

Valentin A Pavlov

List of Publications by Year in descending order

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95
papers

9,991
citations

61984

43
h-index

64796

79
g-index

101
all docs

101
docs citations

101
times ranked

9130
citing authors

#	ARTICLE	IF	CITATIONS
1	Acetylcholine-Synthesizing T Cells Relay Neural Signals in a Vagus Nerve Circuit. <i>Science</i> , 2011, 334, 98-101.	12.6	1,158
2	The vagus nerve and the inflammatory reflex“linking immunity and metabolism. <i>Nature Reviews Endocrinology</i> , 2012, 8, 743-754.	9.6	635
3	Splenectomy inactivates the cholinergic antiinflammatory pathway during lethal endotoxemia and polymicrobial sepsis. <i>Journal of Experimental Medicine</i> , 2006, 203, 1623-1628.	8.5	630
4	The Cholinergic Anti-inflammatory Pathway: A Missing Link in Neuroimmunomodulation. <i>Molecular Medicine</i> , 2003, 9, 125-134.	4.4	566
5	The cholinergic anti-inflammatory pathway. <i>Brain, Behavior, and Immunity</i> , 2005, 19, 493-499.	4.1	472
6	Mechanisms and Therapeutic Relevance of Neuro-immune Communication. <i>Immunity</i> , 2017, 46, 927-942.	14.3	445
7	Brain acetylcholinesterase activity controls systemic cytokine levels through the cholinergic anti-inflammatory pathway. <i>Brain, Behavior, and Immunity</i> , 2009, 23, 41-45.	4.1	378
8	Neural regulation of immunity: molecular mechanisms and clinical translation. <i>Nature Neuroscience</i> , 2017, 20, 156-166.	14.8	357
9	Selective $\alpha 7$ -nicotinic acetylcholine receptor agonist GTS-21 improves survival in murine endotoxemia and severe sepsis*. <i>Critical Care Medicine</i> , 2007, 35, 1139-1144.	0.9	352
10	Molecular and Functional Neuroscience in Immunity. <i>Annual Review of Immunology</i> , 2018, 36, 783-812.	21.8	304
11	Central muscarinic cholinergic regulation of the systemic inflammatory response during endotoxemia. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 5219-5223.	7.1	295
12	Modulation of TNF Release by Choline Requires $\alpha 7$ Subunit Nicotinic Acetylcholine Receptor-Mediated Signaling. <i>Molecular Medicine</i> , 2008, 14, 567-574.	4.4	288
13	ISO-1 Binding to the Tautomerase Active Site of MIF Inhibits Its Pro-inflammatory Activity and Increases Survival in Severe Sepsis. <i>Journal of Biological Chemistry</i> , 2005, 280, 36541-36544.	3.4	264
14	The cholinergic anti-inflammatory pathway: a missing link in neuroimmunomodulation. <i>Molecular Medicine</i> , 2003, 9, 125-34.	4.4	241
15	Transcutaneous vagus nerve stimulation reduces serum high mobility group box 1 levels and improves survival in murine sepsis*. <i>Critical Care Medicine</i> , 2007, 35, 2762-2768.	0.9	216
16	Transcutaneous vagus nerve stimulation reduces serum high mobility group box 1 levels and improves survival in murine sepsis *. <i>Critical Care Medicine</i> , 2007, 35, 2762-2768.	0.9	211
17	Neural circuitry and immunity. <i>Immunologic Research</i> , 2015, 63, 38-57.	2.9	204
18	Controlling inflammation: the cholinergic anti-inflammatory pathway. <i>Biochemical Society Transactions</i> , 2006, 34, 1037-1040.	3.4	190

