David V Schaffer

List of Publications by Year
in descending order

170 papers	16,249 citations	18436 62 h-index	18075 120 g-index
189 all docs	189 docs citations	189 times ranked	20887 citing authors

#	Article	IF	Citations
1	A Designer AAV Variant Permits Efficient Retrograde Access to Projection Neurons. Neuron, 2016, 92, 372-382.	3.8	1,007
2	Substrate Modulus Directs Neural Stem Cell Behavior. Biophysical Journal, 2008, 95, 4426-4438.	0.2	947
3	Sonic hedgehog regulates adult neural progenitor proliferation in vitro and in vivo. Nature Neuroscience, 2003, 6, 21-27.	7.1	741
4	Engineering adeno-associated viruses for clinical gene therapy. Nature Reviews Genetics, 2014, 15, 445-451.	7.7	641
5	The influence of hydrogel modulus on the proliferation and differentiation of encapsulated neural stem cells. Biomaterials, 2009, 30, 4695-4699.	5.7	577
6	In Vivoâ€“Directed Evolution of a New Adeno-Associated Virus for Therapeutic Outer Retinal Gene Delivery from the Vitreous. Science Translational Medicine, 2013, 5, 189ra76.	5.8	554
7	Directed evolution of adeno-associated virus yields enhanced gene delivery vectors. Nature Biotechnology, 2006, 24, 198-204.	9.4	457
8	Optogenetic protein clustering and signaling activation in mammalian cells. Nature Methods, 2013, 10, 249-252.	9.0	397
9	PI3K/Akt and CREB regulate adult neural hippocampal progenitor proliferation and differentiation. Developmental Neurobiology, 2007, 67, 1348-1361.	1.5	383
10	Single-cell western blotting. Nature Methods, 2014, 11, 749-755.	9.0	372
11	A fully defined and scalable 3D culture system for human pluripotent stem cell expansion and differentiation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E5039-48.	3.3	281
12	Inner Limiting Membrane Barriers to AAV-mediated Retinal Transduction From the Vitreous. Molecular Therapy, 2009, 17, 2096-2102.	3.7	275
13	Biogenic gas nanostructures as ultrasonic molecular reporters. Nature Nanotechnology, 2014, 9, 311-316.	15.6	260
14	Quantitative Magnetic Particle Imaging Monitors the Transplantation, Biodistribution, and Clearance of Stem Cells In Vivo. Theranostics, 2016, 6, 291-301.	4.6	252
15	Nox2 redox signaling maintains essential cell populations in the brain. Nature Chemical Biology, 2011, 7, 106-112.	3.9	248
16	CRISPR-guided DNA polymerases enable diversification of all nucleotides in a tunable window. Nature, 2018, 560, 248-252.	13.7	231
17	Designing synthetic materials to control stem cell phenotype. Current Opinion in Chemical Biology, 2007, 11, 381-387.	2.8	208
18	Magnetic Particle Imaging tracks the long-term fate of in vivo neural cell implants with high image contrast. Scientific Reports, 2015, 5, 14055.	1.6	202

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19	Scaffolds based on degradable alginate hydrogels and poly(lactide-co-glycolide) microspheres for stem cell culture. Biomaterials, 2007, 28, 5518-5525.	5.7	194
20	Astrocytes regulate adult hippocampal neurogenesis through ephrin-B signaling. Nature Neuroscience, 2012, 15, 1399-1406.	7.1	194
21	Genetically encoded reporters for hyperpolarized xenon magnetic resonance imaging. Nature Chemistry, 2014, 6, 629-634.	6.6	186
22	Intravitreal Injection of AAV2 Transduces Macaque Inner Retina. , 2011, 52, 2775.		177
23	Rho GTPases Mediate the Mechanosensitive Lineage Commitment of Neural Stem Cells. Stem Cells, 2011, 29, 1886-1897.	1.4	176
24	A Novel Adeno-Associated Viral Variant for Efficient and Selective Intravitreal Transduction of Rat MÃ¼ller Cells. PLoS ONE, 2009, 4, e7467.	1.1	176
25	Adeno-associated virus effectively mediates conditional gene modification in the brain. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 2320-2325.	3.3	175
26	The delivery challenge: fulfilling the promise of therapeutic genome editing. Nature Biotechnology, 2020, 38, 845-855.	9.4	163
27	Molecular Evolution of Adeno-associated Virus for Enhanced Glial Gene Delivery. Molecular Therapy, 2009, 17, 2088-2095.	3.7	160
28	Kinetic analysis and modeling of firefly luciferase as a quantitative reporter gene in live mammalian cells. Biotechnology and Bioengineering, 2004, 86, 827-834.	1.7	154
29	Designer Gene Delivery Vectors: Molecular Engineering and Evolution of Adeno-Associated Viral Vectors for Enhanced Gene Transfer. Pharmaceutical Research, 2008, 25, 489-99.	1.7	149
30	Directed evolution of adeno-associated virus to an infectious respiratory virus. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 3865-3870.	3.3	149
31	Presentation Counts: Microenvironmental Regulation of Stem Cells by Biophysical and Material Cues. Annual Review of Cell and Developmental Biology, 2010, 26, 533-556.	4.0	149
32	DNA Shuffling of Adeno-associated Virus Yields Functionally Diverse Viral Progeny. Molecular Therapy, 2008, 16, 1703-1709.	3.7	146
33	Molecular Engineering of Viral Gene Delivery Vehicles. Annual Review of Biomedical Engineering, 2008, 10, 169-194.	5.7	140
34	Adeno-associated virus (AAV) vectors in cancer gene therapy. Journal of Controlled Release, 2016, 240, 287-301.	4.8	137
35	PEG conjugation moderately protects adeno-associated viral vectors against antibody neutralization. Biotechnology and Bioengineering, 2005, 92, 24-34.	1.7	134
36	At Light Speed: Advances in Optogenetic Systems for Regulating Cell Signaling and Behavior. Annual Review of Chemical and Biomolecular Engineering, 2017, 8, 13-39.	3.3	133

