.	1.1	171
11	HYPERTONIC SALINE RESUSCITATION. <i>Shock</i> , 1997, 8, 235-241.	1.0	160
12	Mice lacking P2Y ₂ receptors have salt-resistant hypertension and facilitated renal Na ⁺ and water reabsorption. <i>FASEB Journal</i> , 2007, 21, 3717-3726.	0.2	160
13	Shock Wave Treatment Enhances Cell Proliferation and Improves Wound Healing by ATP Release-coupled Extracellular Signal-regulated Kinase (ERK) Activation. <i>Journal of Biological Chemistry</i> , 2014, 289, 27090-27104.	1.6	134
14	Measurement of Oxidative Burst in Neutrophils. <i>Methods in Molecular Biology</i> , 2012, 844, 115-124.	0.4	132
15	Abandon the Mouse Research Ship? Not Just Yet!. <i>Shock</i> , 2014, 41, 463-475.	1.0	126
16	Hypertonic Saline Resuscitation Restores Hemorrhage-Induced Immunosuppression by Decreasing Prostaglandin E ₂ and Interleukin-4 Production. <i>Journal of Surgical Research</i> , 1996, 64, 203-209.	0.8	125
17	Hypertonic Stress Increases T Cell Interleukin-2 Expression through a Mechanism That Involves ATP Release, P ₂ Receptor, and p38 MAPK Activation. <i>Journal of Biological Chemistry</i> , 2003, 278, 4590-4596.	1.6	110
18	Purinergic P2X ₄ receptors and mitochondrial ATP production regulate T cell migration. <i>Journal of Clinical Investigation</i> , 2018, 128, 3583-3594.	3.9	110

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19	Ecto-nucleoside Triphosphate Diphosphohydrolase 1 (E-NTPDase1/CD39) Regulates Neutrophil Chemotaxis by Hydrolyzing Released ATP to Adenosine. <i>Journal of Biological Chemistry</i> , 2008, 283, 28480-28486.	1.6	108
20	Mitochondria Regulate Neutrophil Activation by Generating ATP for Autocrine Purinergic Signaling. <i>Journal of Biological Chemistry</i> , 2014, 289, 26794-26803.	1.6	108
21	mTOR and differential activation of mitochondria orchestrate neutrophil chemotaxis. <i>Journal of Cell Biology</i> , 2015, 210, 1153-1164.	2.3	107
22	Shockwaves Induce Osteogenic Differentiation of Human Mesenchymal Stem Cells Through ATP Release and Activation of P2X7 Receptors. <i>Stem Cells</i> , 2013, 31, 1170-1180.	1.4	106
23	P2X7 Integrates PI3K/AKT and AMPK-PRAS40-mTOR Signaling Pathways to Mediate Tumor Cell Death. <i>PLoS ONE</i> , 2013, 8, e60184.	1.1	102
24	Hypertonic Saline Resuscitation Reduces Neutrophil Margination by Suppressing Neutrophil L Selectin Expression. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 1998, 45, 7-13.	1.1	94
25	Pannexin 1 Channels Link Chemoattractant Receptor Signaling to Local Excitation and Global Inhibition Responses at the Front and Back of Polarized Neutrophils. <i>Journal of Biological Chemistry</i> , 2013, 288, 22650-22657.	1.6	91
26	A3 AND P2Y2 RECEPTORS CONTROL THE RECRUITMENT OF NEUTROPHILS TO THE LUNGS IN A MOUSE MODEL OF SEPSIS. <i>Shock</i> , 2008, 30, 173-177.	1.0	87
27	Hypertonic stress regulates T cell function via pannexin-1 hemichannels and P2X receptors. <i>Journal of Leukocyte Biology</i> , 2010, 88, 1181-1189.	1.5	86
28	Mitochondria Are Gate-keepers of T Cell Function by Producing the ATP That Drives Purinergic Signaling. <i>Journal of Biological Chemistry</i> , 2014, 289, 25936-25945.	1.6	86
29	EFFECT OF DOSE OF HYPERTONIC SALINE ON ITS POTENTIAL TO PREVENT LUNG TISSUE DAMAGE IN A MOUSE MODEL OF HEMORRHAGIC SHOCK. <i>Shock</i> , 2003, 20, 29-34.	1.0	83
30	HYPERTONIC SALINE RESUSCITATION REDUCES APOPTOSIS AND TISSUE DAMAGE OF THE SMALL INTESTINE IN A MOUSE MODEL OF HEMORRHAGIC SHOCK. <i>Shock</i> , 2003, 20, 23-28.	1.0	80
