JoaquÃn Castilla

List of Publications by Year in descending order

118 papers	7,194 citations	71102 41 h-index	58581 82 g-index
125 all docs	125 docs citations	125 times ranked	4795 citing authors

#	Article	IF	Citations
1	In Vitro Generation of Infectious Scrapie Prions. Cell, 2005, 121, 195-206.	28.9	724
2	Caspase-12 and endoplasmic reticulum stress mediate neurotoxicity of pathological prion protein. EMBO Journal, 2003, 22, 5435-5445.	7.8	355
3	Detection of prions in blood. Nature Medicine, 2005, 11, 982-985.	30.7	290
4	Ultra-efficient Replication of Infectious Prions by Automated Protein Misfolding Cyclic Amplification. Journal of Biological Chemistry, 2006, 281, 35245-35252.	3.4	282
5	Production of cattle lacking prion protein. Nature Biotechnology, 2007, 25, 132-138.	17.5	282
6	Amyloids, prions and the inherent infectious nature of misfolded protein aggregates. Trends in Biochemical Sciences, 2006, 31, 150-155.	7.5	241
7	Presymptomatic Detection of Prions in Blood. Science, 2006, 313, 92-94.	12.6	219
8	Detection of amyloid fibrils in Parkinsonâ€™s disease using plasmonic chirality. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3225-3230.	7.1	209
9	Prion Strain Mutation Determined by Prion Protein Conformational Compatibility and Primary Structure. Science, 2010, 328, 1154-1158.	12.6	201
10	The Disulfide Isomerase Grp58 Is a Protective Factor against Prion Neurotoxicity. Journal of Neuroscience, 2005, 25, 2793-2802.	3.6	190
11	Crossing the Species Barrier by PrPSc Replication In Vitro Generates Unique Infectious Prions. Cell, 2008, 134, 757-768.	28.9	179
12	Molecular Cross Talk between Misfolded Proteins in Animal Models of Alzheimer's and Prion Diseases. Journal of Neuroscience, 2010, 30, 4528-4535.	3.6	178
13	Cell-free propagation of prion strains. EMBO Journal, 2008, 27, 2557-2566.	7.8	164
14	De novo induction of amyloid-Î² deposition in vivo. Molecular Psychiatry, 2012, 17, 1347-1353.	7.9	163
15	Unfolded protein response transcription factor XBP-1 does not influence prion replication or pathogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 757-762.	7.1	141
16	Isolation and Characterization of a Proteinase K-Sensitive PrPScFractionâ€. Biochemistry, 2006, 45, 15710-15717.	2.5	134
17	Pre-symptomatic detection of prions by cyclic amplification of protein misfolding. FEBS Letters, 2005, 579, 638-642.	2.8	127
18	A molecular switch controls interspecies prion disease transmission in mice. Journal of Clinical Investigation, 2010, 120, 2590-2599.	8.2	124