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19	Central cholinergic activation of a vagus nerve-to-spleen circuit alleviates experimental colitis. <i>Mucosal Immunology</i> , 2014, 7, 335-347.	6.0	170
20	±7 Nicotinic Acetylcholine Receptor (±7nAChR) Expression in Bone Marrow-Derived Non-T Cells Is Required for the Inflammatory Reflex. <i>Molecular Medicine</i> , 2012, 18, 539-543.	4.4	133
21	Neuro-immune interactions via the cholinergic anti-inflammatory pathway. <i>Life Sciences</i> , 2007, 80, 2325-2329.	4.3	127
22	Galantamine Alleviates Inflammation and Other Obesity-Associated Complications in High-Fat Diet-Fed Mice. <i>Molecular Medicine</i> , 2011, 17, 599-606.	4.4	96
23	Acetylcholine regulation of synoviocyte cytokine expression by the ±7 nicotinic receptor. <i>Arthritis and Rheumatism</i> , 2008, 58, 3439-3449.	6.7	93
24	Post-sepsis syndrome “an evolving entity that afflicts survivors of sepsis. <i>Molecular Medicine</i> , 2020, 26, 6.	4.4	80
25	Central Muscarinic Cholinergic Activation Alters Interaction between Splenic Dendritic Cell and CD4+CD25- T Cells in Experimental Colitis. <i>PLoS ONE</i> , 2014, 9, e109272.	2.5	80
26	Brain Region-Specific Alterations in the Gene Expression of Cytokines, Immune Cell Markers and Cholinergic System Components during Peripheral Endotoxin-Induced Inflammation. <i>Molecular Medicine</i> , 2014, 20, 601-611.	4.4	79
27	Identification of a brainstem locus that inhibits tumor necrosis factor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 29803-29810.	7.1	76
28	Expression of Concern: <sc>HMGB</sc>1 mediates splenomegaly and expansion of splenic <sc>CD</sc>11b+ <sc>L</sc>â€C<sc>C</sc>^{high} inflammatory monocytes in murine sepsis survivors. <i>Journal of Internal Medicine</i> , 2013, 274, 381-390.	6.0	74
29	Blood pressure regulation by CD4+ lymphocytes expressing choline acetyltransferase. <i>Nature Biotechnology</i> , 2016, 34, 1066-1071.	17.5	74
30	Forebrain Cholinergic Dysfunction and Systemic and Brain Inflammation in Murine Sepsis Survivors. <i>Frontiers in Immunology</i> , 2017, 8, 1673.	4.8	74
31	Single-Pulse and Unidirectional Electrical Activation of the Cervical Vagus Nerve Reduces Tumor Necrosis Factor in Endotoxemia. <i>Bioelectronic Medicine</i> , 2015, 2, 37-42.	2.3	65
32	Xanomeline suppresses excessive pro-inflammatory cytokine responses through neural signal-mediated pathways and improves survival in lethal inflammation. <i>Brain, Behavior, and Immunity</i> , 2015, 44, 19-27.	4.1	64
33	Galantamine alleviates inflammation and insulin resistance in patients with metabolic syndrome in a randomized trial. <i>JCI Insight</i> , 2017, 2, .	5.0	64
34	Characterization of inflammation and insulin resistance in high-fat diet-induced male C57BL/6J mouse model of obesity. <i>Animal Models and Experimental Medicine</i> , 2019, 2, 252-258.	3.3	58
35	Cholinergic Control of Inflammation, Metabolic Dysfunction, and Cognitive Impairment in Obesity-Associated Disorders: Mechanisms and Novel Therapeutic Opportunities. <i>Frontiers in Neuroscience</i> , 2019, 13, 263.	2.8	58
36	Investigational treatment of rheumatoid arthritis with a vibrotactile device applied to the external ear. <i>Bioelectronic Medicine</i> , 2019, 5, 4.	2.3	55