31	A putative osmoreceptor system that controls neutrophil function through the release of ATP, its conversion to adenosine, and activation of A2 adenosine and P2 receptors. <i>Journal of Leukocyte Biology</i> , 2004, 76, 245-253.	1.5	79
32	Airway brush cells generate cysteinyl leukotrienes through the ATP sensor P2Y2. <i>Science Immunology</i> , 2020, 5, .	5.6	76
33	Disordered purinergic signaling and abnormal cellular metabolism are associated with development of liver cancer in <i>Cd39/Entpd1</i> null Mice. <i>Hepatology</i> , 2013, 57, 205-216.	3.6	75
34	OSMOTIC REGULATION OF CELL FUNCTION AND POSSIBLE CLINICAL APPLICATIONS. <i>Shock</i> , 2004, 21, 391-400.	1.0	68
35	SMALL-VOLUME FLUID RESUSCITATION WITH HYPERTONIC SALINE PREVENTS INFLAMMATION BUT NOT MORTALITY IN A RAT MODEL OF HEMORRHAGIC SHOCK. <i>Shock</i> , 2006, 25, 283-289.	1.0	68
36	A novel method using fluorescence microscopy for real-time assessment of ATP release from individual cells. <i>American Journal of Physiology - Cell Physiology</i> , 2007, 293, C1420-C1425.	2.1	68

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37	Deletion of CD39 on natural killer cells attenuates hepatic ischemia/reperfusion injury in mice. <i>Hepatology</i> , 2010, 51, 1702-1711.	3.6	66
38	ACUTE LUNG INJURY IN ENDOTOXEMIC RATS IS ASSOCIATED WITH SUSTAINED CIRCULATING IL-6 LEVELS AND INTRAPULMONARY CINC ACTIVITY AND NEUTROPHIL RECRUITMENTâ€”ROLE OF CIRCULATING TNF- α AND IL- 1β . <i>Shock</i> , 1996, 6, 39-45.	1.0	64
39	Hypertonicity rescues T cells from suppression by trauma-induced anti-inflammatory mediators. <i>American Journal of Physiology - Cell Physiology</i> , 2001, 281, C840-C848.	2.1	63
40	Resuscitation of Traumatic Hemorrhagic Shock Patients With Hypertonic Salineâ€”Without Dextranâ€”Inhibits Neutrophil and Endothelial Cell Activation. <i>Shock</i> , 2012, 38, 341-350.	1.0	62
41	HYPERTONIC/HYPERONCOTIC FLUIDS REVERSE PROSTAGLANDIN E2 (PGE2)-INDUCED T-CELL SUPPRESSION. <i>Shock</i> , 1995, 4, 45-49.	1.0	61
42	HYPERTONIC SALINE INFUSION. <i>Shock</i> , 2000, 14, 503-508.	1.0	60
43	Purinergic regulation of neutrophil chemotaxis. <i>Cellular and Molecular Life Sciences</i> , 2008, 65, 2528-2540.	2.4	60
44	Pentoxifylline reduces acute lung injury in chronic endotoxemia. <i>Journal of Surgical Research</i> , 2003, 115, 92-99.	0.8	59
45	NADH oxidase-dependent CD39 expression by CD8+ T cells modulates interferon gamma responses via generation of adenosine. <i>Nature Communications</i> , 2015, 6, 8819.	5.8	59
46	Hypertonic saline up-regulates A3 adenosine receptor expression of activated neutrophils and increases acute lung injury after sepsis*. <i>Critical Care Medicine</i> , 2008, 36, 2569-2575.	0.4	50
47	Hypertonic Saline Activates Protein Tyrosine Kinases and Mitogen-activated Protein Kinase p38 in T-cells. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 1997, 42, 437-445.	1.1	50
48	Plasma ATP is Required for Neutrophil Activation in a Mouse Sepsis Model. <i>Shock</i> , 2014, 42, 142-147.	1.0	49
49	DOES THE TIMING OF HYPERTONIC SALINE RESUSCITATION AFFECT ITS POTENTIAL TO PREVENT LUNG DAMAGE?. <i>Shock</i> , 2000, 14, 18-23.	1.0	48
50	Hypertonicity increases cAMP in PMN and blocks oxidative burst by PKA-dependent and -independent mechanisms. <i>American Journal of Physiology - Cell Physiology</i> , 2002, 282, C1261-C1269.	2.1	46