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19	Early detection of PrP res in BSE-infected bovine PrP transgenic mice. Archives of Virology, 2003, 148, 677-691.	2.1	119
20	Amyloid Formation Modulates the Biological Activity of a Bacterial Protein. Journal of Biological Chemistry, 2005, 280, 26880-26885.	3.4	119
21	Accelerated High Fidelity Prion Amplification Within and Across Prion Species Barriers. PLoS Pathogens, 2008, 4, e1000139.	4.7	118
22	Protein Misfolding Cyclic Amplification for Diagnosis and Prion Propagation Studies. Methods in Enzymology, 2006, 412, 3-21.	1.0	117
23	The controversial protein-only hypothesis of prion propagation. Nature Medicine, 2004, 10, S63-S67.	30.7	91
24	Chronic Wasting Disease in Bank Voles: Characterisation of the Shortest Incubation Time Model for Prion Diseases. PLoS Pathogens, 2013, 9, e1003219.	4.7	88
25	In Vivo Generation of Neurotoxic Prion Protein: Role for Hsp70 in Accumulation of Misfolded Isoforms. PLoS Genetics, 2009, 5, e1000507.	3.5	76
26	Engineering passive immunity in transgenic mice secreting virus-neutralizing antibodies in milk. Nature Biotechnology, 1998, 16, 349-354.	17.5	74
27	Progression of prion infectivity in asymptomatic cattle after oral bovine spongiform encephalopathy challenge. Journal of General Virology, 2007, 88, 1379-1383.	2.9	74
28	Rabbits are not resistant to prion infection. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5080-5085.	7.1	72
29	Human prion protein sequence elements impede cross-species chronic wasting disease transmission. Journal of Clinical Investigation, 2015, 125, 1485-1496.	8.2	68
30	Prion Transmission Prevented by Modifying the Î²2-Î±2 Loop Structure of Host PrP^C. Journal of Neuroscience, 2014, 34, 1022-1027.	3.6	67
31	Ultra-Efficient PrPSc Amplification Highlights Potentialities and Pitfalls of PMCA Technology. PLoS Pathogens, 2011, 7, e1002370.	4.7	63
32	Sheep-Passaged Bovine Spongiform Encephalopathy Agent Exhibits Altered Pathobiological Properties in Bovine-PrP Transgenic Mice. Journal of Virology, 2007, 81, 835-843.	3.4	62
33	Transgenic Mice Expressing Porcine Prion Protein Resistant to Classical Scrapie but Susceptible to Sheep Bovine Spongiform Encephalopathy and Atypical Scrapie. Emerging Infectious Diseases, 2009, 15, 1214-1221.	4.3	61
34	Transgenic Fatal Familial Insomnia Mice Indicate Prion Infectivity-Independent Mechanisms of Pathogenesis and Phenotypic Expression of Disease. PLoS Pathogens, 2015, 11, e1004796.	4.7	61
35	Prionemia and Leukocyte-Platelet-Associated Infectivity in Sheep Transmissible Spongiform Encephalopathy Models. Journal of Virology, 2012, 86, 2056-2066.	3.4	60
36	Perturbation of Endoplasmic Reticulum Homeostasis Facilitates Prion Replication. Journal of Biological Chemistry, 2007, 282, 12725-12733.	3.4	57

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37	Subclinical Bovine Spongiform Encephalopathy Infection in Transgenic Mice Expressing Porcine Prion Protein. Journal of Neuroscience, 2004, 24, 5063-5069.	3.6	56
38	Cofactors influence the biological properties of infectious recombinant prions. Acta Neuropathologica, 2018, 135, 179-199.	7.7	56
39	Cyclic Amplification of Protein Misfolding and Aggregation. , 2005, 299, 053-066.		55
40	Transgenic Mice Secreting Coronavirus Neutralizing Antibodies into the Milk. Journal of Virology, 1998, 72, 3762-3772.	3.4	47
41	Elements Modulating the Prion Species Barrier and Its Passage Consequences. PLoS ONE, 2014, 9, e89722.	2.5	46
42	Prion replication without host adaptation during interspecies transmissions. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1141-1146.	7.1	45
43	Different Behavior toward Bovine Spongiform Encephalopathy Infection of Bovine Prion Protein Transgenic Mice with One Extra Repeat Octapeptide Insert Mutation. Journal of Neuroscience, 2004, 24, 2156-2164.	3.6	44
44	Molecular Mechanisms of Neurotoxicity of Pathological Prion Protein. Current Molecular Medicine, 2004, 4, 397-403.	1.3	42
45	Structure of the Î²2â€Î±2 loop and interspecies prion transmission. FASEB Journal, 2012, 26, 2868-2876.	0.5	41
46	Bovine Spongiform Encephalopathy Induces Misfolding of Alleged Prion-Resistant Species Cellular Prion Protein without Altering Its Pathobiological Features. Journal of Neuroscience, 2013, 33, 7778-7786.	3.6	39
47	Repurposing ciclopirox as a pharmacological chaperone in a model of congenital erythropoietic porphyria. Science Translational Medicine, 2018, 10, .	12.4	38
48	Transgenic mice expressing bovine PrP with a four extra repeat octapeptide insert mutation show a spontaneous, non-transmissible, neurodegenerative disease and an expedited course of BSE infection. FEBS Letters, 2005, 579, 6237-6246.	2.8	36
49	In vitro studies of the transmission barrier. Prion, 2009, 3, 220-223.	1.8	35
50	Vertical Transmission of Bovine Spongiform Encephalopathy Prions Evaluated in a Transgenic Mouse Model. Journal of Virology, 2005, 79, 8665-8668.	3.4	34
51	A cationic tetrapyrrole inhibits toxic activities of the cellular prion protein. Scientific Reports, 2016, 6, 23180.	3.3	34
52	Proteinase K enhanced immunoreactivity of the prion protein-specific monoclonal antibody 2A11. Neuroscience Research, 2004, 48, 75-83.	1.9	33
53	Coenzyme Q and protein/lipid oxidation in a BSE-infected transgenic mouse model. Free Radical Biology and Medicine, 2007, 42, 1723-1729.	2.9	33
54	Post-translational modifications in PrP expand the conformational diversity of prions in vivo. Scientific Reports, 2017, 7, 43295.	3.3	30

