Juan Luis Jurat-Fuentes

List of Publications by Year
in descending order

87 papers	4,628 citations	87888 38 h-index	110387 64 g-index
94 all docs	94 docs citations	94 times ranked	2792 citing authors

#	Article	IF	Citations
1	Characterization of a Cry1Ac-receptor alkaline phosphatase in susceptible and resistant Heliothis virescens larvae. FEBS Journal, 2004, 271, 3127-3135.	0.2	242
2	Diversity of Bacillus thuringiensis Crystal Toxins and Mechanism of Action. Advances in Insect Physiology, 2014, 47, 39-87.	2.7	237
3	MAPK Signaling Pathway Alters Expression of Midgut ALP and ABCC Genes and Causes Resistance to Bacillus thuringiensis Cry1Ac Toxin in Diamondback Moth. PLoS Genetics, 2015, 11, e1005124.	3.5	178
4	Mechanisms of Resistance to Insecticidal Proteins from <i>Bacillus thuringiensis</i>. Annual Review of Entomology, 2021, 66, 121-140.	11.8	152
5	Reduced Levels of Membrane-Bound Alkaline Phosphatase Are Common to Lepidopteran Strains Resistant to Cry Toxins from Bacillus thuringiensis. PLoS ONE, 2011, 6, e17606.	2.5	139
6	Specificity determinants for Cry insecticidal proteins: Insights from their mode of action. Journal of Invertebrate Pathology, 2017, 142, 5-10.	3.2	138
7	The <scp>ATP</scp>â€binding cassette transporter subfamily C member 2 in <i><scp>B</scp>ombyxÂmori</i> larvae is a functional receptor for <scp>C</scp>ry toxins from <i><scp>B</scp>acillusÂthuringiensis</i>. FEBS Journal, 2013, 280, 1782-1794.	4.7	131
8	Dominant point mutation in a tetraspanin gene associated with field-evolved resistance of cotton bollworm to transgenic Bt cotton. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11760-11765.	7.1	116
9	Mechanism and DNA-based detection of field-evolved resistance to transgenic Bt corn in fall armyworm (Spodoptera frugiperda). Scientific Reports, 2017, 7, 10877.	3.3	110
10	Comparative molecular analyses of invasive fall armyworm in Togo reveal strong similarities to populations from the eastern United States and the Greater Antilles. PLoS ONE, 2017, 12, e0181982.	2.5	105
11	The origin of the odorant receptor gene family in insects. ELife, 2018, 7, .	6.0	103
12	A Novel Tenebrio molitor Cadherin Is a Functional Receptor for Bacillus thuringiensis Cry3Aa Toxin. Journal of Biological Chemistry, 2009, 284, 18401-18410.	3.4	102
13	Importance of Cry1 Î´-Endotoxin Domain II Loops for Binding Specificity in Heliothis virescens (L.). Applied and Environmental Microbiology, 2001, 67, 323-329.	3.1	99
14	Cry toxin mode of action in susceptible and resistant Heliothis virescens larvae. Journal of Invertebrate Pathology, 2006, 92, 166-171.	3.2	97
15	Identification of novel Cry1Ac binding proteins in midgut membranes from Heliothis virescens using proteomic analyses. Insect Biochemistry and Molecular Biology, 2007, 37, 189-201.	2.7	96
16	Synergism of <i>Bacillus thuringiensis</i> toxins by a fragment of a toxin-binding cadherin. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 13901-13906.	7.1	95
17	Binding Sites for Bacillus thuringiensis Cry2Ae Toxin on Heliothine Brush Border Membrane Vesicles Are Not Shared with Cry1A, Cry1F, or Vip3A Toxin. Applied and Environmental Microbiology, 2011, 77, 3182-3188.	3.1	95
18	Bt-R1a Extracellular Cadherin Repeat 12 Mediates Bacillus thuringiensis Cry1Ab Binding and Cytotoxicity. Journal of Biological Chemistry, 2004, 279, 28051-28056.	3.4	91