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37	Forebrain Cholinergic Signaling Regulates Innate Immune Responses and Inflammation. <i>Frontiers in Immunology</i> , 2019, 10, 585.	4.8	55
38	Phenolic Hydrazones Are Potent Inhibitors of Macrophage Migration Inhibitory Factor Proinflammatory Activity and Survival Improving Agents in Sepsis. <i>Journal of Medicinal Chemistry</i> , 2007, 50, 1993-1997.	6.4	54
39	Bioelectronic Medicine: From Preclinical Studies on the Inflammatory Reflex to New Approaches in Disease Diagnosis and Treatment. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2020, 10, a034140.	6.2	54
40	Cytotoxicity, DNA binding and localisation of novel bis-naphthalimidopropyl polyamine derivatives. <i>Chemico-Biological Interactions</i> , 2001, 137, 15-24.	4.0	52
41	Cardiopulmonary Arrest and Resuscitation Disrupts Cholinergic Anti-Inflammatory Processes: A Role for Cholinergic $\alpha 7$ Nicotinic Receptors. <i>Journal of Neuroscience</i> , 2011, 31, 3446-3452.	3.6	52
42	Adenylyl Cyclase 6 Mediates Inhibition of TNF in the Inflammatory Reflex. <i>Frontiers in Immunology</i> , 2018, 9, 2648.	4.8	49
43	Alternative Chemical Modifications Reverse the Binding Orientation of a Pharmacophore Scaffold in the Active Site of Macrophage Migration Inhibitory Factor. <i>Journal of Biological Chemistry</i> , 2007, 282, 23089-23095.	3.4	47
44	High-Mobility Group Box 1 Mediates Persistent Splenocyte Priming in Sepsis Survivors. <i>Shock</i> , 2013, 40, 492-495.	2.1	43
45	Obesity Paradox, Obesity Orthodox, and the Metabolic Syndrome: An Approach to Unity. <i>Molecular Medicine</i> , 2016, 22, 873-885.	4.4	43
46	Spinal p38 MAP kinase regulates peripheral cholinergic outflow. <i>Arthritis and Rheumatism</i> , 2008, 58, 2919-2921.	6.7	42
47	VAGUS NERVE STIMULATION REGULATES HEMOSTASIS IN SWINE. <i>Shock</i> , 2010, 33, 608-613.	2.1	42
48	Identification of Pigment Epithelium-Derived Factor as an Adipocyte-Derived Inflammatory Factor. <i>Molecular Medicine</i> , 2012, 18, 1161-1168.	4.4	42
49	Thyroxine is a potential endogenous antagonist of macrophage migration inhibitory factor (MIF) activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 8224-8227.	7.1	41
50	Bioelectronic medicine: updates, challenges and paths forward. <i>Bioelectronic Medicine</i> , 2019, 5, 1.	2.3	41
51	Cholinergic modulation of inflammation. <i>International Journal of Clinical and Experimental Medicine</i> , 2008, 1, 203-12.	1.3	41
52	An Effective Method for Acute Vagus Nerve Stimulation in Experimental Inflammation. <i>Frontiers in Neuroscience</i> , 2019, 13, 877.	2.8	40
53	Vagus nerve cholinergic circuitry to the liver and the gastrointestinal tract in the neuroimmune communicome. <i>American Journal of Physiology - Renal Physiology</i> , 2018, 315, G651-G658.	3.4	39
54	The synthesis and in vitro cytotoxic studies of novel bis-naphthalimidopropyl polyamine derivatives. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2000, 10, 1609-1612.	2.2	35

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55	HMGB1 released from nociceptors mediates inflammation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	34
56	Nicotinic Acetylcholine Receptor-Mediated Protection of the Rat Heart Exposed to Ischemia Reperfusion. Molecular Medicine, 2017, 23, 120-133.	4.4	32
57	The $\hat{\pm}7$ nicotinic acetylcholine receptor agonist, GTS-21, attenuates hyperoxia-induced acute inflammatory lung injury by alleviating the accumulation of HMGB1 in the airways and the circulation. Molecular Medicine, 2020, 26, 63.	4.4	32
58	Galantamine Attenuates Type 1 Diabetes and Inhibits Anti-Insulin Antibodies in Nonobese Diabetic Mice. Molecular Medicine, 2015, 21, 702-708.	4.4	29
59	Activation of the cholinergic anti-inflammatory pathway by GTS-21 attenuates cisplatin-induced acute kidney injury in mice. PLoS ONE, 2017, 12, e0188797.	2.5	28
60	Treating disorders across the lifespan by modulating cholinergic signaling with galantamine. Journal of Neurochemistry, 2021, 158, 1359-1380.	3.9	26
61	Auricular neural stimulation as a new non-invasive treatment for opioid detoxification. Bioelectronic Medicine, 2020, 6, 7.	2.3	24
62	The Cholinergic Drug Galantamine Alleviates Oxidative Stress Alongside Anti-inflammatory and Cardio-Metabolic Effects in Subjects With the Metabolic Syndrome in a Randomized Trial. Frontiers in Immunology, 2021, 12, 613979.	4.8	24
63	The evolving obesity challenge: targeting the vagus nerve and the inflammatory reflex in the response. , 2021, 222, 107794.		23
64	Peripheral nerve stimulation and immunity: the expanding opportunities for providing mechanistic insight and therapeutic intervention. International Immunology, 2022, 34, 107-118.	4.0	22
65	A fully implantable wireless bidirectional neuromodulation system for mice. Biosensors and Bioelectronics, 2022, 200, 113886.	10.1	21
66	Imbalance in Seminal Fluid MIF Indicates Male Infertility. Molecular Medicine, 2007, 13, 199-202.	4.4	19
67	Reuniting overnutrition and undernutrition, macronutrients, and micronutrients. Diabetes/Metabolism Research and Reviews, 2019, 35, e3072.	4.0	19
68	Editorial: Neuro-Immune Interactions in Inflammation and Autoimmunity. Frontiers in Immunology, 2018, 9, 772.	4.8	15
69	Collateral benefits of studying the vagus nerve in bioelectronic medicine. Bioelectronic Medicine, 2019, 5, 5.	2.3	14
70	Buprenorphine Markedly Elevates a Panel of Surrogate Markers in a Murine Model of Sepsis. Shock, 2019, 52, 550-553.	2.1	14
71	Famotidine activates the vagus nerve inflammatory reflex to attenuate cytokine storm. Molecular Medicine, 2022, 28, 57.	4.4	13
72	The Cholinergic Drug Pyridostigmine Alleviates Inflammation During LPS-Induced Acute Respiratory Distress Syndrome. Frontiers in Pharmacology, 2021, 12, 624895.	3.5	12