51	ATP release and autocrine signaling through P2X4 receptors regulate $\hat{I}^3\hat{I}$ T cell activation. <i>Journal of Leukocyte Biology</i> , 2012, 92, 787-794.	1.5	46
52	Shockwaves increase T-cell proliferation and IL-2 expression through ATP release, P2X7 receptors, and FAK activation. <i>American Journal of Physiology - Cell Physiology</i> , 2010, 298, C457-C464.	2.1	45
53	Purinergic Signaling and the Immune Response in Sepsis: A Review. <i>Clinical Therapeutics</i> , 2016, 38, 1054-1065.	1.1	44
54	Prehospital Hypertonic Saline Resuscitation Attenuates the Activation and Promotes Apoptosis of Neutrophils in Patients With Severe Traumatic Brain Injury. <i>Shock</i> , 2013, 40, 366-374.	1.0	43

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55	Hypertonic saline enhances neutrophil elastase release through activation of P2 and A3 receptors. <i>American Journal of Physiology - Cell Physiology</i> , 2006, 290, C1051-C1059.	2.1	42
56	Surface expression of HSP72 by LPS-stimulated neutrophils facilitates $\hat{\beta}$ T cell-mediated killing. <i>European Journal of Immunology</i> , 2006, 36, 712-721.	1.6	41
57	Hyperthermia and associated changes in membrane fluidity potentiate P2X7 activation to promote tumor cell death. <i>Oncotarget</i> , 2017, 8, 67254-67268.	0.8	40
58	Prehospital Resuscitation of Traumatic Hemorrhagic Shock with Hypertonic Solutions Worsens Hypocoagulation and Hyperfibrinolysis. <i>Shock</i> , 2015, 44, 25-31.	1.0	39
59	Mitochondrial Dysfunction, Depleted Purinergic Signaling, and Defective T Cell Vigilance and Immune Defense. <i>Journal of Infectious Diseases</i> , 2016, 213, 456-464.	1.9	39
60	The purinergic receptor P2Y11 choreographs the polarization, mitochondrial metabolism, and migration of T lymphocytes. <i>Science Signaling</i> , 2020, 13, .	1.6	37
61	Roles of Heat Shock Proteins and $\hat{\beta}$ T Cells in Inflammation. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2008, 39, 509-513.	1.4	36
62	EFFECTS OF TRAUMA ON IMMUNE CELL FUNCTION. <i>Shock</i> , 1994, 2, 23-28.	1.0	34
63	Pulmonary Natural Killer T Cells Play an Essential Role in Mediating Hyperoxic Acute Lung Injury. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2013, 48, 601-609.	1.4	33
64	Systemic Adenosine Triphosphate Impairs Neutrophil Chemotaxis and Host Defense in Sepsis. <i>Critical Care Medicine</i> , 2017, 45, e97-e104.	0.4	33
65	Pancreatic enzymes sustain systemic inflammation after an initial endotoxin challenge. <i>Surgery</i> , 2003, 134, 446-456.	1.0	32
66	Cutting off the power: inhibition of leukemia cell growth by pausing basal ATP release and P2X receptor signaling?. <i>Purinergic Signalling</i> , 2016, 12, 439-451.	1.1	32
67	Bacterial DNA Induces Pulmonary Damage Via TLR-9 Through Cross-talk With Neutrophils. <i>Shock</i> , 2011, 36, 548-552.	1.0	31
68	Immunosuppression after Endotoxin Shock. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 1996, 40, 702-709.	1.1	30
69	Adrenergic receptor activation involves ATP release and feedback through purinergic receptors. <i>American Journal of Physiology - Cell Physiology</i> , 2010, 299, C1118-C1126.	2.1	29
70	Hypertonic Saline Resuscitation: Efficacy May Require Early Treatment in Severely Injured Patients. <i>Journal of Trauma</i> , 2007, 62, 299-306.	2.3	28
71	CD39 Modulates Hematopoietic Stem Cell Recruitment and Promotes Liver Regeneration in Mice and Humans After Partial Hepatectomy. <i>Annals of Surgery</i> , 2013, 257, 693-701.	2.1	28
