Omar Akbari

List of Publications by Citations

119 papers	3,247 citations	31 h-index	54 g-index
131 ext. papers	4,383 ext. citations	8.8 avg, IF	5.85 L-index

#	Paper	IF	Citations
119	Cheating evolution: engineering gene drives to manipulate the fate of wild populations. *Nature Reviews Genetics*, **2016**, 17, 146-59	30.1	283
118	Improved reference genome of Aedes aegypti informs arbovirus vector control. *Nature*, **2018**, 563, 501-507	50.4	235
117	BIOSAFETY. Safeguarding gene drive experiments in the laboratory. *Science*, **2015**, 349, 927-9	33.3	215
116	Malaria eradication within a generation: ambitious, achievable, and necessary. *Lancet, The*, **2019**, 394, 1056-1112	40	130
115	A synthetic gene drive system for local, reversible modification and suppression of insect populations. *Current Biology*, **2013**, 23, 671-7	6.3	127
114	The developmental transcriptome of the mosquito Aedes aegypti, an invasive species and major arbovirus vector. *G3: Genes, Genomes, Genetics*, **2013**, 3, 1493-509	3.2	122
113	Overcoming evolved resistance to population-suppressing homing-based gene drives. *Scientific Reports*, **2017**, 7, 3776	4.9	113
112	Germline Cas9 expression yields highly efficient genome engineering in a major worldwide disease vector,. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E10540-E10549	11.5	105
111	Mapping a multiplexed zoo of mRNA expression. *Development (Cambridge)*, **2016**, 143, 3632-3637	6.6	95
110	Transforming insect population control with precision guided sterile males with demonstration in flies. *Nature Communications*, **2019**, 10, 84	17.4	85
109	Development of a confinable gene drive system in the human disease vector. *ELife*, **2020**, 9,	8.9	82
108	Synthetically engineered gene drive system in the worldwide crop pest. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 4725-4730	11.5	73
107	Novel synthetic Medea selfish genetic elements drive population replacement in Drosophila; a theoretical exploration of Medea-dependent population suppression. *ACS Synthetic Biology*, **2014**, 3, 915-28	5.7	71
106	Radical remodeling of the Y chromosome in a recent radiation of malaria mosquitoes. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E2114-23	11.5	63
105	Rules of the road for insect gene drive research and testing. *Nature Biotechnology*, **2017**, 35, 716-718	44.5	62
104	Can CRISPR-Based Gene Drive Be Confined in the Wild? A Question for Molecular and Population Biology. *ACS Chemical Biology*, **2018**, 13, 424-430	4.9	58
103	Engineered resistance to Zika virus in transgenic expressing a polycistronic cluster of synthetic small RNAs. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 3656-3661	11.5	53

102	Engineered Reciprocal Chromosome Translocations Drive High Threshold, Reversible Population Replacement in Drosophila. *ACS Synthetic Biology*, **2018**, 7, 1359-1370	5.7	53
101	The olfactory basis of orchid pollination by mosquitoes. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 708-716	11.5	49
100	Generation of heritable germline mutations in the jewel wasp Nasonia vitripennis using CRISPR/Cas9. *Scientific Reports*, **2017**, 7, 901	4.9	47
99	Modulation of Host Learning in Aedes aegypti Mosquitoes. *Current Biology*, **2018**, 28, 333-344.e8	6.3	47
98	A novel promoter-tethering element regulates enhancer-driven gene expression at the bithorax complex in the Drosophila embryo. *Development (Cambridge)*, **2008**, 135, 123-31	6.6	44
97	Opinion: Standardizing the definition of gene drive. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 30864-30867	11.5	38
96	Assessment of a Split Homing Based Gene Drive for Efficient Knockout of Multiple Genes. *G3: Genes, Genomes, Genetics*, **2020**, 10, 827-837	3.2	38
95	Gene editing technologies and applications for insects. *Current Opinion in Insect Science*, **2018**, 28, 66-72	5.1	38
94	Visual-Olfactory Integration in the Human Disease Vector Mosquito Aedes aegypti. *Current Biology*, **2019**, 29, 2509-2516.e5	6.3	37
93	Broad dengue neutralization in mosquitoes expressing an engineered antibody. *PLoS Pathogens*, **2020**, 16, e1008103	7.6	36
92	Unraveling cis-regulatory mechanisms at the abdominal-A and Abdominal-B genes in the Drosophila bithorax complex. *Developmental Biology*, **2006**, 293, 294-304	3.1	36
91	Transcriptome profiling of Nasonia vitripennis testis reveals novel transcripts expressed from the selfish B chromosome, paternal sex ratio. *G3: Genes, Genomes, Genetics*, **2013**, 3, 1597-605	3.2	35
90	Core commitments for field trials of gene drive organisms. *Science*, **2020**, 370, 1417-1419	33.3	35
89	Gene Drive Strategies for Population Replacement **2016**, 169-200		33
88	Progress towards engineering gene drives for population control. *Journal of Experimental Biology*, **2020**, 223,	3	29
87	Programmable RNA Targeting Using CasRx in Flies. *CRISPR Journal*, **2020**, 3, 164-176	2.5	26
86	An Entry/Gateway cloning system for general expression of genes with molecular tags in Drosophila melanogaster. *BMC Cell Biology*, **2009**, 10, 8		26
85	Improved reference genome of the arboviral vector Aedes albopictus. *Genome Biology*, **2020**, 21, 215	18.3	26

