Aravind Asokan

List of Publications by Year
in descending order

62 papers	5,060 citations	147801 31 h-index	128289 60 g-index
63 all docs	63 docs citations	63 times ranked	6541 citing authors

#	Article	IF	Citations
1	In vivo genome editing improves muscle function in a mouse model of Duchenne muscular dystrophy. Science, 2016, 351, 403-407.	12.6	957
2	Adeno-associated Virus Serotypes: Vector Toolkit for Human Gene Therapy. Molecular Therapy, 2006, 14, 316-327.	8.2	744
3	The AAV Vector Toolkit: Poised at the Clinical Crossroads. Molecular Therapy, 2012, 20, 699-708.	8.2	388
4	Long-term evaluation of AAV-CRISPR genome editing for Duchenne muscular dystrophy. Nature Medicine, 2019, 25, 427-432.	30.7	303
5	Reengineering a receptor footprint of adeno-associated virus enables selective and systemic gene transfer to muscle. Nature Biotechnology, 2010, 28, 79-82.	17.5	220
6	Terminal N-Linked Galactose Is the Primary Receptor for Adeno-associated Virus 9. Journal of Biological Chemistry, 2011, 286, 13532-13540.	3.4	213
7	Adeno-Associated Virus Type 2 Contains an Integrin Î±5Î²1 Binding Domain Essential for Viral Cell Entry. Journal of Virology, 2006, 80, 8961-8969.	3.4	164
8	Structure-guided evolution of antigenically distinct adeno-associated virus variants for immune evasion. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E4812-E4821.	7.1	152
9	Biology of adeno-associated viral vectors in the central nervous system. Frontiers in Molecular Neuroscience, 2014, 7, 76.	2.9	137
10	Primary Cilia Signaling Shapes the Development of Interneuronal Connectivity. Developmental Cell, 2017, 42, 286-300.e4.	7.0	90
11	Tissue-Dependent Expression and Translation of Circular RNAs with Recombinant AAV Vectors InÂVivo. Molecular Therapy - Nucleic Acids, 2018, 13, 89-98.	5.1	89
12	The NIH Somatic Cell Genome Editing program. Nature, 2021, 592, 195-204.	27.8	84
13	Engraftment of a Galactose Receptor Footprint onto Adeno-associated Viral Capsids Improves Transduction Efficiency. Journal of Biological Chemistry, 2013, 288, 28814-28823.	3.4	77
14	Rescuing AAV gene transfer from neutralizing antibodies with an IgG-degrading enzyme. JCI Insight, 2020, 5, .	5.0	77
15	Intravital imaging of mouse embryos. Science, 2020, 368, 181-186.	12.6	70
16	Characterization of the Adeno-Associated Virus 1 and 6 Sialic Acid Binding Site. Journal of Virology, 2016, 90, 5219-5230.	3.4	63
17	Mapping the Structural Determinants Required for AAVrh.10 Transport across the Blood-Brain Barrier. Molecular Therapy, 2018, 26, 510-523.	8.2	60
18	Hepatocytic expression of human sodium-taurocholate cotransporting polypeptide enables hepatitis B virus infection of macaques. Nature Communications, 2017, 8, 2146.	12.8	59

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19	CNS-restricted Transduction and CRISPR/Cas9-mediated Gene Deletion with an Engineered AAV Vector. Molecular Therapy - Nucleic Acids, 2016, 5, e338.	5.1	56
20	Transgenic mice for in vivo epigenome editing with CRISPR-based systems. Nature Methods, 2021, 18, 965-974.	19.0	56
21	Modulation of Sialic Acid Dependence Influences the Central Nervous System Transduction Profile of Adeno-associated Viruses. Journal of Virology, 2019, 93, .	3.4	55
22	Human Galectin 3 Binding Protein Interacts with Recombinant Adeno-Associated Virus Type 6. Journal of Virology, 2012, 86, 6620-6631.	3.4	52
23	Glymphatic fluid transport controls paravascular clearance of AAV vectors from the brain. JCI Insight, 2016, 1, e88034.	5.0	52
24	Strategies to circumvent humoral immunity to adeno-associated viral vectors. Expert Opinion on Biological Therapy, 2015, 15, 845-855.	3.1	49
25	Development of Patient-specific AAV Vectors After Neutralizing Antibody Selection for Enhanced Muscle Gene Transfer. Molecular Therapy, 2016, 24, 53-65.	8.2	45
26	Gangliosides are essential endosomal receptors for quasi-enveloped and naked hepatitis A virus. Nature Microbiology, 2020, 5, 1069-1078.	13.3	45
27	Cellular transduction mechanisms of adeno-associated viral vectors. Current Opinion in Virology, 2016, 21, 54-60.	5.4	42
28	AAV Gene Therapy for MPS1-associated Corneal Blindness. Scientific Reports, 2016, 6, 22131.	3.3	40
29	Coevolution of Adeno-associated Virus Capsid Antigenicity and Tropism through a Structure-Guided Approach. Journal of Virology, 2020, 94, .	3.4	38
30	Engineering highly efficient backsplicing and translation of synthetic circRNAs. Molecular Therapy - Nucleic Acids, 2021, 23, 821-834.	5.1	36
31	An siRNA Screen Identifies the U2 snRNP Spliceosome as a Host Restriction Factor for Recombinant Adeno-associated Viruses. PLoS Pathogens, 2015, 11, e1005082.	4.7	35
32	Multiple Roles for Sialylated Glycans in Determining the Cardiopulmonary Tropism of Adeno-Associated Virus 4. Journal of Virology, 2013, 87, 13206-13213.	3.4	32
33	Engineering AAV receptor footprints for gene therapy. Current Opinion in Virology, 2016, 18, 89-96.	5.4	32
34	An Emerging Adeno-Associated Viral Vector Pipeline for Cardiac Gene Therapy. Human Gene Therapy, 2013, 24, 906-913.	2.7	31
35	The membrane associated accessory protein is an adeno-associated viral egress factor. Nature Communications, 2021, 12, 6239.	12.8	30
36	Physical positioning markedly enhances brain transduction after intrathecal AAV9 infusion. Science Advances, 2018, 4, eaau9859.	10.3	28