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55	Unraveling the key to the resistance of canids to prion diseases. PLoS Pathogens, 2017, 13, e1006716.	4.7	30
56	Network structure and transcriptomic vulnerability shape atrophy in frontotemporal dementia. Brain, 2023, 146, 321-336.	7.6	30
57	Naturally prion resistant mammals. Prion, 2012, 6, 425-429.	1.8	29
58	Development of a new largely scalable in vitro prion propagation method for the production of infectious recombinant prions for high resolution structural studies. PLoS Pathogens, 2019, 15, e1008117.	4.7	28
59	Genome Comparison of a Nonpathogenic Myxoma Virus Field Strain with Its Ancestor, the Virulent Lausanne Strain. Journal of Virology, 2009, 83, 2397-2403.	3.4	27
60	Recombinant Human Prion Protein Inhibits Prion Propagation in vitro. Scientific Reports, 2013, 3, 2911.	3.3	27
61	iPS Cell Cultures from a Gerstmann-StrÃussler-Scheinker Patient with the Y218N PRNP Mutation Recapitulate tau Pathology. Molecular Neurobiology, 2018, 55, 3033-3048.	4.0	27
62	Dogs are resistant to prion infection, due to the presence of aspartic or glutamic acid at position 163 of their prion protein. FASEB Journal, 2020, 34, 3969-3982.	0.5	27
63	Interference of coronavirus infection by expression of immunoglobulin G (IgG) or IgA virus-neutralizing antibodies. Journal of Virology, 1997, 71, 5251-5258.	3.4	26
64	Detection of PrPres in Genetically Susceptible Fetuses from Sheep with Natural Scrapie. PLoS ONE, 2011, 6, e27525.	2.5	24
65	Transgenic Mouse Bioassay: Evidence That Rabbits Are Susceptible to a Variety of Prion Isolates. PLoS Pathogens, 2015, 11, e1004977.	4.7	24
66	Prion-like disorders and Transmissible Spongiform Encephalopathies: An overview of the mechanistic features that are shared by the various disease-related misfolded proteins. Biochemical and Biophysical Research Communications, 2017, 483, 1125-1136.	2.1	24
67	Detection of chronic wasting disease in mule and white-tailed deer by RT-QuIC analysis of outer ear. Scientific Reports, 2021, 11, 7702.	3.3	24
68	Recombinant PrPSc shares structural features with brain-derived PrPSc: Insights from limited proteolysis. PLoS Pathogens, 2018, 14, e1006797.	4.7	24
69	Insights into the Bidirectional Properties of the Sheepâ€“Deer Prion Transmission Barrier. Molecular Neurobiology, 2019, 56, 5287-5303.	4.0	23
70	Reduction of prion infectivity in packed red blood cells. Biochemical and Biophysical Research Communications, 2008, 377, 373-378.	2.1	21
71	Infectivity versus Seeding in Neurodegenerative Diseases Sharing a Prion-Like Mechanism. International Journal of Cell Biology, 2013, 2013, 1-9.	2.5	20
72	In Vitro Approach To Identify Key Amino Acids in Low Susceptibility of Rabbit Prion Protein to Misfolding. Journal of Virology, 2017, 91, .	3.4	19