72	HYPERTONIC STRESS REGULATES T-CELL FUNCTION BY THE OPPOSING ACTIONS OF EXTRACELLULAR ADENOSINE TRIPHOSPHATE AND ADENOSINE. <i>Shock</i> , 2007, 27, 242-250.	1.0	27

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73	Inhibition of Enteral Enzymes by Enteroclysis with Nafamostat Mesilate Reduces Neutrophil Activation and Transfusion Requirements after Hemorrhagic Shock. <i>Journal of Trauma</i> , 2004, 56, 501-511.	2.3	22
74	Novel method for real-time monitoring of ATP release reveals multiple phases of autocrine purinergic signalling during immune cell activation. <i>Acta Physiologica</i> , 2015, 213, 334-345.	1.8	22
75	Lipopolysaccharide suppresses T cells by generating extracellular ATP that impairs their mitochondrial function via P2Y11 receptors. <i>Journal of Biological Chemistry</i> , 2019, 294, 6283-6293.	1.6	22
76	Adenosine arrests breast cancer cell motility by A3 receptor stimulation. <i>Purinergic Signalling</i> , 2016, 12, 673-685.	1.1	21
77	Inhibition of Neutrophils by Hypertonic Saline Involves Pannexin-1, CD39, CD73, and Other Ectonucleotidases. <i>Shock</i> , 2015, 44, 221-227.	1.0	20
78	TUMOR NECROSIS FACTOR ANTIBODY TREATMENT OF SEPTIC BABOONS REDUCES THE PRODUCTION OF SUSTAINED T-CELL SUPPRESSIVE FACTORS. <i>Shock</i> , 1995, 3, 173-178.	1.0	18
79	Adenosine Triphosphate Release is Required for Toll-Like Receptor-Induced Monocyte/Macrophage Activation, Inflammasome Signaling, Interleukin-1 β Production, and the Host Immune Response to Infection. <i>Critical Care Medicine</i> , 2018, 46, e1183-e1189.	0.4	18
80	Autocrine stimulation of P2Y1 receptors is part of the purinergic signaling mechanism that regulates T cell activation. <i>Purinergic Signalling</i> , 2019, 15, 127-137.	1.1	18
81	Purinergic P2Y2 receptors modulate endothelial sprouting. <i>Cellular and Molecular Life Sciences</i> , 2020, 77, 885-901.	2.4	17
82	Proliferation assays with human, rabbit, rat, and mouse lymphocytes. <i>In Vitro Cellular and Developmental Biology - Animal</i> , 1996, 32, 520-523.	0.7	16
83	Increased Neutrophil Adenosine A3 Receptor Expression Is Associated With Hemorrhagic Shock and Injury Severity in Trauma Patients. <i>Shock</i> , 2011, 36, 435-439.	1.0	16
84	RIG-I and TLR4 responses and adverse outcomes in pediatric influenza-related critical illness. <i>Journal of Allergy and Clinical Immunology</i> , 2020, 145, 1673-1680.e11.	1.5	16
85	Frontline Science: P2Y11 receptors support T cell activation by directing mitochondrial trafficking to the immune synapse. <i>Journal of Leukocyte Biology</i> , 2021, 109, 497-508.	1.5	14
86	A3 Adenosine Receptor Inhibition Improves the Efficacy of Hypertonic Saline Resuscitation. <i>Shock</i> , 2011, 35, 178-183.	1.0	13
87	Shock wave-induced ATP release from osteosarcoma U2OS cells promotes cellular uptake and cytotoxicity of methotrexate. <i>Journal of Experimental and Clinical Cancer Research</i> , 2016, 35, 161.	3.5	13
88	Mitochondria Synergize With P2 Receptors to Regulate Human T Cell Function. <i>Frontiers in Immunology</i> , 2020, 11, 549889.	2.2	12
89	Frontline Science: <i>Escherichia coli</i> use LPS as decoy to impair neutrophil chemotaxis and defeat antimicrobial host defense. <i>Journal of Leukocyte Biology</i> , 2019, 106, 1211-1219.	1.5	11
90	Hypertonicity Promotes Survival of Corticospinal Motoneurons via Mitogen-Activated Protein Kinase p38 Signaling. <i>Journal of Molecular Neuroscience</i> , 2003, 21, 111-120.	1.1	9