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37	Full-length dystrophin restoration via targeted exon integration by AAV-CRISPR in a humanized mouse model of Duchenne muscular dystrophy. Molecular Therapy, 2021, 29, 3243-3257.	8.2	27
38	Controlling mRNA stability and translation with the CRISPR endoribonuclease Csy4. Rna, 2015, 21, 1921-1930.	3.5	23
39	Tyrosine Cross-Linking Reveals Interfacial Dynamics in Adeno-Associated Viral Capsids during Infection. ACS Chemical Biology, 2012, 7, 1059-1066.	3.4	22
40	Generation and characterization of anti-Adeno-associated virus serotype 8 (AAV8) and anti-AAV9 monoclonal antibodies. Journal of Virological Methods, 2016, 236, 105-110.	2.1	22
41	Ring finger protein 121 is a potent regulator of adeno-associated viral genome transcription. PLoS Pathogens, 2019, 15, e1007988.	4.7	22
42	Systemic and Persistent Muscle Gene Expression in Rhesus Monkeys with a Liver De-Targeted Adeno-Associated Virus Vector. Human Gene Therapy, 2017, 28, 385-391.	2.7	21
43	Epigenetic Silencing of Recombinant Adeno-associated Virus Genomes by NP220 and the HUSH Complex. Journal of Virology, 2022, 96, JVI0203921.	3.4	20
44	Inducing circular RNA formation using the CRISPR endoribonuclease Csy4. Rna, 2017, 23, 619-627.	3.5	19
45	Functional Analysis of the Putative Integrin Recognition Motif on Adeno-associated Virus 9. Journal of Biological Chemistry, 2015, 290, 1496-1504.	3.4	18
46	The Golgi Calcium ATPase Pump Plays an Essential Role in Adeno-associated Virus Trafficking and Transduction. Journal of Virology, 2020, 94, .	3.4	17
47	Mapping and Engineering Functional Domains of the Assembly-Activating Protein of Adeno-associated Viruses. Journal of Virology, 2018, 92, .	3.4	15
48	Optimizing delivery for efficient cardiac reprogramming. Biochemical and Biophysical Research Communications, 2020, 533, 9-16.	2.1	15
49	Safe and EffectiveIn VivoTargeting and Gene Editing in Hematopoietic Stem Cells: Strategies for Accelerating Development. Human Gene Therapy, 2021, 32, 31-42.	2.7	15
50	Reengineered AAV vectors: old dog, new tricks. Discovery Medicine, 2010, 9, 399-403.	0.5	15
51	A CRISPR Screen Identifies the Cell Polarity Determinant Crumbs 3 as an Adeno-associated Virus Restriction Factor in Hepatocytes. Journal of Virology, 2019, 93, .	3.4	14
52	Unique Glycan Signatures Regulate Adeno-Associated Virus Tropism in the Developing Brain. Journal of Virology, 2015, 89, 3976-3987.	3.4	13
53	Receptor Switching in Newly Evolved Adeno-associated Viruses. Journal of Virology, 2021, 95, e0058721.	3.4	12
54	Structurally Mapping Antigenic Epitopes of Adeno-associated Virus 9: Development of Antibody Escape Variants. Journal of Virology, 2022, 96, JVI0125121.	3.4	11

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55	Adeno-Associated Virus-Mediated Gene Therapy in the Mashlool, Atp1a3^{Mashl/+}, Mouse Model of Alternating Hemiplegia of Childhood. Human Gene Therapy, 2021, 32, 405-419.	2.7	9
56	Targeted Delivery for Cardiac Regeneration: Comparison of Intra-coronary Infusion and Intra-myocardial Injection in Porcine Hearts. Frontiers in Cardiovascular Medicine, 2022, 9, 833335.	2.4	7
57	Vaccine-Mediated Inhibition of the Transporter Associated with Antigen Processing Is Insufficient To Induce Major Histocompatibility Complex E-Restricted CD8⁺T Cells in Nonhuman Primates. Journal of Virology, 2019, 93, .	3.4	5
58	CRISPR genome editing in stem cells turns to gold. Nature Materials, 2019, 18, 1038-1039.	27.5	4
59	Characterization of liver GSD IX Î³2 pathophysiology in a novel Phkg2/ mouse model. Molecular Genetics and Metabolism, 2021, 133, 269-276.	1.1	4
60	Strategies for the Cytosolic Delivery of Macromolecules: An Overview. , 0, , 279-296.		1
61	AAV-CNS matters turn from gray to white. Molecular Therapy, 2021, 29, 1659-1660.	8.2	1
62	Abstract 12181: Targeted Intra-Coronary Delivery versus Intra-Myocardial Injection of Therapeutics for Myocardial Recovery: A Nanoparticle Image Guided Porcine Study. Circulation, 2021, 144, .	1.6	0