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73	An antipsychotic drug exerts anti-prion effects by altering the localization of the cellular prion protein. PLoS ONE, 2017, 12, e0182589.	2.5	19
74	Reduced susceptibility to bovine spongiform encephalopathy prions in transgenic mice expressing a bovine PrP with five octapeptide repeats. Journal of General Virology, 2007, 88, 1842-1849.	2.9	18
75	Spontaneous Generation of Infectious Prion Disease in Transgenic Mice. Emerging Infectious Diseases, 2013, 19, 1938-1947.	4.3	18
76	An Amino Acid Substitution Found in Animals with Low Susceptibility to Prion Diseases Confers a Protective Dominant-Negative Effect in Prion-Infected Transgenic Mice. Molecular Neurobiology, 2018, 55, 6182-6192.	4.0	15
77	Generation of a new infectious recombinant prion: a model to understand Gerstmannâ€“StrÃusslerâ€“Scheinker syndrome. Scientific Reports, 2017, 7, 9584.	3.3	14
78	Evaluation of the Influence of Astrocytes on In Vitro Bloodâ€“Brain Barrier Models. ATLA Alternatives To Laboratory Animals, 2020, 48, 184-200.	1.0	14
79	A Single Amino Acid Substitution, Found in Mammals with Low Susceptibility to Prion Diseases, Delays Propagation of Two Prion Strains in Highly Susceptible Transgenic Mouse Models. Molecular Neurobiology, 2019, 56, 6501-6511.	4.0	13
80	Prion-Associated Neurodegeneration Causes Both Endoplasmic Reticulum Stress and Proteasome Impairment in a Murine Model of Spontaneous Disease. International Journal of Molecular Sciences, 2021, 22, 465.	4.1	11
81	Characterization of mesenchymal stem cells in sheep naturally infected with scrapie. Journal of General Virology, 2015, 96, 3715-3726.	2.9	11
82	Blood Î²-Synuclein and Neurofilament Light Chain During the Course of Prion Disease. Neurology, 2022, , 10.1212/WNL.0000000000200002.	1.1	11
83	Animal models for prion-like diseases. Virus Research, 2015, 207, 5-24.	2.2	10
84	Detection of Pathognomonic Biomarker PrPSc and the Contribution of Cell Free-Amplification Techniques to the Diagnosis of Prion Diseases. Biomolecules, 2020, 10, 469.	4.0	10
85	Cerebrospinal Fluid and Plasma Small Extracellular Vesicles and miRNAs as Biomarkers for Prion Diseases. International Journal of Molecular Sciences, 2021, 22, 6822.	4.1	10
86	Susceptibility of European Red Deer (Cervus elaphus elaphus) to Alimentary Challenge with Bovine Spongiform Encephalopathy. PLoS ONE, 2015, 10, e0116094.	2.5	9
87	Exploring the risks of a putative transmission of BSE to new species. Prion, 2013, 7, 443-446.	1.8	8
88	Homozygous R136S mutation in PRNP gene causes inherited early onset prion disease. Alzheimer's Research and Therapy, 2021, 13, 176.	6.2	8
89	Cyclic Amplification of Prion Protein Misfolding. , 2004, , 198-213.		7
90	A Quick Method to Evaluate the Effect of the Amino Acid Sequence in the Misfolding Proneness of the Prion Protein. Methods in Molecular Biology, 2017, 1658, 205-216.	0.9	7

