Luke Alphey

List of Publications by Year
in descending order

127 papers	8,283 citations	47004 47 h-index	54911 84 g-index
132 all docs	132 docs citations	132 times ranked	5044 citing authors

#	Article	IF	Citations
1	Reproductive interference and Satyrisation: mechanisms, outcomes and potential use for insect control. Journal of Pest Science, 2022, 95, 1023-1036.	3.7	2
2	Considerations for homology-based DNA repair in mosquitoes: Impact of sequence heterology and donor template source. PLoS Genetics, 2022, 18, e1010060.	3.5	10
3	Toward a CRISPR-Cas9-Based Gene Drive in the Diamondback Moth <i>Plutella xylostella</i>. CRISPR Journal, 2022, 5, 224-236.	2.9	26
4	The Challenges in Developing Efficient and Robust Synthetic Homing Endonuclease Gene Drives. Frontiers in Bioengineering and Biotechnology, 2022, 10, 856981.	4.1	11
5	Expression of Alphavirus Nonstructural Protein 2 (nsP2) in Mosquito Cells Inhibits Viral RNA Replication in Both a Protease Activity-Dependent and -Independent Manner. Viruses, 2022, 14, 1327.	3.3	6
6	Intron-derived small RNAs for silencing viral RNAs in mosquito cells. PLoS Neglected Tropical Diseases, 2022, 16, e0010548.	3.0	2
7	Culex quinquefasciatus: status as a threat to island avifauna and options for genetic control. CABI Agriculture and Bioscience, 2021, 2, .	2.4	19
8	Engineered expression of the invertebrateâ€specific scorpion toxin <scp>AaHIT</scp> reduces adult longevity and female fecundity in the diamondback moth <i>Plutella xylostella</i>. Pest Management Science, 2021, 77, 3154-3164.	3.4	8
9	CRISPR/Cas-9 mediated knock-in by homology dependent repair in the West Nile Virus vector Culex quinquefasciatus Say. Scientific Reports, 2021, 11, 14964.	3.3	13
10	Combating mosquito-borne diseases using genetic control technologies. Nature Communications, 2021, 12, 4388.	12.8	76
11	nsP4 Is a Major Determinant of Alphavirus Replicase Activity and Template Selectivity. Journal of Virology, 2021, 95, e0035521.	3.4	19
12	Genetic pest management and the background genetics of release strains. Philosophical Transactions of the Royal Society B: Biological Sciences, 2021, 376, 20190805.	4.0	19
13	Populationâ€level multiplexing: A promising strategy to manage the evolution of resistance against gene drives targeting a neutral locus. Evolutionary Applications, 2020, 13, 1939-1948.	3.1	13
14	Standardizing the definition of gene drive. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30864-30867.	7.1	88
15	Cas13b-dependent and Cas13b-independent RNA knockdown of viral sequences in mosquito cells following guide RNA expression. Communications Biology, 2020, 3, 413.	4.4	24
16	Cross-utilisation of template RNAs by alphavirus replicases. PLoS Pathogens, 2020, 16, e1008825.	4.7	18
17	Ommochrome pathway genes kynurenine 3-hydroxylase and cardinal participate in eye pigmentation in Plutella xylostella. BMC Molecular and Cell Biology, 2020, 21, 63.	2.0	17
18	Core commitments for field trials of gene drive organisms. Science, 2020, 370, 1417-1419.	12.6	67