84	Identification of germline transcriptional regulatory elements in Aedes aegypti. *Scientific Reports*, **2014**, 4, 3954	4.9	25
83	Active Genetic Neutralizing Elements for Halting or Deleting Gene Drives. *Molecular Cell*, **2020**, 80, 246-262.e4	17.6	25
82	Inherently confinable split-drive systems in Drosophila. *Nature Communications*, **2021**, 12, 1480	17.4	24
81	Winning the Tug-of-War Between Effector Gene Design and Pathogen Evolution in Vector Population Replacement Strategies. *Frontiers in Genetics*, **2019**, 10, 1072	4.5	24
80	Genome elimination mediated by gene expression from a selfish chromosome. *Science Advances*, **2020**, 6, eaaz9808	14.3	24
79	Highly Efficient Site-Specific Mutagenesis in Malaria Mosquitoes Using CRISPR. *G3: Genes, Genomes, Genetics*, **2018**, 8, 653-658	3.2	24
78	Male-Killing Spiroplasma Alters Behavior of the Dosage Compensation Complex during Drosophila melanogaster Embryogenesis. *Current Biology*, **2016**, 26, 1339-45	6.3	18
77	Live calcium imaging of Aedes aegypti neuronal tissues reveals differential importance of chemosensory systems for life-history-specific foraging strategies. *BMC Neuroscience*, **2019**, 20, 27	3.2	16
76	Unique sequence organization and small RNA expression of a "selfish" B chromosome. *Chromosoma* , **2017**, 126, 753-768	2.8	16
75	Germline mutagenesis of Nasonia vitripennis through ovarian delivery of CRISPR-Cas9 ribonucleoprotein. *Insect Molecular Biology*, **2020**, 29, 569-577	3.4	16
74	The Developmental Transcriptome of , a Major Worldwide Human Disease Vector. *G3: Genes, Genomes, Genetics*, **2020**, 10, 1051-1062	3.2	16
73	Modeling confinement and reversibility of threshold-dependent gene drive systems in spatially-explicit Aedes aegypti populations. *BMC Biology*, **2020**, 18, 50	7.3	15
72	Methods for the generation of heritable germline mutations in the disease vector Culex quinquefasciatus using clustered regularly interspaced short palindrome repeats-associated protein 9. *Insect Molecular Biology*, **2020**, 29, 214-220	3.4	15
71	A confinable home-and-rescue gene drive for population modification. *ELife*, **2021**, 10,	8.9	15
70	Sequence Expression of Supernumerary B Chromosomes: Function or Fluff?. *Genes*, **2019**, 10,	4.2	14
69	A typology of community and stakeholder engagement based on documented examples in the field of novel vector control. *PLoS Neglected Tropical Diseases*, **2019**, 13, e0007863	4.8	14
68	Suppressing mosquito populations with precision guided sterile males. *Nature Communications*, **2021**, 12, 5374	17.4	14
67	Identification of Genes Uniquely Expressed in the Germ-Line Tissues of the Jewel Wasp Nasonia vitripennis. *G3: Genes, Genomes, Genetics*, **2015**, 5, 2647-53	3.2	13

