Omar Akbari

List of Publications by Year
in descending order

91 papers	5,400 citations	94269 37 h-index	118652 62 g-index
132 all docs	132 docs citations	132 times ranked	4169 citing authors

#	Article	IF	Citations
1	Improved reference genome of Aedes aegypti informs arbovirus vector control. Nature, 2018, 563, 501-507.	13.7	426
2	Cheating evolution: engineering gene drives to manipulate the fate of wild populations. Nature Reviews Genetics, 2016, 17, 146-159.	7.7	381
3	Safeguarding gene drive experiments in the laboratory. Science, 2015, 349, 927-929.	6.0	254
4	Malaria eradication within a generation: ambitious, achievable, and necessary. Lancet, The, 2019, 394, 1056-1112.	6.3	240
5	Mapping a multiplexed zoo of mRNA expression. Development (Cambridge), 2016, 143, 3632-3637.	1.2	198
6	The Developmental Transcriptome of the Mosquito <i>Aedes aegypti</i>, an Invasive Species and Major Arbovirus Vector. G3: Genes, Genomes, Genetics, 2013, 3, 1493-1509.	0.8	189
7	Transforming insect population control with precision guided sterile males with demonstration inÂflies. Nature Communications, 2019, 10, 84.	5.8	160
8	Development of a confinable gene drive system in the human disease vector Aedes aegypti. ELife, 2020, 9, .	2.8	156
9	Germline Cas9 expression yields highly efficient genome engineering in a major worldwide disease vector, <i>Aedes aegypti</i>. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10540-E10549.	3.3	153
10	A Synthetic Gene Drive System for Local, Reversible Modification and Suppression of Insect Populations. Current Biology, 2013, 23, 671-677.	1.8	150
11	Overcoming evolved resistance to population-suppressing homing-based gene drives. Scientific Reports, 2017, 7, 3776.	1.6	142
12	Synthetically engineered <i>Medea</i> gene drive system in the worldwide crop pest <i>Drosophila suzukii</i>. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4725-4730.	3.3	109
13	Novel Synthetic <i>Medea</i> Selfish Genetic Elements Drive Population Replacement in <i>Drosophila</i>; a Theoretical Exploration of <i>Medea</i>-Dependent Population Suppression. ACS Synthetic Biology, 2014, 3, 915-928.	1.9	98
14	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.	3.3	94
15	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.	3.3	92
16	Standardizing the definition of gene drive. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30864-30867.	3.3	88
17	Engineered resistance to Zika virus in transgenic <i>Aedes aegypti</i> 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.	3.3	83
18	Modulation of Host Learning in Aedes aegypti Mosquitoes. Current Biology, 2018, 28, 333-344.e8.	1.8	82

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19	Combating mosquito-borne diseases using genetic control technologies. Nature Communications, 2021, 12, 4388.	5.8	76
20	Generation of heritable germline mutations in the jewel wasp Nasonia vitripennis using CRISPR/Cas9. Scientific Reports, 2017, 7, 901.	1.6	74
21	Rules of the road for insect gene drive research and testing. Nature Biotechnology, 2017, 35, 716-718.	9.4	74
22	Suppressing mosquito populations with precision guided sterile males. Nature Communications, 2021, 12, 5374.	5.8	73
23	Engineered Reciprocal Chromosome Translocations Drive High Threshold, Reversible Population Replacement in Drosophila. ACS Synthetic Biology, 2018, 7, 1359-1370.	1.9	72
24	Can CRISPR-Based Gene Drive Be Confined in the Wild? A Question for Molecular and Population Biology. ACS Chemical Biology, 2018, 13, 424-430.	1.6	71
25	Broad dengue neutralization in mosquitoes expressing an engineered antibody. PLoS Pathogens, 2020, 16, e1008103.	2.1	69
26	Assessment of a Split Homing Based Gene Drive for Efficient Knockout of Multiple Genes. G3: Genes, Genomes, Genetics, 2020, 10, 827-837.	0.8	67
27	Core commitments for field trials of gene drive organisms. Science, 2020, 370, 1417-1419.	6.0	67
28	Gene editing technologies and applications for insects. Current Opinion in Insect Science, 2018, 28, 66-72.	2.2	66
29	Improved reference genome of the arboviral vector Aedes albopictus. Genome Biology, 2020, 21, 215.	3.8	65
30	Visual-Olfactory Integration in the Human Disease Vector Mosquito Aedes aegypti. Current Biology, 2019, 29, 2509-2516.e5.	1.8	64
31	Programmable RNA Targeting Using CasRx in Flies. CRISPR Journal, 2020, 3, 164-176.	1.4	63
32	A novel promoter-tethering element regulates enhancer-driven gene expression at the bithorax complex in the Drosophila embryo. Development (Cambridge), 2008, 135, 123-131.	1.2	57
33	Inherently confinable split-drive systems in Drosophila. Nature Communications, 2021, 12, 1480.	5.8	55
34	Active Genetic Neutralizing Elements for Halting or Deleting Gene Drives. Molecular Cell, 2020, 80, 246-262.e4.	4.5	54
35	Progress towards engineering gene drives for population control. Journal of Experimental Biology, 2020, 223, .	0.8	51
36	Genome elimination mediated by gene expression from a selfish chromosome. Science Advances, 2020, 6, eaaz9808.	4.7	48