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91	A Novel, Reliable and Highly Versatile Method to Evaluate Different Prion Decontamination Procedures. Frontiers in Bioengineering and Biotechnology, 2020, 8, 589182.	4.1	7
92	Autoantibodies against the prion protein in individuals with PRNP mutations. Neurology, 2020, 95, e2028-e2037.	1.1	7
93	SLITRK2, an X-linked modifier of the age at onset in C9orf72 frontotemporal lobar degeneration. Brain, 2021, 144, 2798-2811.	7.6	7
94	Lactogenic Immunity in Transgenic Mice Producing Recombinant Antibodies Neutralizing Coronavirus. Advances in Experimental Medicine and Biology, 1998, 440, 675-686.	1.6	7
95	PMCA. A Decade of In Vitro Prion Replication. Current Chemical Biology, 2010, 4, 200-207.	0.5	7
96	Prion-like diseases: Looking for their niche in the realm of infectious diseases. Virus Research, 2015, 207, 1-4.	2.2	6
97	Recombinant PrP and Its Contribution to Research on Transmissible Spongiform Encephalopathies. Pathogens, 2017, 6, 67.	2.8	6
98	Behind the potential evolution towards prion resistant species. Prion, 2018, 12, 83-87.	1.8	6
99	Biosemiotics comprehension of PrP code and prion disease. BioSystems, 2021, 210, 104542.	2.0	6
100	Cell expression of a four extra octarepeat mutated PrPCmodifies cell structure and cell cycle regulation. FEBS Letters, 2006, 580, 4097-4104.	2.8	5
101	Protein misfolding cyclic amplification corroborates the absence of PrP Sc accumulation in placenta from foetuses with the ARR/ARQ genotype in natural scrapie. Veterinary Microbiology, 2017, 203, 294-300.	1.9	5
102	Soluble polymorphic bank vole prion proteins induced by co-expression of quiescin sulfhydryl oxidase in E. coli and their aggregation behaviors. Microbial Cell Factories, 2017, 16, 170.	4.0	4
103	Animal Models for Testing Anti-Prion Drugs. Current Topics in Medicinal Chemistry, 2013, 13, 2504-2521.	2.1	4
104	The architecture of prions: how understanding would provide new therapeutic insights. Swiss Medical Weekly, 2016, 146, w14354.	1.6	4
105	PMCA. A Decade of In Vitro Prion Replication. Current Chemical Biology, 2010, 4, 200-207.	0.5	3
106	Lipids, a Missing Link in Prion Propagation. Chemistry and Biology, 2011, 18, 1345-1346.	6.0	3
107	Prion-resistant or prion-susceptible species, this is the question. Virulence, 2013, 4, 333-334.	4.4	3
108	Sporadic Creutzfeldtâ€“Jakob disease with extremely long 14â€year survival period. European Journal of Neurology, 2021, 28, 2901-2906.	3.3	3

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109	Description of the first Spanish case of Gerstmannâ€“StrÃusslerâ€“Scheinker disease with A117V variant: clinical, histopathological and biochemical characterization. Journal of Neurology, 2022, , .	3.6	3
110	Improving the Pharmacological Properties of Ciclopirox for Its Use in Congenital Erythropoietic Porphyria. Journal of Personalized Medicine, 2021, 11, 485.	2.5	2
111	Interference of Coronavirus Infection by Expression of IgG or IgA Virus Neutralizing Antibodies. Advances in Experimental Medicine and Biology, 1998, 440, 665-674.	1.6	1
112	Homozygous R136S mutation in PRNP gene causes inherited early onset prion disease. Alzheimer's Research and Therapy, 2021, 13, 176.	6.2	1
113	Protein Misfolding. , 2005, , 213-227.		0
114	Laboratory Identification of Prion Infections. , 2021, , .		0
115	Induction of an Immune Response to Transmissible Gastroenteritis Coronavirus Using Vectors with Enteric Tropism. Advances in Experimental Medicine and Biology, 1994, 342, 455-462.	1.6	0
116	Title is missing!. , 2019, 15, e1008117.		0
117	Title is missing!. , 2019, 15, e1008117.		0
118	Title is missing!. , 2019, 15, e1008117.		0