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19	Split drive killer-rescue provides a novel threshold-dependent gene drive. Scientific Reports, 2020, 10, 20520.	3.3	20
20	Genetic Biocontrol for Invasive Species. Frontiers in Bioengineering and Biotechnology, 2020, 8, 452.	4.1	78
21	Identification and characterization of the vasa gene in the diamondback moth, Plutella xylostella. Insect Biochemistry and Molecular Biology, 2020, 122, 103371.	2.7	9
22	Targeting female flight for genetic control of mosquitoes. PLoS Neglected Tropical Diseases, 2020, 14, e0008876.	3.0	17
23	CRISPR/Cas9 gene editing in the West Nile Virus vector, Culex quinquefasciatus Say. PLoS ONE, 2019, 14, e0224857.	2.5	24
24	Engineered action at a distance: Blood-meal-inducible paralysis in Aedes aegypti. PLoS Neglected Tropical Diseases, 2019, 13, e0007579.	3.0	11
25	Design and Use of Chikungunya Virus Replication Templates Utilizing Mammalian and Mosquito RNA Polymerase I-Mediated Transcription. Journal of Virology, 2019, 93, .	3.4	24
26	Recent advances in threshold-dependent gene drives for mosquitoes. Biochemical Society Transactions, 2018, 46, 1203-1212.	3.4	36
27	Towards the genetic control of invasive species. Biological Invasions, 2017, 19, 1683-1703.	2.4	88
28	Is It Time for Synthetic Biodiversity Conservation?. Trends in Ecology and Evolution, 2017, 32, 97-107.	8.7	129
29	SIT 2.0: 21st Century genetic technology for the screwworm sterile-insect program. BMC Biology, 2016, 14, 80.	3.8	8
30	Can CRISPR-Cas9 gene drives curb malaria?. Nature Biotechnology, 2016, 34, 149-150.	17.5	48
31	Suppression of a Field Population of Aedes aegypti in Brazil by Sustained Release of Transgenic Male Mosquitoes. PLoS Neglected Tropical Diseases, 2015, 9, e0003864.	3.0	441
32	Dispersal of Engineered Male Aedes aegypti Mosquitoes. PLoS Neglected Tropical Diseases, 2015, 9, e0004156.	3.0	53
33	Mating competitiveness and lifeâ€table comparisons between transgenic and Indian wildâ€type Aedes aegypti L.. Pest Management Science, 2015, 71, 957-965.	3.4	21
34	Pest control and resistance management through release of insects carrying a male-selecting transgene. BMC Biology, 2015, 13, 49.	3.8	59
35	Assessment of the Impact of Potential Tetracycline Exposure on the Phenotype of Aedes aegypti OX513A: Implications for Field Use. PLoS Neglected Tropical Diseases, 2015, 9, e0003999.	3.0	18
36	Site-Specific Cassette Exchange Systems in the Aedes aegypti Mosquito and the Plutella xylostella Moth. PLoS ONE, 2015, 10, e0121097.	2.5	27

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37	Estimation of Aedes aegypti (Diptera: Culicidae) population size and adult male survival in an urban area in Panama. Memorias Do Instituto Oswaldo Cruz, 2014, 109, 879-886.	1.6	17
38	Five Things to Know about Genetically Modified (GM) Insects for Vector Control. PLoS Pathogens, 2014, 10, e1003909.	4.7	25
39	Populationâ€level effects of fitness costs associated with repressible femaleâ€lethal transgene insertions in two pest insects. Evolutionary Applications, 2014, 7, 597-606.	3.1	31
40	Genetic elimination of field-cage populations of Mediterranean fruit flies. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20141372.	2.6	57
41	Genetic Control of Mosquitoes. Annual Review of Entomology, 2014, 59, 205-224.	11.8	350
42	Genetic control of Aedes aegypti: data-driven modelling to assess the effect of releasing different life stages and the potential for long-term suppression. Parasites and Vectors, 2014, 7, 68.	2.5	20
43	Mass Production of Genetically Modified Aedes aegypti for Field Releases in Brazil. Journal of Visualized Experiments, 2014, , e3579.	0.3	85
44	Development of a population suppression strain of the human malaria vector mosquito, Anopheles stephensi. Malaria Journal, 2013, 12, 142.	2.3	49
45	Mating compatibility and competitiveness of transgenic and wild type Aedes aegypti (L.) under contained semi-field conditions. Transgenic Research, 2013, 22, 47-57.	2.4	26
46	Engineered Female-Specific Lethality for Control of Pest Lepidoptera. ACS Synthetic Biology, 2013, 2, 160-166.	3.8	79
47	Genetic control of<i>Aedes</i>mosquitoes. Pathogens and Global Health, 2013, 107, 170-179.	2.3	123
48	PNUTS/PP1 Regulates RNAPII-Mediated Gene Expression and Is Necessary for Developmental Growth. PLoS Genetics, 2013, 9, e1003885.	3.5	43
49	Transgene-based, female-specific lethality system for genetic sexing of the silkworm, <i>Bombyx mori</i>. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 6766-6770.	7.1	117
50	DsRed2 transient expression in Culex quinquefasciatus mosquitoes. Memorias Do Instituto Oswaldo Cruz, 2013, 108, 529-531.	1.6	3
51	Polymerase chain displacement reaction. BioTechniques, 2013, 54, 93-97.	1.8	13
52	The Orthologue of the Fruitfly Sex Behaviour Gene Fruitless in the Mosquito Aedes aegypti: Evolution of Genomic Organisation and Alternative Splicing. PLoS ONE, 2013, 8, e48554.	2.5	44
53	Fitness of Transgenic Mosquito Aedes aegypti Males Carrying a Dominant Lethal Genetic System. PLoS ONE, 2013, 8, e62711.	2.5	51
54	Field Cage Studies and Progressive Evaluation of Genetically-Engineered Mosquitoes. PLoS Neglected Tropical Diseases, 2013, 7, e2001.	3.0	68