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19	Cryo-transmission electron tomography of native casein micelles from bovine milk. Journal of Dairy Science, 2011, 94, 5770-5775.	3.4	91
20	Dual Resistance to Bacillus thuringiensis Cry1Ac and Cry2Aa Toxins in Heliothis virescens Suggests Multiple Mechanisms of Resistance. Applied and Environmental Microbiology, 2003, 69, 5898-5906.	3.1	81
21	The HevCaLP Protein Mediates Binding Specificity of the Cry1A Class ofBacillus thuringiensisToxins inHeliothis virescens. Biochemistry, 2004, 43, 14299-14305.	2.5	80
22	Binding Analyses of Bacillus thuringiensis Cry Î´-Endotoxins Using Brush Border Membrane Vesicles of Ostrinia nubilalis. Applied and Environmental Microbiology, 2001, 67, 872-879.	3.1	79
23	Field-Evolved Mode 1 Resistance of the Fall Armyworm to Transgenic Cry1Fa-Expressing Corn Associated with Reduced Cry1Fa Toxin Binding and Midgut Alkaline Phosphatase Expression. Applied and Environmental Microbiology, 2016, 82, 1023-1034.	3.1	78
24	Altered Glycosylation of 63- and 68-Kilodalton Microvillar Proteins in <i>Heliothis virescens</i> Correlates with Reduced Cry1 Toxin Binding, Decreased Pore Formation, and Increased Resistance to <i>Bacillus thuringiensis</i> Cry1 Toxins. Applied and Environmental Microbiology, 2002, 68, 5711-5717.	3.1	77
25	Susceptibility of Isofamilies of<i>Spodoptera frugiperda</i>(Lepidoptera: Noctuidae) to Cry1Ac and Cry1Fa Proteins of<i>Bacillus thuringiensis</i>. Southwestern Entomologist, 2010, 35, 409-415.	0.2	76
26	Bacterial Entomopathogens. , 2012, , 265-349.		76
27	<i>Tribolium castaneum</i> Larval Gut Transcriptome and Proteome: A Resource for the Study of the Coleopteran Gut. Journal of Proteome Research, 2009, 8, 3889-3898.	3.7	71
28	Fitness Costs Associated With Field-Evolved Resistance to Bt Maize in <I>Spodoptera frugiperda</I> (Lepidoptera: Noctuidae). Journal of Economic Entomology, 2014, 107, 342-351.	1.8	70
29	Analysis of midgut proteinases from Bacillus thuringiensis-susceptible and -resistant Heliothis virescens (Lepidoptera: Noctuidae). Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2007, 146, 139-146.	1.6	66
30	Prospecting for cellulolytic activity in insect digestive fluids. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2010, 155, 145-154.	1.6	65
31	Methods for discovery and characterization of cellulolytic enzymes from insects. Insect Science, 2010, 17, 184-198.	3.0	64
32	Transcriptome Profiling of the Intoxication Response of Tenebrio molitor Larvae to Bacillus thuringiensis Cry3Aa Protoxin. PLoS ONE, 2012, 7, e34624.	2.5	60
33	TheHeliothis virescensCadherin Protein Expressed inDrosophilaS2 Cells Functions as a Receptor forBacillus thuringiensisCry1A but Not Cry1Fa Toxinsâ€. Biochemistry, 2006, 45, 9688-9695.	2.5	58
34	Characterization of a Cry1Ac toxin-binding alkaline phosphatase in the midgut from Helicoverpa armigera (HÃ¼bner) larvae. Journal of Insect Physiology, 2010, 56, 666-672.	2.0	54
35	Bacillus thuringiensis Cry1Ac and Cry1Fa Î´-endotoxin binding to a novel 110 kDa aminopeptidase in Heliothis virescens is not N-acetylgalactosamine mediated. Insect Biochemistry and Molecular Biology, 2001, 31, 909-918.	2.7	51
36	Fluorescent-based assays establish Manduca sexta Bt-R1a cadherin as a receptor for multiple Bacillus thuringiensis Cry1A toxins in Drosophila S2 cells. Insect Biochemistry and Molecular Biology, 2004, 34, 193-202.	2.7	51