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37	Transcriptome Profiling of <i>Nasonia vitripennis</i> Testis Reveals Novel Transcripts Expressed from the Selfish B Chromosome, Paternal Sex Ratio. G3: Genes, Genomes, Genetics, 2013, 3, 1597-1605.	0.8	45
38	A confinable home-and-rescue gene drive for population modification. ELife, 2021, 10, .	2.8	42
39	Gene Drive Strategies for Population Replacement. , 2016, , 169-200.		40
40	Winning the Tug-of-War Between Effector Gene Design and Pathogen Evolution in Vector Population Replacement Strategies. Frontiers in Genetics, 2019, 10, 1072.	1.1	39
41	Unraveling cis-regulatory mechanisms at the abdominal-A and Abdominal-B genes in the Drosophila bithorax complex. Developmental Biology, 2006, 293, 294-304.	0.9	38
42	Germline mutagenesis of <i>Nasonia vitripennis</i> through ovarian delivery of <scp>CRISPRâ€Cas9</scp> ribonucleoprotein. Insect Molecular Biology, 2020, 29, 569-577.	1.0	36
43	Identification of germline transcriptional regulatory elements in Aedes aegypti. Scientific Reports, 2014, 4, 3954.	1.6	35
44	Development of a Rapid and Sensitive CasRx-Based Diagnostic Assay for SARS-CoV-2. ACS Sensors, 2021, 6, 3957-3966.	4.0	35
45	Highly Efficient Site-Specific Mutagenesis in Malaria Mosquitoes Using CRISPR. G3: Genes, Genomes, Genetics, 2018, 8, 653-658.	0.8	34
46	Suppression of female fertility in <i>Aedes aegypti</i> with a CRISPR-targeted male-sterile mutation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	32
47	An Entry/GatewayÂ® cloning system for general expression of genes with molecular tags in Drosophila melanogaster. BMC Cell Biology, 2009, 10, 8.	3.0	31
48	The Developmental Transcriptome of <i>Aedes albopictus</i>, a Major Worldwide Human Disease Vector. G3: Genes, Genomes, Genetics, 2020, 10, 1051-1062.	0.8	30
49	A mosquito small RNA genomics resource reveals dynamic evolution and host responses to viruses and transposons. Genome Research, 2021, 31, 512-528.	2.4	29
50	Human attractive cues and mosquito host-seeking behavior. Trends in Parasitology, 2022, 38, 246-264.	1.5	29
51	Male-Killing Spiroplasma Alters Behavior of the Dosage Compensation Complex during Drosophila melanogaster Embryogenesis. Current Biology, 2016, 26, 1339-1345.	1.8	27
52	Modeling confinement and reversibility of threshold-dependent gene drive systems in spatially-explicit Aedes aegypti populations. BMC Biology, 2020, 18, 50.	1.7	27
53	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.	1.3	24
54	Unique sequence organization and small RNA expression of a â€œselfishâ€• B chromosome. Chromosoma, 2017, 126, 753-768.	1.0	23