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55	Oral Ingestion of Transgenic RIDL Ae. aegypti Larvae Has No Negative Effect on Two Predator Toxorhynchites Species. PLoS ONE, 2013, 8, e58805.	2.5	16
56	DengueTools: innovative tools and strategies for the surveillance and control of dengue. Global Health Action, 2012, 5, 17273.	1.9	98
57	Appropriate Regulation of GM Insects. PLoS Neglected Tropical Diseases, 2012, 6, e1496.	3.0	14
58	Female-Specific Flightless (fsRIDL) Phenotype for Control of Aedes albopictus. PLoS Neglected Tropical Diseases, 2012, 6, e1724.	3.0	88
59	Flight Performance and Teneral Energy Reserves of Two Genetically-Modified and One Wild-Type Strain of the Yellow Fever Mosquito <i>Aedes aegypti</i>. Vector-Borne and Zoonotic Diseases, 2012, 12, 1053-1058.	1.5	33
60	Genetically Modified Insects for Pest Control: An Update. Outlooks on Pest Management, 2012, 23, 65-68.	0.2	3
61	Successful suppression of a field mosquito population by sustained release of engineered male mosquitoes. Nature Biotechnology, 2012, 30, 828-830.	17.5	329
62	Control of the olive fruit fly using genetics-enhanced sterile insect technique. BMC Biology, 2012, 10, 51.	3.8	128
63	Multiplex Detection and SNP Genotyping in a Single Fluorescence Channel. PLoS ONE, 2012, 7, e30340.	2.5	14
64	Open Field Release of Genetically Engineered Sterile Male Aedes aegypti in Malaysia. PLoS ONE, 2012, 7, e42771.	2.5	196
65	Field Longevity of a Fluorescent Protein Marker in an Engineered Strain of the Pink Bollworm, Pectinophora gossypiella (Saunders). PLoS ONE, 2012, 7, e38547.	2.5	14
66	Engineered Repressible Lethality for Controlling the Pink Bollworm, a Lepidopteran Pest of Cotton. PLoS ONE, 2012, 7, e50922.	2.5	27
67	Field performance of engineered male mosquitoes. Nature Biotechnology, 2011, 29, 1034-1037.	17.5	314
68	Field Performance of a Genetically Engineered Strain of Pink Bollworm. PLoS ONE, 2011, 6, e24110.	2.5	47
69	A Model Framework to Estimate Impact and Cost of Genetics-Based Sterile Insect Methods for Dengue Vector Control. PLoS ONE, 2011, 6, e25384.	2.5	64
70	Why RIDL is not SIT. Trends in Parasitology, 2011, 27, 362-370.	3.3	71
71	Modeling resistance to genetic control of insects. Journal of Theoretical Biology, 2011, 270, 42-55.	1.7	47
72	Genetic elimination of dengue vector mosquitoes. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 4772-4775.	7.1	212

