Pedro L Oliveira

List of Publications by Year
in descending order

123 papers	6,587 citations	50276 46 h-index	74163 75 g-index
131 all docs	131 docs citations	131 times ranked	5401 citing authors

#	Article	IF	Citations
1	Characterization of Heme as Activator of Toll-like Receptor 4. Journal of Biological Chemistry, 2007, 282, 20221-20229.	3.4	479
2	Adaptations against heme toxicity in blood-feeding arthropods. Insect Biochemistry and Molecular Biology, 2006, 36, 322-335.	2.7	336
3	Genome of <i>Rhodnius prolixus</i> , an insect vector of Chagas disease, reveals unique adaptations to hematophagy and parasite infection. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14936-14941.	7.1	329
4	Blood Meal-Derived Heme Decreases ROS Levels in the Midgut of Aedes aegypti and Allows Proliferation of Intestinal Microbiota. PLoS Pathogens, 2011, 7, e1001320.	4.7	272
5	Neutrophil activation by heme: implications for inflammatory processes. Blood, 2002, 99, 4160-4165.	1.4	258
6	An Insight into the Transcriptome of the Digestive Tract of the Bloodsucking Bug, Rhodnius prolixus. PLoS Neglected Tropical Diseases, 2014, 8, e2594.	3.0	184
7	Tracing heme in a living cell: hemoglobin degradation and heme traffic in digest cells of the cattle tick Boophilus microplus. Journal of Experimental Biology, 2005, 208, 3093-3101.	1.7	128
8	Haem detoxification by an insect. Nature, 1999, 400, 517-518.	27.8	120
9	Haemozoin in Schistosoma mansoni. Molecular and Biochemical Parasitology, 2000, 111, 217-221.	1.1	115
10	Structural and morphological characterization of hemozoin produced bySchistosoma mansoniandRhodnius prolixus. FEBS Letters, 2005, 579, 6010-6016.	2.8	112
11	A Coxiella mutualist symbiont is essential to the development of Rhipicephalus microplus. Scientific Reports, 2017, 7, 17554.	3.3	110
12	A new intracellular pathway of haem detoxification in the midgut of the cattle tick Boophilus microplus: aggregation inside a specialized organelle, the hemosome. Journal of Experimental Biology, 2003, 206, 1707-1715.	1.7	107
13	A missing metabolic pathway in the cattle tick Boophilus microplus. Current Biology, 1999, 9, 703-706.	3.9	103
14	Aedes aegypti peritrophic matrix and its interaction with heme during blood digestion. Insect Biochemistry and Molecular Biology, 2002, 32, 517-523.	2.7	101
15	HeLp, a Heme Lipoprotein from the Hemolymph of the Cattle Tick,Boophilus microplus. Journal of Biological Chemistry, 2000, 275, 36584-36589.	3.4	97
16	Antioxidant Role of Rhodnius prolixus Heme-binding Protein. Journal of Biological Chemistry, 1995, 270, 10893-10896.	3.4	94
17	Hydrogen peroxide detoxification in the midgut of the blood-sucking insect,Rhodnius prolixus. Archives of Insect Biochemistry and Physiology, 2001, 48, 63-71.	1.5	93
18	Identification of theAedesaegyptiPeritrophic Matrix Protein AeIMUCI as a Heme-Binding Proteinâ€. Biochemistry, 2006, 45, 9540-9549.	2.5	92