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37	Comparative Proteomic Analysis of Aedes aegypti Larval Midgut after Intoxication with Cry11Aa Toxin from Bacillus thuringiensis. PLoS ONE, 2012, 7, e37034.	2.5	51
38	Cloning and characterization of the Cry1Ac-binding alkaline phosphatase (HvALP) from Heliothis virescens. Insect Biochemistry and Molecular Biology, 2009, 39, 294-302.	2.7	49
39	Association of Cry1Ac Toxin Resistance in Helicoverpa zea (Boddie) with Increased Alkaline Phosphatase Levels in the Midgut Lumen. Applied and Environmental Microbiology, 2012, 78, 5690-5698.	3.1	45
40	Adaptation by copy number variation increases insecticide resistance in the fall armyworm. Communications Biology, 2020, 3, 664.	4.4	41
41	Identification, cloning, and expression of a GHF9 cellulase from Tribolium castaneum (Coleoptera:) Tj ETQq1 1 0.784314 rgBT /Overlock	2.0	40
42	First documentation of major Vip3Aa resistance alleles in field populations of Helicoverpa zea (Boddie) (Lepidoptera: Noctuidae) in Texas, USA. Scientific Reports, 2020, 10, 5867.	3.3	40
43	Intestinal regeneration as an insect resistance mechanism to entomopathogenic bacteria. Current Opinion in Insect Science, 2016, 15, 104-110.	4.4	39
44	Binding of vitamin A by casein micelles in commercial skim milk. Journal of Dairy Science, 2013, 96, 790-798.	3.4	38
45	Whole genome comparisons reveal panmixia among fall armyworm (Spodoptera frugiperda) from diverse locations. BMC Genomics, 2021, 22, 179.	2.8	37
46	Characterization of cellulolytic activity from digestive fluids of Dissosteira carolina (Orthoptera:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3 267-272.	1.6	34
47	Mechanisms of resistance to commercially relevant entomopathogenic bacteria. Current Opinion in Insect Science, 2019, 33, 56-62.	4.4	34
48	A proteomic approach to study Cry1Ac binding proteins and their alterations in resistant Heliothis virescens larvae. Journal of Invertebrate Pathology, 2007, 95, 187-191.	3.2	33
49	Selection for high levels of resistance to double-stranded RNA (dsRNA) in Colorado potato beetle (Leptinotarsa decemlineata Say) using non-transgenic foliar delivery. Scientific Reports, 2021, 11, 6523.	3.3	33
50	Spodoptera frugiperda (J.E. Smith) with field-evolved resistance to Bt maize are susceptible to Bt pesticides. Journal of Invertebrate Pathology, 2014, 122, 52-54.	3.2	32
51	Decreased Cry1Ac activation by midgut proteases associated with Cry1Ac resistance in <scp><i>Helicoverpa zea</i></scp>. Pest Management Science, 2019, 75, 1099-1106.	3.4	30
52	Increased toxicity of <i>Bacillus thuringiensis</i> Cry3Aa against <i>Crioceris quatuordecimpunctata</i>, <i>Phaedon brassicae</i> and <i>Colaphellus bowringi</i> by a <i>Tenebrio molitor</i> cadherin fragment. Pest Management Science, 2011, 67, 1076-1081.	3.4	27
53	Fitness costs of sublethal exposure to <i><scp>B</scp>acillus thuringiensis</i> in <i><scp>H</scp>elicoverpa armigera</i>: a carryover study on offspring. Journal of Applied Entomology, 2013, 137, 540-549.	1.8	23
54	The association of low-molecular-weight hydrophobic compounds with native casein micelles in bovine milk. Journal of Dairy Science, 2015, 98, 5155-5163.	3.4	23

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55	The digestive system in Zygentoma as an insect model for high cellulase activity. PLoS ONE, 2019, 14, e0212505.	2.5	23
56	Response of <I>Heliothis virescens</I> (Lepidoptera: Noctuidae) Strains to <I>Bacillus thuringiensis</I> Cry1Ac Incorporated Into Different Insect Artificial Diets. Journal of Economic Entomology, 2009, 102, 1599-1606.	1.8	20
57	Identification of a New <i>cry1I</i> -Type Gene as a Candidate for Gene Pyramiding in Corn To Control Ostrinia Species Larvae. Applied and Environmental Microbiology, 2015, 81, 3699-3705.	3.1	19
58	Monitoring stem cell proliferation and differentiation in primary midgut cell cultures from Heliothis virescens larvae using flow cytometry. Differentiation, 2011, 81, 192-198.	1.9	18
59	Generation of a Transcriptome in a Model Lepidopteran Pest, Heliothis virescens, Using Multiple Sequencing Strategies for Profiling Midgut Gene Expression. PLoS ONE, 2015, 10, e0128563.	2.5	18
60	Physiology and Ecology of Host Defense Against Microbial Invaders. , 2012, , 461-480.		17
61	Binding Site Concentration Explains the Differential Susceptibility of Chilo suppressalis and Sesamia inferens to Cry1A-Producing Rice. Applied and Environmental Microbiology, 2014, 80, 5134-5140.	3.1	17
62	Transgenic Bt rice lines producing Cry1Ac, Cry2Aa or Cry1Ca have no detrimental effects on Brown Planthopper and Pond Wolf Spider. Scientific Reports, 2017, 7, 1940.	3.3	17
63	Bt Crops: Past and Future. , 2012, , 283-304.		16
64	Cry1F resistance among lepidopteran pests: a model for improved resistance management?. Current Opinion in Insect Science, 2016, 15, 116-124.	4.4	16
65	Herbicide and insect resistant Bt cotton pollen assessment finds no detrimental effects on adult honey bees. Environmental Pollution, 2017, 230, 479-485.	7.5	16
66	Domain Shuffling between Vip3Aa and Vip3Ca: Chimera Stability and Insecticidal Activity against European, American, African, and Asian Pests. Toxins, 2020, 12, 99.	3.4	16
67	Chromatographic fractionation and molecular mass characterization of <i>Cercidium praecox</i> (Brea) gum. Journal of the Science of Food and Agriculture, 2016, 96, 4345-4350.	3.5	15
68	Identification of a native<i>Bacillus thuringiensis</i>strain from Sri Lanka active against Dipel-resistant<i>Plutella xylostella</i>. PeerJ, 2019, 7, e7535.	2.0	15
69	Differential heliothine susceptibility to Cry1Ac associated with gut proteolytic activity. Pesticide Biochemistry and Physiology, 2019, 153, 1-8.	3.6	13
70	Reduced Membrane-Bound Alkaline Phosphatase Does Not Affect Binding of Vip3Aa in a Heliothis virescens Resistant Colony. Toxins, 2020, 12, 409.	3.4	13
71	<scp>ABC</scp> transporter mutations in <scp>C</scp>ry<scp>1F</scp>â€resistant fall armyworm (<i>Spodoptera frugiperda</i>) do not result in altered susceptibility to selected small molecule pesticides. Pest Management Science, 2021, 77, 949-955.	3.4	13
72	Alpha-arylphorin is a mitogen in the <i>Heliothis virescens</i> midgut cell secretome upon Cry1Ac intoxication. PeerJ, 2017, 5, e3886.	2.0	13