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73	Comparison of Life History Characteristics of the Genetically Modified OX513A Line and a Wild Type Strain of Aedes aegypti. PLoS ONE, 2011, 6, e20699.	2.5	53
74	Cost of Mating and Insemination Capacity of a Genetically Modified Mosquito Aedes aegypti OX513A Compared to Its Wild Type Counterpart. PLoS ONE, 2011, 6, e26086.	2.5	31
75	Use of a regulatory mechanism of sex determination in pest insect control. Journal of Genetics, 2010, 89, 301-305.	0.7	23
76	Transcriptomics and disease vector control. BMC Biology, 2010, 8, 52.	3.8	13
77	Irritant and Repellent Behavioral Responses of Aedes aegypti Male Populations Developed for RIDL Disease Control Strategies. Journal of Medical Entomology, 2010, 47, 1092-1098.	1.8	6
78	Transgenic Control of Vectors: The Effects of Interspecific Interactions. Israel Journal of Ecology and Evolution, 2010, 56, 353-370.	0.6	18
79	piggybac- and PhiC31-Mediated Genetic Transformation of the Asian Tiger Mosquito, Aedes albopictus (Skuse). PLoS Neglected Tropical Diseases, 2010, 4, e788.	3.0	85
80	Female-specific flightless phenotype for mosquito control. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4550-4554.	7.1	291
81	Sterile-Insect Methods for Control of Mosquito-Borne Diseases: An Analysis. Vector-Borne and Zoonotic Diseases, 2010, 10, 295-311.	1.5	432
82	Natural and engineered mosquito immunity. Journal of Biology, 2009, 8, 40.	2.7	20
83	Combining Pest Control and Resistance Management: Synergy of Engineered Insects With Bt Crops. Journal of Economic Entomology, 2009, 102, 717-732.	1.8	45
84	Sex separation strategies: past experience and new approaches. Malaria Journal, 2009, 8, S5.	2.3	110
85	Genetically Modified Insects as a Tool for Biorational Control. , 2009, , 189-206.		6
86	Proportions of different habitat types are critical to the fate of a resistance allele. Theoretical Ecology, 2008, 1, 103-115.	1.0	19
87	Drosophila Uri, a PP1Î± binding protein, is essential for viability, maintenance of DNA integrity and normal transcriptional activity. BMC Molecular Biology, 2008, 9, 36.	3.0	34
88	<i>Aedes aegypti</i> control: the concomitant role of competition, space and transgenic technologies. Journal of Applied Ecology, 2008, 45, 1258-1265.	4.0	75
89	Insect Population Suppression Using Engineered Insects. Advances in Experimental Medicine and Biology, 2008, 627, 93-103.	1.6	83
90	Yeast Two-Hybrid Screens to Identify <i>Drosophila</i> PP1-Binding Proteins. , 2007, 365, 155-180.		3

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91	The Nonmuscle Myosin Phosphatase PP1Î² (flapwing) Negatively Regulates Jun N-Terminal Kinase in Wing Imaginal Discs of Drosophila. Genetics, 2007, 175, 1741-1749.	2.9	12
92	Essential, Overlapping and Redundant Roles of the Drosophila Protein Phosphatase 1Î± and 1Î² Genes. Genetics, 2007, 176, 273-281.	2.9	30
93	Managing Insecticide Resistance by Mass Release of Engineered Insects. Journal of Economic Entomology, 2007, 100, 1642-1649.	1.8	43
94	Genetic sexing through the use of Y-linked transgenes. Insect Biochemistry and Molecular Biology, 2007, 37, 1168-1176.	2.7	33
95	Late-acting dominant lethal genetic systems and mosquito control. BMC Biology, 2007, 5, 11.	3.8	342
96	Female-specific insect lethality engineered using alternative splicing. Nature Biotechnology, 2007, 25, 353-357.	17.5	217
97	Managing Insecticide Resistance by Mass Release of Engineered Insects. Journal of Economic Entomology, 2007, 100, 1642-1649.	1.8	36
98	CG15031/PPYR1 is an intrinsically unstructured protein that interacts with protein phosphatase Y. Archives of Biochemistry and Biophysics, 2006, 451, 59-67.	3.0	10
99	Towards a Comprehensive Analysis of the Protein Phosphatase 1 Interactome in Drosophila. Journal of Molecular Biology, 2006, 364, 196-212.	4.2	27
100	Transposon-free insertions for insect genetic engineering. Nature Biotechnology, 2006, 24, 820-821.	17.5	58
101	Mosquito transgenesis: what is the fitness cost?. Trends in Parasitology, 2006, 22, 197-202.	3.3	126
102	Germ line specific expression of a protein phosphatase Y interacting protein (PPYR1) in Drosophila. Gene Expression Patterns, 2006, 6, 724-729.	0.8	3
103	A dominant lethal genetic system for autocidal control of the Mediterranean fruitfly. Nature Biotechnology, 2005, 23, 453-456.	17.5	170
104	Bifocal and PP1 interaction regulates targeting of the R-cell growth cone in Drosophila. Developmental Biology, 2005, 288, 372-386.	2.0	9
105	The Essential Role of PP1Î² in Drosophila Is to Regulate Nonmuscle Myosin. Molecular Biology of the Cell, 2004, 15, 4395-4405.	2.1	60
106	Editorial: Genetic control of vector populations: an imminent prospect. Tropical Medicine and International Health, 2004, 9, 433-437.	2.3	39
107	Cloning and expression of mars, a novel member of the guanylate kinase associated protein family in Drosophila. Gene Expression Patterns, 2004, 4, 529-535.	0.8	8
108	PP1?9C interacts with trithorax inDrosophila wing development. Developmental Dynamics, 2004, 231, 336-341.	1.8	6