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91	Optimized HPLC method to elucidate the complex purinergic signaling dynamics that regulate ATP, ADP, AMP, and adenosine levels in human blood. <i>Purinergic Signalling</i> , 2022, 18, 223-239.	1.1	9
92	Hypertonic saline increases $\text{I}\beta\text{T}$ cell-mediated killing of activated neutrophils. <i>Critical Care Medicine</i> , 2008, 36, 3220-3225.	0.4	8
93	Whole-Blood Assay to Measure Oxidative Burst and Degranulation of Neutrophils for Monitoring Trauma Patients. <i>European Journal of Trauma and Emergency Surgery</i> , 2005, 31, 379-388.	0.3	7
94	Plasma Adenylate Levels are Elevated in Cardiopulmonary Arrest Patients and May Predict Mortality. <i>Shock</i> , 2019, 51, 698-705.	1.0	7
95	Structural and functional characterization of engineered bifunctional fusion proteins of CD39 and CD73 ectonucleotidases. <i>American Journal of Physiology - Cell Physiology</i> , 2021, 320, C15-C29.	2.1	7
96	Hypertonic saline reduces neutrophil-epithelial interactions in vitro and gut tissue damage in a mouse model of colitis. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2008, 295, R1839-R1845.	0.9	6
97	Monocyte Human Leukocyte Antigen β “DR Expression β ”A Tool to Distinguish Intestinal Bacterial Infections From Inflammatory Bowel Disease?. <i>Shock</i> , 2013, 40, 89-94.	1.0	6
98	Adenosine 5 β ™-Monophosphate Protects from Hypoxia by Lowering Mitochondrial Metabolism and Oxygen Demand. <i>Shock</i> , 2020, 54, 237-244.	1.0	6
99	Extracellular mitochondria drive CD8 T cell dysfunction in trauma by upregulating CD39. <i>Thorax</i> , 2023, 78, 151-159.	2.7	6
100	Alteration in Ca ²⁺ homeostasis by a trauma peptide. <i>Journal of Surgical Research</i> , 1991, 51, 477-483.	0.8	5
101	CELL SURFACE EXPRESSION OF A3 AND A2A ADENOSINE RECEPTORS DEFINES THE RESPONSE OF PMN TO HYPERTONIC SALINE. <i>Shock</i> , 2006, 26, 29.	1.0	5
102	Removal of extracellular ATP improves fMLP-induced neutrophil chemotaxis. , 2016, , .		2
103	HEAT SHOCK PROTEIN 72 MARKS PMN FOR $\text{I}\beta\text{T}$ CELL-MEDIATED KILLING. <i>Shock</i> , 2006, 26, 11.	1.0	0
104	MODULATION OF T CELL FUNCTION BY ATP, ADENOSINE, AND P1/P2 RECEPTORS. <i>Shock</i> , 2006, 26, 17.	1.0	0
105	CONTROL OF PMN CHEMOTAXIS BY AUTOCRINE FEEDBACK THROUGH PURINERGIC RECEPTORS. <i>Shock</i> , 2006, 26, 18.	1.0	0
106	Heat Shock Proteins and the Resolution of Inflammation by Lymphocytes. , 2007, , 337-354.		0
107	P2Y2 Is An Epithelial Brush Cell Receptor For ATP-Elicited Cysteinyl Leukotrienes Generation. <i>Journal of Allergy and Clinical Immunology</i> , 2020, 145, AB158.	1.5	0
108	Purinergic signaling integrates local excitation and global inhibition signals that regulate neutrophil chemotaxis. <i>FASEB Journal</i> , 2013, 27, 729.2.	0.2	0

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109	Inflammasome activation: A form of autocrine purinergic signaling in monocytes. FASEB Journal, 2015, 29, 973.5.	0.2	0
110	Systemic ATP Levels Suppress the Function of CD4 + T Cells in Sepsis by Impairing Autocrine Purinergic Signaling. FASEB Journal, 2015, 29, 972.6.	0.2	0
111	Mitochondria Orchestrate Chemotaxis of Neutrophils by Fueling Their Autocrine Purinergic Signaling Systems. FASEB Journal, 2015, 29, 671.2.	0.2	0
112	mTOR and differential activation of mitochondria orchestrate neutrophil chemotaxis. Journal of Experimental Medicine, 2015, 212, 212110IA93.	4.2	0