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19	Genetically Modifying the Insect Gut Microbiota to Control Chagas Disease Vectors through Systemic RNAi. PLoS Neglected Tropical Diseases, 2015, 9, e0003358.	3.0	91
20	A heme-degradation pathway in a blood-sucking insect. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 8030-8035.	7.1	88
21	A Heme-binding Protein from Hemolymph and Oocytes of the Blood-sucking Insect, Rhodnius prolixus. Journal of Biological Chemistry, 1995, 270, 10897-10901.	3.4	82
22	Production of Reactive Oxygen Species by Hemocytes from the Cattle Tick Boophilus microplus. Experimental Parasitology, 2001, 99, 66-72.	1.2	79
23	The Dose Makes the Poison: Nutritional Overload Determines the Life Traits of Blood-Feeding Arthropods. Trends in Parasitology, 2017, 33, 633-644.	3.3	79
24	Inhibition of Heme Aggregation by Chloroquine ReducesSchistosoma mansoniInfection. Journal of Infectious Diseases, 2004, 190, 843-852.	4.0	72
25	Haemozoin formation in the midgut of the blood-sucking insectRhodnius prolixus. FEBS Letters, 2000, 477, 95-98.	2.8	71
26	Microbiota activates IMD pathway and limits Sindbis infection in Aedes aegypti. Parasites and Vectors, 2017, 10, 103.	2.5	71
27	Uptake of yolk proteins in Rhodnius prolixus. Journal of Insect Physiology, 1986, 32, 859-866.	2.0	69
28	Isolation of an aspartic proteinase precursor from the egg of a hard tick, Boophilus microplus. Parasitology, 1998, 116, 525-532.	1.5	69
29	The Role of Reactive Oxygen Species in Anopheles aquasalis Response to Plasmodium vivax Infection. PLoS ONE, 2013, 8, e57014.	2.5	68
30	Immunization of bovines with an aspartic proteinase precursor isolated from Boophilus microplus eggs. Veterinary Immunology and Immunopathology, 1998, 66, 331-341.	1.2	66
31	A Heme-binding Aspartic Proteinase from the Eggs of the Hard TickBoophilus microplus. Journal of Biological Chemistry, 2000, 275, 28659-28665.	3.4	66
32	Heme requirement and intracellular trafficking in Trypanosoma cruzi epimastigotes. Biochemical and Biophysical Research Communications, 2007, 355, 16-22.	2.1	64
33	Lipophorin and oÃ¶genesis in Rhodnius prolixus: Transfer of phospholipids. Journal of Insect Physiology, 1989, 35, 19-27.	2.0	62
34	Urate Protects a Blood-Sucking Insect Against Hemin-Induced Oxidative Stress. Free Radical Biology and Medicine, 1997, 22, 209-214.	2.9	61
35	Tyrosine Detoxification Is an Essential Trait in the Life History of Blood-Feeding Arthropods. Current Biology, 2016, 26, 2188-2193.	3.9	61
36	Monitoring of the Parasite Load in the Digestive Tract of Rhodnius prolixus by Combined qPCR Analysis and Imaging Techniques Provides New Insights into the Trypanosome Life Cycle. PLoS Neglected Tropical Diseases, 2015, 9, e0004186.	3.0	60

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37	Heme Signaling Impacts Global Gene Expression, Immunity and Dengue Virus Infectivity in Aedes aegypti. PLoS ONE, 2015, 10, e0135985.	2.5	60
38	Characterization of vitellin and vitellogenin from Rhodnius prolixus. Insect Biochemistry, 1985, 15, 543-550.	1.8	58
39	Catalase protects Aedes aegypti from oxidative stress and increases midgut infection prevalence of Dengue but not Zika. PLoS Neglected Tropical Diseases, 2017, 11, e0005525.	3.0	58
40	Multi-antigenic vaccine against the cattle tick Rhipicephalus (Boophilus) microplus: A field evaluation. Vaccine, 2012, 30, 6912-6917.	3.8	56
41	OKB, a novel family of brain-gut neuropeptides from insects. Insect Biochemistry and Molecular Biology, 2012, 42, 466-473.	2.7	56
42	Regulation of midgut cell proliferation impacts Aedes aegypti susceptibility to dengue virus. PLoS Neglected Tropical Diseases, 2018, 12, e0006498.	3.0	53
43	The Antioxidant Role of Xanthurenic Acid in the Aedes aegypti Midgut during Digestion of a Blood Meal. PLoS ONE, 2012, 7, e38349.	2.5	51
44	On the pro-oxidant effects of haemozoin. FEBS Letters, 2002, 512, 139-144.	2.8	50
45	ATP Binding Cassette Transporter Mediates Both Heme and Pesticide Detoxification in Tick Midgut Cells. PLoS ONE, 2015, 10, e0134779.	2.5	50
46	Vaccination of bovines with recombinant Boophilus Yolk pro-Cathepsin. Veterinary Immunology and Immunopathology, 2006, 114, 341-345.	1.2	49
47	Oxidative stress impairs heme detoxification in the midgut of the cattle tick, Rhipicephalus (Boophilus) microplus. Molecular and Biochemical Parasitology, 2007, 151, 81-88.	1.1	49
48	Transcriptome and gene expression profile of ovarian follicle tissue of the triatomine bug Rhodnius prolixus. Insect Biochemistry and Molecular Biology, 2011, 41, 823-831.	2.7	49
49	Extracellular lipid droplets promote hemozoin crystallization in the gut of the blood flukeSchistosoma mansoni. FEBS Letters, 2007, 581, 1742-1750.	2.8	48
50	On the Fate of Extracellular Hemoglobin and Heme in Brain. Journal of Cerebral Blood Flow and Metabolism, 2009, 29, 1109-1120.	4.3	48
51	Proteolytic activity of Boophilus microplus Yolk pro-Cathepsin D (BYC) is coincident with cortical acidification during embryogenesis. Insect Biochemistry and Molecular Biology, 2004, 34, 443-449.	2.7	46
52	Rhipicephalus (Boophilus) microplus embryo proteins as target for tick vaccine. Veterinary Immunology and Immunopathology, 2012, 148, 149-156.	1.2	40
53	Lipophorin from Rhodnius prolixus: Purification and partial characterization. Insect Biochemistry, 1989, 19, 153-161.	1.8	38
54	Identification of yolk platelet-associated hydrolases in the oocytes ofRhodnius prolixus. Archives of Insect Biochemistry and Physiology, 1992, 21, 253-262.	1.5	38