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109	Trithorax interacts with type 1 serine/threonine protein phosphatase in Drosophila. EMBO Reports, 2003, 4, 59-63.	4.5	24
110	Ectopic Expression of Inhibitors of Protein Phosphatase Type 1 (PP1) Can Be Used to Analyze Roles of PP1 in Drosophila Development. Genetics, 2003, 164, 235-245.	2.9	19
111	Malaria Control with Genetically Manipulated Insect Vectors. Science, 2002, 298, 119-121.	12.6	221
112	Functional interaction between nuclear inhibitor of protein phosphatase type 1 (NIPP1) and protein phosphatase type 1 (PP1) in Drosophila: consequences of over-expression of NIPP1 in flies and suppression by co-expression of PP1. Biochemical Journal, 2002, 368, 789-797.	3.7	31
113	Re-engineering the sterile insect technique. Insect Biochemistry and Molecular Biology, 2002, 32, 1243-1247.	2.7	161
114	Dominant lethality and insect population control. Molecular and Biochemical Parasitology, 2002, 121, 173-178.	1.1	115
115	PP1 binds Sara and negatively regulates Dpp signaling in Drosophila melanogaster. Nature Genetics, 2002, 31, 419-423.	21.4	94
116	Biochemical Characterization of Recombinant Drosophila Type 1 Serine/Threonine Protein Phosphatase (PP1c) Produced in Pichia pastoris. Archives of Biochemistry and Biophysics, 2001, 396, 213-218.	3.0	8
117	Vectors for the Expression of Tagged Proteins in <i>Drosophila</i>. BioTechniques, 2001, 31, 1280-1286.	1.8	32
118	The Chaperone-like Properties of Mammalian Inhibitor-2 Are Conserved in aDrosophilaHomologueâ€,â€¡. Biochemistry, 1999, 38, 16276-16282.	2.5	21
119	A Drosophila homologue of oxysterol binding protein (OSBP) â€“ implications for the role of OSBP. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1998, 1395, 159-164.	2.4	34
120	KLP38B: A Mitotic Kinesin-related Protein That Binds PP1. Journal of Cell Biology, 1997, 138, 395-409.	5.2	53
121	PCR-Based Method for Isolation of Full-Length Clones and Splice Variants from cDNA Libraries. BioTechniques, 1997, 22, 481-486.	1.8	9
122	Cell Cycle Genes of Drosophila. Advances in Genetics, 1994, 31, 79-138.	1.8	9
123	The Meiotic Role of twine, A Drosophila Homologue of cdc25. , 1994, , 51-57.		0
124	twine, a cdc25 homolog that functions in the male and female germline of drosophila. Cell, 1992, 69, 977-988.	28.9	219
125	Drosophila contains three genes that encode distinct isoforms of protein phosphatase 1. FEBS Journal, 1990, 194, 739-745.	0.2	99
126	The structure of protein phosphatase 2A is as highly conserved as that of protein phosphatase I. FEBS Letters, 1990, 275, 44-48.	2.8	73

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127	Genetic approaches in Aedes aegypti for control of dengue:. , 0, , 77-87.		0