66	Vectored antibody gene delivery mediates long-term contraception. *Current Biology*, **2015**, 25, R820-2	6.3	12
65	Site-specific transgenesis of the Drosophila melanogaster Y-chromosome using CRISPR/Cas9. *Insect Molecular Biology*, **2019**, 28, 65-73	3.4	12
64	A drug-inducible sex-separation technique for insects. *Nature Communications*, **2020**, 11, 2106	17.4	11
63	The abdominal-B promoter tethering element mediates promoter-enhancer specificity at the Drosophila bithorax complex. *Fly*, **2007**, 1, 337-9	1.3	11
62	Sex ratio manipulation for insect population control. **2014**, 83-100		11
61	Combating mosquito-borne diseases using genetic control technologies. *Nature Communications*, **2021**, 12, 4388	17.4	11
60	A mosquito small RNA genomics resource reveals dynamic evolution and host responses to viruses and transposons. *Genome Research*, **2021**, 31, 512-528	9.7	11
59	Gene drives may be the next step towards sustainable control of malaria. *Pathogens and Global Health*, **2017**, 111, 399-400	3.1	10
58	Germline Cas9 Expression Yields Highly Efficient Genome Engineering in a Major Worldwide Disease Vector, Aedes aegypti		10
57	Improved Aedes aegypti mosquito reference genome assembly enables biological discovery and vector control		10
56	Development of a Confinable Gene-Drive System in the Human Disease Vector, Aedes aegypti		9
55	Engineered reciprocal chromosome translocations drive high threshold, reversible population replacement in Drosophila		8
54	A home and rescue gene drive efficiently spreads and persists in populations		8
53	Suppression of female fertility in with a CRISPR-targeted male-sterile mutation. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	8
52	Broad Dengue Neutralization in Mosquitoes Expressing an Engineered Antibody. *SSRN Electronic Journal*,	1	7
51	A Sensitive, Rapid, and Portable CasRx-based Diagnostic Assay for SARS-CoV-2 **2020**,		7
50	Interdisciplinary development of a standardized introduction to gene drives for lay audiences. *BMC Medical Research Methodology*, **2020**, 20, 273	4.7	6
49	Translating gene drive science to promote linguistic diversity in community and stakeholder engagement. *Global Public Health*, **2020**, 15, 1551-1565	3.5	6

48	Targeting female flight for genetic control of mosquitoes. *PLoS Neglected Tropical Diseases*, **2020**, 14, e0008876	4.8	6
47	A CRISPR endonuclease gene drive reveals two distinct mechanisms of inheritance bias		6
46	Embryo Microinjection and Transplantation Technique for Nasonia vitripennis Genome Manipulation. *Journal of Visualized Experiments*, **2017**,	1.6	5
45	Broad Dengue Neutralization in Mosquitoes Expressing an Engineered Antibody		5
44	Reply to SConcerns about the feasibility of using "precision guided sterile males" to control insectsS *Nature Communications*, **2019**, 10, 3955	17.4	4
43	Human attractive cues and mosquito host-seeking behavior. *Trends in Parasitology*, **2021**,	6.4	4
42	Genetically Encoded CRISPR Components Yield Efficient Gene Editing in the Invasive Pest. *CRISPR Journal*, **2021**, 4, 739-751	2.5	4
41	Overcoming evolved resistance to population-suppressing homing-based gene drives		4
40	Synthetically EngineeredMedeaGene Drive System in the Worldwide Crop Pest,D. suzukii		4
39	Can CRISPR-based gene drive be confined in the wild? A question for molecular and population biology		4
38	Inherently confinable split-drive systems in Drosophila		4
37	Engineered reproductively isolated species drive reversible population replacement. *Nature Communications*, **2021**, 12, 3281	17.4	4
36	Embryo Microinjection Techniques for Efficient Site-Specific Mutagenesis in Culex quinquefasciatus. *Journal of Visualized Experiments*, **2020**,	1.6	3
35	Diverse Defenses: A Perspective Comparing Dipteran Piwi-piRNA Pathways. *Cells*, **2020**, 9,	7.9	3
34	Live calcium imaging of Aedes aegypti neuronal tissues reveals differential importance of chemosensory systems for life-history-specific foraging strategies		3
33	Assessment of a split homing based gene drive for efficient knockout of multiple genes		3
32	Synergistic Coding of Carbon Dioxide and a Human Sweat Odorant in the Mosquito Brain		2
31	Modeling confinement and reversibility of threshold-dependent gene drive systems in spatially-explicit Aedes aegypti populations		2