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55	A comparative study of patenting activity in U.S. and Brazilian scientific institutions. Scientometrics, 2004, 61, 323-338.	3.0	38
56	The redox-sensing gene Nrf2 affects intestinal homeostasis, insecticide resistance, and Zika virus susceptibility in the mosquito Aedes aegypti. Journal of Biological Chemistry, 2018, 293, 9053-9063.	3.4	38
57	Uptake ofRhodnius heme-binding protein (RHBP) by the ovary ofRhodnius prolixus. Archives of Insect Biochemistry and Physiology, 1998, 39, 133-143.	1.5	37
58	Vampires, Pasteur and reactive oxygen species. FEBS Letters, 2002, 525, 3-6.	2.8	37
59	An extraovarian aspartic protease accumulated in tick oocytes with vitellin-degradation activity. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2008, 151, 392-399.	1.6	37
60	Antioxidant pathways are up-regulated during biological nitrogen fixation to prevent ROS-induced nitrogenase inhibition in Gluconacetobacter diazotrophicus. Archives of Microbiology, 2010, 192, 835-841.	2.2	37
61	Rhodnius prolixus: Identification of missing components of the IMD immune signaling pathway and functional characterization of its role in eliminating bacteria. PLoS ONE, 2019, 14, e0214794.	2.5	37
62	Blood-Feeding Induces Reversible Functional Changes in Flight Muscle Mitochondria of Aedes aegypti Mosquito. PLoS ONE, 2009, 4, e7854.	2.5	36
63	Mitochondrial Reactive Oxygen Species Modulate Mosquito Susceptibility to Plasmodium Infection. PLoS ONE, 2012, 7, e41083.	2.5	35
64	The use of a chemically defined artificial diet as a tool to study Aedes aegypti physiology. Journal of Insect Physiology, 2015, 83, 1-7.	2.0	35
65	HeLp, a heme-transporting lipoprotein with an antioxidant role. Insect Biochemistry and Molecular Biology, 2004, 34, 81-87.	2.7	34
66	Ovarian Dual Oxidase (Duox) Activity Is Essential for Insect Eggshell Hardening and Waterproofing. Journal of Biological Chemistry, 2013, 288, 35058-35067.	3.4	34
67	Changes in salivary nitrophorin profile during the life cycle of the blood-sucking bug Rhodnius prolixus. Insect Biochemistry and Molecular Biology, 2003, 33, 23-28.	2.7	33
68	Biglutaminyl-Biliverdin IX Alpha as a Heme Degradation Product in the Dengue Fever Insect-VectorAedes aegyptiâ€. Biochemistry, 2007, 46, 6822-6829.	2.5	32
69	Silencing of Maternal Heme-binding Protein Causes Embryonic Mitochondrial Dysfunction and Impairs Embryogenesis in the Blood Sucking Insect Rhodnius prolixus. Journal of Biological Chemistry, 2013, 288, 29323-29332.	3.4	31
70	Transcriptomic analyses uncover emerging roles of mucins, lysosome/secretory addressing and detoxification pathways in insect midguts. Current Opinion in Insect Science, 2018, 29, 34-40.	4.4	30
71	Heme biosynthesis and oogenesis in the blood-sucking bug, Rhodnius prolixus. Insect Biochemistry and Molecular Biology, 2001, 31, 359-364.	2.7	28
72	Developmental roles of tyrosine metabolism enzymes in the blood-sucking insect <i>Rhodnius prolixus</i>. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20162607.	2.6	28