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73	Midgut metabolomic profiling of fall armyworm (Spodoptera frugiperda) with field-evolved resistance to Cry1F corn. Insect Biochemistry and Molecular Biology, 2019, 106, 1-9.	2.7	12
74	Genetic Screening to Identify Candidate Resistance Alleles to Cry1F Corn in Fall Armyworm Using Targeted Sequencing. Insects, 2021, 12, 618.	2.2	12
75	Homologs to Cry toxin receptor genes in a de novo transcriptome and their altered expression in resistant Spodoptera litura larvae. Journal of Invertebrate Pathology, 2015, 129, 1-6.	3.2	11
76	Novel real-time PCR based assays for differentiating fall armyworm strains using four single nucleotide polymorphisms. PeerJ, 2021, 9, e12195.	2.0	9
77	Activity of Bacillus thuringiensis Cry1Ie2, Cry2Ac7, Vip3Aa11 and Cry7Ab3 proteins against Anticarsia gemmatalis, Chrysodeixis includens and Ceratoma trifurcata. Journal of Invertebrate Pathology, 2017, 150, 70-72.	3.2	8
78	Genetic Knockouts Indicate That the ABCC2 Protein in the Bollworm Helicoverpa zea Is Not a Major Receptor for the Cry1Ac Insecticidal Protein. Genes, 2021, 12, 1522.	2.4	8
79	Identification and functional characterization of a Î²-glucosidase from Bacillus tequelensis BD69 expressed in bacterial and yeast heterologous systems. PeerJ, 2020, 8, e8792.	2.0	8
80	Expression of an endoglucanase from <i>Tribolium castaneum</i> (TcEG1) in <i>Saccharomyces cerevisiae</i>. Insect Science, 2014, 21, 609-618.	3.0	7
81	Domain III of Cry1Ac Is Critical to Binding and Toxicity against Soybean Looper (Chrysodeixis) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	3.4	7
82	The TcEG1 beetle (Tribolium castaneum) cellulase produced in transgenic switchgrass is active at alkaline pH and auto-hydrolyzes biomass for increased cellobiose release. Biotechnology for Biofuels, 2017, 10, 230.	6.2	6
83	Dockingâ€based generation of antibodies mimicking <scp>Cry1A</scp>/<scp>1B</scp> protein binding sites as potential insecticidal agents against diamondback moth (<i>Plutella xylostella</i>). Pest Management Science, 2021, 77, 4593-4606.	3.4	6
84	Editorial overview: Pests and resistance: Resistance to Bt toxins in transgenic crops. Current Opinion in Insect Science, 2016, 15, iv-vi.	4.4	5
85	Commercial Production of Entomopathogenic Bacteria. , 2014, , 415-435.		2
86	Expression and functional characterization in yeast of an endoglucanase from Bacillus sonorensis BD92 and its impact as feed additive in commercial broilers. International Journal of Biological Macromolecules, 2021, 176, 364-375.	7.5	1
87	Insecticidal RNA interference (RNAi) for control of potato pests. , 2022, , 219-229.		0