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73	The synthesis and in vitro cytotoxic studies of novel oxa-spermidine derivatives and homologues. Bioorganic and Medicinal Chemistry Letters, 2000, 10, 1265-1267.	2.2	10
74	The Neuroimmune Communicatome in Inflammation. , 0, , 1485-1516.		10
75	Novel oxa-spermine homologues: synthesis and cytotoxic properties. Bioorganic and Medicinal Chemistry, 2002, 10, 691-697.	3.0	7
76	Emetine Di-HCl Attenuates Type 1 Diabetes Mellitus in Mice. Molecular Medicine, 2016, 22, 585-596.	4.4	5
77	Cholinergic stimulation with pyridostigmine modulates a heart-spleen axis after acute myocardial infarction in spontaneous hypertensive rats. Scientific Reports, 2021, 11, 9563.	3.3	5
78	The Fourth Bioelectronic Medicine Summit –Technology Targeting Molecular Mechanisms– current progress, challenges, and charting the future. Bioelectronic Medicine, 2021, 7, 7.	2.3	5
79	Exploring the vagus nerve and the inflammatory reflex for therapeutic benefit in chronic spinal cord injury. Current Opinion in Neurology, 2022, Publish Ahead of Print, .	3.6	3
80	Infection and Sepsis. NeuroImmune Biology, 2010, , 309-320.	0.2	2
81	318 Central Muscarinic 1 Acetylcholine Receptor Activation Reduces the Severity of Experimental Colitis via the Splenic Nerve and the Spleen. Gastroenterology, 2013, 144, S-66.	1.3	1
82	GALANTAMINE IMPROVES SURVIVAL IN LETHAL ENDOTOXEMIA. Shock, 2006, 25, 65-66.	2.1	0
83	876 Pharmacological Central Activation of the Vagus Nerve Reduces Experimental Colitis. Gastroenterology, 2012, 142, S-151-S-152.	1.3	0
84	Central muscarinic 1 acetylcholine receptor activation reduces the severity of experimental colitis via the vagus nerve and the splenic dendritic cells. Autonomic Neuroscience: Basic and Clinical, 2013, 177, 316-317.	2.8	0
85	Rodent Models of Diabetes. , 2017, , 215-238.		0
86	Selective Optogenetic Activation of the Inflammatory Reflex Using Multisite Surgical Approach. Journal of the American College of Surgeons, 2018, 227, S82.	0.5	0
87	Neuroinflammation in Murine Endotoxemia: A Dual –Tracer MicroPET Evaluation. FASEB Journal, 2021, 35, .	0.5	0
88	IL-1 β -Induced Thermoregulation and Vagus Nerve Activity is Mediated by Transient Receptor Potential Ankyrin 1. FASEB Journal, 2021, 35, .	0.5	0
89	Splenectomy inactivates the cholinergic antiinflammatory pathway during lethal endotoxemia and polymicrobial sepsis. Journal of Cell Biology, 2006, 174, i1-i1.	5.2	0
90	The M1 muscarinic acetylcholine receptor agonist xanomeline suppresses lethal inflammation. FASEB Journal, 2009, 23, 1003.5.	0.5	0

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91	Galantamine Treatment as a Novel Therapeutic Approach in Alleviating Obesity and Obesity-Related Complications in High-Fat Diet-Fed Mice. American Journal of Gastroenterology, 2010, 105, S107.	0.4	0
92	Rodent Models of Diabetes. , 2016, , 1-25.		0
93	Optogenetic Stimulation of Cholinergic Neurons in the Brainstem Induces Splenic Nerve Activity and Attenuates Systemic Inflammation. FASEB Journal, 2019, 33, 740.5.	0.5	0
94	The Acetylcholinesterase Inhibitor Galantamine Ameliorates Oxidative Stress in Subjects with the Metabolic Syndrome. FASEB Journal, 2020, 34, 1-1.	0.5	0
95	The Cholinergic Drug Galantamine Ameliorates Acute Respiratory Distress Syndrome in Mice. FASEB Journal, 2022, 36, .	0.5	0