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73	DOPA decarboxylase is essential for cuticle tanning in Rhodnius prolixus (Hemiptera: Reduviidae), affecting ecdysis, survival and reproduction. Insect Biochemistry and Molecular Biology, 2019, 108, 24-31.	2.7	28
74	On the biosynthesis of Rhodnius prolixus heme-binding protein. Insect Biochemistry and Molecular Biology, 2002, 32, 1533-1541.	2.7	26
75	Immune-related redox metabolism of embryonic cells of the tick Rhipicephalus microplus (BME26) in response to infection with Anaplasma marginale. Parasites and Vectors, 2017, 10, 613.	2.5	26
76	Energy metabolism affects susceptibility of Anopheles gambiae mosquitoes to Plasmodium infection. Insect Biochemistry and Molecular Biology, 2011, 41, 349-355.	2.7	25
77	Non-canonical transcriptional regulation of heme oxygenase in Aedes aegypti. Scientific Reports, 2019, 9, 13726.	3.3	24
78	Perimicrovillar membranes promote hemozoin formation into Rhodnius prolixus midgut. Insect Biochemistry and Molecular Biology, 2007, 37, 523-531.	2.7	23
79	On the physico-chemical and physiological requirements of hemozoin formation promoted by perimicrovillar membranes in Rhodnius prolixus midgut. Insect Biochemistry and Molecular Biology, 2010, 40, 284-292.	2.7	23
80	A physiologic overview of the organ-specific transcriptome of the cattle tick Rhipicephalus microplus. Scientific Reports, 2020, 10, 18296.	3.3	23
81	Experimental Infection of Rhodnius prolixus (Hemiptera, Triatominae) with Mycobacterium leprae Indicates Potential for Leprosy Transmission. PLoS ONE, 2016, 11, e0156037.	2.5	23
82	BYC, an atypical aspartic endopeptidase from Rhipicephalus (Boophilus) microplus eggs. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2008, 149, 599-607.	1.6	22
83	Heme-Oxygenases during Erythropoiesis in K562 and Human Bone Marrow Cells. PLoS ONE, 2011, 6, e21358.	2.5	21
84	Urate Synthesis in the Blood-sucking Insect Rhodnius prolixus. Journal of Biological Chemistry, 1999, 274, 9673-9676.	3.4	20
85	Heme crystallization in the midgut of triatomine insects. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2007, 146, 168-174.	2.6	20
86	Amino acids trigger down-regulation of superoxide via TORC pathway in the midgut of Rhodnius prolixus. Bioscience Reports, 2016, 36, .	2.4	18
87	Silencing of Iron and Heme-Related Genes Revealed a Paramount Role of Iron in the Physiology of the Hematophagous Vector Rhodnius prolixus. Frontiers in Genetics, 2018, 9, 19.	2.3	18
88	Haem Biology in Metazoan Parasites â€" â€˜The Bright Side of Haemâ€™. Trends in Parasitology, 2019, 35, 213-225.	3.3	17
89	The Brazilian investment in science and technology. Brazilian Journal of Medical and Biological Research, 2001, 34, 1521-1530.	1.5	16
90	Rhodnius heme-binding protein (RHBP) is a heme source for embryonic development in the blood-sucking bug Rhodnius prolixus (Hemiptera, Reduviidae). Insect Biochemistry and Molecular Biology, 2002, 32, 361-367.	2.7	16