30	Improved reference genome of the arboviral vector Aedes albopictus		2
29	Development of a Rapid and Sensitive CasRx-Based Diagnostic Assay for SARS-CoV-2. *ACS Sensors*, **2021**, 6, 3957-3966	9.2	2
28	Highly efficient site-specific mutagenesis in Malaria mosquitoes using CRISPR		2
27	An integrated mosquito small RNA genomics resource reveals dynamic evolution and host responses to viruses and transposons		2
26	Engineered Reproductively Isolated Species Drive Reversible Population Replacement		2
25	Engineered resistance to Zika virus in transgenic Ae. aegypti expressing a polycistronic cluster of synthetic miRNAs		2
24	The Developmental Transcriptome of Ae. albopictus, a Major Worldwide Human Disease Vector		2
23	Eliminating Mosquitoes with Precision Guided Sterile Males		2
22	Eliminating Mosquitoes with Precision Guided Sterile Males		2
21	Parasitic nematode fatty acid- and retinol-binding proteins compromise host immunity by interfering with host lipid signaling pathways		2
20	Oxitec and MosquitoMate in the United States: lessons for the future of gene drive mosquito control. *Pathogens and Global Health*, **2021**, 115, 365-376	3.1	2
19	Transgenic refractory Aedes aegypti lines are resistant to multiple serotypes of dengue virus.. *Scientific Reports*, **2021**, 11, 23865	4.9	1
18	Programmable RNA Targeting using CasRx in Flies		1
17	Spatial control of gene expression in flies using bacterially derived binary transactivation systems		1
16	Parasitic nematode fatty acid- and retinol-binding proteins compromise host immunity by interfering with host lipid signaling pathways. *PLoS Pathogens*, **2021**, 17, e1010027	7.6	1
15	Germline mutagenesis ofNasonia vitripennisthrough ovarian delivery of CRISPR-Cas9 ribonucleoprotein		1
14	Genome Elimination Mediated by Gene Expression from a Selfish Chromosome		1
13	Mechanistically comparing reproductive manipulations caused by selfish chromosomes and bacterial symbionts. *Heredity*, **2021**, 126, 707-716	3.6	1

12	Spatial control of gene expression in flies using bacterially derived binary transactivation systems. *Insect Molecular Biology*, **2021**, 30, 461-471	3.4	1
11	Temperature-Inducible Precision Guided Sterile Insect Technique		1
10	Ubiquitous and Tissue-specific RNA Targeting in Drosophila Melanogaster using CRISPR/CasRx. *Journal of Visualized Experiments*, **2021**,	1.6	1
9	CRISPR Diagnostics: Advances toward the Point of Care.. *Biochemistry*, **2022**,	3.2	1
8	California ResidentsSPerceptions of Gene Drive Systems to Control Mosquito-Borne Disease.. *Frontiers in Bioengineering and Biotechnology*, **2022**, 10, 848707	5.8	1
7	A day in the life of a mosquito insectary team: pushing for solutions to mosquito-borne diseases. *Lab Animal*, **2020**, 49, 241-243	0.4	0
6	Exploiting a Y chromosome-linked Cas9 for sex selection and gene drive. *Nature Communications*, **2021**, 12, 7202	17.4	0
5	CRISPR-Mediated Genome Engineering in Aedes aegypti. *Methods in Molecular Biology*, **2022**, 23-51	1.4	0
4	Broad dengue neutralization in mosquitoes expressing an engineered antibody **2020**, 16, e1008103		
3	Broad dengue neutralization in mosquitoes expressing an engineered antibody **2020**, 16, e1008103		
2	Broad dengue neutralization in mosquitoes expressing an engineered antibody **2020**, 16, e1008103		
1	Broad dengue neutralization in mosquitoes expressing an engineered antibody **2020**, 16, e1008103		