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55	Sequence Expression of Supernumerary B Chromosomes: Function or Fluff?. Genes, 2019, 10, 123.	1.0	23
56	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.	0.8	21
57	Engineered reproductively isolated species drive reversible population replacement. Nature Communications, 2021, 12, 3281.	5.8	21
58	Siteâ€specific transgenesis of the <i>Drosophila melanogaster </i>Yâ€chromosome using CRISPR/Cas9. Insect Molecular Biology, 2019, 28, 65-73.	1.0	20
59	Methods for the generation of heritable germline mutations in the disease vector <i>Culex quinquefasciatus</i> using clustered regularly interspaced short palindrome repeatsâ€associated protein 9. Insect Molecular Biology, 2020, 29, 214-220.	1.0	19
60	A drug-inducible sex-separation technique for insects. Nature Communications, 2020, 11, 2106.	5.8	19
61	Targeting female flight for genetic control of mosquitoes. PLoS Neglected Tropical Diseases, 2020, 14, e0008876.	1.3	17
62	Identification of Genes Uniquely Expressed in the Germ-Line Tissues of the Jewel Wasp Nasonia vitripennis. G3: Genes, Genomes, Genetics, 2015, 5, 2647-2653.	0.8	16
63	Oxitec and MosquitoMate in the United States: lessons for the future of gene drive mosquito control. Pathogens and Global Health, 2021, 115, 365-376.	1.0	16
64	Vectored antibody gene delivery mediates long-term contraception. Current Biology, 2015, 25, R820-R822.	1.8	14
65	Gene drives may be the next step towards sustainable control of malaria. Pathogens and Global Health, 2017, 111, 399-400.	1.0	14
66	Embryo Microinjection Techniques for Efficient Site-Specific Mutagenesis in Culex quinquefasciatus. Journal of Visualized Experiments, 2020, , .	0.2	13
67	The Abdominal-B Promoter Tethering Element Mediates Promoter-Enhancer Specificity at the Drosophila Bithorax Complex. Fly, 2007, 1, 337-339.	0.9	12
68	Sex ratio manipulation for insect population control.. , 2014, , 83-100.		12
69	Temperature-Inducible Precision-Guided Sterile Insect Technique. CRISPR Journal, 2021, , .	1.4	12
70	Reply to â€˜Concerns about the feasibility of using â€œprecision guided sterile malesâ€•to control insectsâ€™. Nature Communications, 2019, 10, 3955.	5.8	11
71	Embryo Microinjection and Transplantation Technique for Nasonia vitripennis Genome Manipulation. Journal of Visualized Experiments, 2017, , .	0.2	10
72	Diverse Defenses: A Perspective Comparing Dipteran Piwi-piRNA Pathways. Cells, 2020, 9, 2180.	1.8	10

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73	Genetically Encoded CRISPR Components Yield Efficient Gene Editing in the Invasive Pest <i>Drosophila suzukii</i>. CRISPR Journal, 2021, 4, 739-751.	1.4	10
74	Interdisciplinary development of a standardized introduction to gene drives for lay audiences. BMC Medical Research Methodology, 2020, 20, 273.	1.4	9
75	Exploiting a Y chromosome-linked Cas9 for sex selection and gene drive. Nature Communications, 2021, 12, 7202.	5.8	9
76	Transgenic refractory Aedes aegypti lines are resistant to multiple serotypes of dengue virus. Scientific Reports, 2021, 11, 23865.	1.6	8
77	Broad Dengue Neutralization in Mosquitoes Expressing an Engineered Antibody. SSRN Electronic Journal, 0, , .	0.4	7
78	California Residentsâ€™ Perceptions of Gene Drive Systems to Control Mosquito-Borne Disease. Frontiers in Bioengineering and Biotechnology, 2022, 10, 848707.	2.0	7
79	Translating gene drive science to promote linguistic diversity in community and stakeholder engagement. Global Public Health, 2020, 15, 1551-1565.	1.0	6
80	Ubiquitous and Tissue-specific RNA Targeting in Drosophila Melanogaster using CRISPR/CasRx. Journal of Visualized Experiments, 2021, , .	0.2	6
81	Parasitic nematode fatty acid- and retinol-binding proteins compromise host immunity by interfering with host lipid signaling pathways. PLoS Pathogens, 2021, 17, e1010027.	2.1	6
82	CRISPR Diagnostics: Advances toward the Point of Care. Biochemistry, 2023, 62, 3488-3492.	1.2	6
83	Spatial control of gene expression in flies using bacterially derived binary transactivation systems. Insect Molecular Biology, 2021, 30, 461-471.	1.0	4
84	Pupal and Adult Injections for RNAi and CRISPR Gene Editing in Nasonia vitripennis. Journal of Visualized Experiments, 2020, , .	0.2	3
85	Mechanistically comparing reproductive manipulations caused by selfish chromosomes and bacterial symbionts. Heredity, 2021, 126, 707-716.	1.2	2
86	A day in the life of a mosquito insectary team: pushing for solutions to mosquito-borne diseases. Lab Animal, 2020, 49, 241-243.	0.2	1
87	Scaleâ€typeâ€specific requirement for the mosquito <i>Aedes aegypti</i> <scp> <i>Spindleâ€F</i> </scp> homologue by regulating microtubule organization. Insect Molecular Biology, 2022, 31, 216-224.	1.0	0
88	Broad dengue neutralization in mosquitoes expressing an engineered antibody. , 2020, 16, e1008103.		0
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91	Broad dengue neutralization in mosquitoes expressing an engineered antibody. , 2020, 16, e1008103.		0