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91	Polyphenol-Rich Diets Exacerbate AMPK-Mediated Autophagy, Decreasing Proliferation of Mosquito Midgut Microbiota, and Extending Vector Lifespan. PLoS Neglected Tropical Diseases, 2016, 10, e0005034.	3.0	15
92	Identification of a selenium-dependent glutathione peroxidase in the blood-sucking insect Rhodnius prolixus. Insect Biochemistry and Molecular Biology, 2016, 69, 105-114.	2.7	15
93	Beyond the eye: Kynurenine pathway impairment causes midgut homeostasis dysfunction and survival and reproductive costs in blood-feeding mosquitoes. Insect Biochemistry and Molecular Biology, 2022, 142, 103720.	2.7	15
94	Purification and antigenicity of two recombinant forms of Boophilus microplus yolk pro-cathepsin expressed in inclusion bodies. Protein Expression and Purification, 2006, 45, 107-114.	1.3	14
95	Evolutionary origin and function of NOX4-art, an arthropod specific NADPH oxidase. BMC Evolutionary Biology, 2017, 17, 92.	3.2	14
96	In vivouptake of a haem analogue Zn protoporphyrin IX by the human malaria parasiteP. falciparum-infected red blood cells. Cell Biology International, 2010, 34, 859-865.	3.0	13
97	Allosteric regulation of the Plasmodium falciparum cysteine protease falcipain-2 by heme. Archives of Biochemistry and Biophysics, 2015, 573, 92-99.	3.0	13
98	Extracellular glutathione peroxidase from the blood-sucking bug,Rhodnius prolixus. , 1999, 41, 171-177.		12
99	Repurposing the orphan drug nitisinone to control the transmission of African trypanosomiasis. PLoS Biology, 2021, 19, e3000796.	5.6	12
100	Cyclic nucleotide-independent phosphorylation of Vitellin by casein kinase II purified from Rhodnius prolixus oocytes. Insect Biochemistry and Molecular Biology, 2002, 32, 847-857.	2.7	11
101	Rhodnius prolixus uses the peptidoglycan recognition receptor rpPGRP-LC/LA to detect Gram-negative bacteria and activate the IMD pathway. Current Research in Insect Science, 2021, 1, 100006.	1.7	11
102	Trypanosoma brucei brucei: Effects of ferrous iron and heme on ecto-nucleoside triphosphate diphosphohydrolase activity. Experimental Parasitology, 2009, 121, 137-143.	1.2	10
103	Coxiella Endosymbiont of Rhipicephalus microplus Modulates Tick Physiology With a Major Impact in Blood Feeding Capacity. Frontiers in Microbiology, 2022, 13, 868575.	3.5	10
104	Protein phosphorylation in Rhodnius prolixus oocytes: Identification of a type II casein kinase. Insect Biochemistry and Molecular Biology, 1993, 23, 815-823.	2.7	9
105	â€œUrate and NOX5 Control Blood Digestion in the Hematophagous Insect Rhodnius prolixusâ€. Frontiers in Physiology, 2021, 12, 633093.	2.8	9
106	On the use of inhibitors of 4â€hydroxyphenylpyruvate dioxygenase as a vectorâ€selective insecticide in the control of mosquitoes. Pest Management Science, 2022, 78, 692-702.	3.4	8
107	Sn-protoporphyrin inhibits both heme degradation and hemozoin formation in Rhodnius prolixus midgut. Insect Biochemistry and Molecular Biology, 2010, 40, 855-860.	2.7	7
108	Functional studies of TcRjl, a novel GTPase of Trypanosoma cruzi , reveals phenotypes related with MAPK activation during parasite differentiation and after heterologous expression in Drosophila model system. Biochemical and Biophysical Research Communications, 2015, 467, 115-120.	2.1	7

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109	An insight into the functional role of antioxidant and detoxification enzymes in adult Rhipicephalus microplus female ticks. Parasitology International, 2021, 81, 102274.	1.3	7
110	The roles of haemolymphatic lipoproteins in the oogenesis of Rhodnius prolixus. Memorias Do Instituto Oswaldo Cruz, 1987, 82, 89-92.	1.6	6
111	Role of Phospholipids in the Protein Stability of an Insect Lipoprotein, Lipophorin from Rhodnius prolixus. Biochemistry, 1997, 36, 11216-11222.	2.5	6
112	Heparan sulfate glycosaminoglycan expression in the intestinal tract and ovary of fully engorged adult females of the cattle tick Boophilus microplus and in their laid eggs. Molecular and Biochemical Parasitology, 2003, 130, 163-166.	1.1	6
113	Non-immune Traits Triggered by Blood Intake Impact Vectorial Competence. Frontiers in Physiology, 2021, 12, 638033.	2.8	6
114	The relationship between oxidant levels and gut physiology in a litter-feeding termite. Scientific Reports, 2019, 9, 670.	3.3	5
115	Foreword. Memorias Do Instituto Oswaldo Cruz, 2013, 108, 1-1.	1.6	5
116	Atypical strategies for cuticle pigmentation in the blood-feeding hemipteran <i>Rhodnius prolixus</i>. Genetics, 2022, 221, .	2.9	5
117	Blood Digestion in Triatomine Insects. True Bugs (Heteroptera) of the Neotropics, 2021, , 265-284.	1.2	3
118	Uptake of Rhodnius hemeâ€binding protein (RHBP) by the ovary of Rhodnius prolixus. Archives of Insect Biochemistry and Physiology, 1998, 39, 133-143.	1.5	2
119	Crystallization and preliminary X-ray study of haem-binding protein from the bloodsucking insectRhodnius prolixus. Acta Crystallographica Section D: Biological Crystallography, 2001, 57, 860-861.	2.5	1
120	Crystallization and preliminary X-ray diffraction analysis of HeLp, a heme lipoprotein from the hemolymph of the cattle tickBoophilus microplus. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 1639-1640.	2.5	1
121	Tick Heme-Binding Aspartic Proteinase. , 2013, , 108-109.		0
122	Editorial overview: Molecular physiology: from omics data encyclopedia to physiology â€˜short storiesâ€™. Current Opinion in Insect Science, 2018, 29, vi-viii.	4.4	0
123	Tick heme-binding aspartic proteinase. , 2004, , 76-77.		0