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37	Soft microenvironments promote the early neurogenic differentiation but not self-renewal of human pluripotent stem cells. Integrative Biology (United Kingdom), 2012, 4, 1049-1058.	0.6	132
38	The Sonic Hedgehog Signaling System as a Bistable Genetic Switch. Biophysical Journal, 2004, 86, 2748-2757.	0.2	129
39	In vivo genome editing improves motor function and extends survival in a mouse model of ALS. Science Advances, 2017, 3, eaar3952.	4.7	127
40	Wnt Regulates Proliferation and Neurogenic Potential of MÃ¼ller Glial Cells via a Lin28/let-7 miRNA-Dependent Pathway in Adult Mammalian Retinas. Cell Reports, 2016, 17, 165-178.	2.9	124
41	Dynamics of Mechanosensitive Neural Stem Cell Differentiation. Stem Cells, 2017, 35, 497-506.	1.4	122
42	Long-distance axonal regeneration induced by CNTF gene transfer is impaired by axonal misguidance in the injured adult optic nerve. Neurobiology of Disease, 2013, 51, 202-213.	2.1	116
43	Directed Evolution of Adeno-associated Virus for Enhanced Gene Delivery and Gene Targeting in Human Pluripotent Stem Cells. Molecular Therapy, 2012, 20, 329-338.	3.7	113
44	Signal dynamics in Sonic hedgehog tissue patterning. Development (Cambridge), 2006, 133, 889-900.	1.2	107
45	A Hypothalamic Switch for REM and Non-REM Sleep. Neuron, 2018, 97, 1168-1176.e4.	3.8	106
46	Characterization of integrin engagement during defined human embryonic stem cell culture. FASEB Journal, 2010, 24, 1056-1065.	0.2	102
47	Adeno-Associated Virus Vectors and Neurological Gene Therapy. Neuroscientist, 2015, 21, 84-98.	2.6	101
48	Systemic attenuation of the TGF-Î² pathway by a single drug simultaneously rejuvenates hippocampal neurogenesis and myogenesis in the same old mammal. Oncotarget, 2015, 6, 11959-11978.	0.8	101
49	AAV Mediated GDNF Secretion From Retinal Glia Slows Down Retinal Degeneration in a Rat Model of Retinitis Pigmentosa. Molecular Therapy, 2011, 19, 1602-1608.	3.7	98
50	Multivalent ligands control stem cell behaviour in vitro and in vivo. Nature Nanotechnology, 2013, 8, 831-838.	15.6	97
51	Enhanced survival and engraftment of transplanted stem cells using growth factor sequestering hydrogels. Biomaterials, 2015, 47, 1-12.	5.7	97
52	Engineered hydrogels increase the post-transplantation survival of encapsulated hESC-derived midbrain dopaminergic neurons. Biomaterials, 2017, 136, 1-11.	5.7	97
53	Engineering Biomaterials for Synthetic Neural Stem Cell Microenvironments. Chemical Reviews, 2008, 108, 1787-1796.	23.0	95
54	Orthogonal control of expression mean and variance by epigenetic features at different genomic loci. Molecular Systems Biology, 2015, 11, 806.	3.2	95

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55	Genome Engineering Using Adeno-associated Virus: Basic and Clinical Research Applications. Molecular Therapy, 2016, 24, 458-464.	3.7	93
56	CRISPR-Cas9-Mediated Genome Editing Increases Lifespan and Improves Motor Deficits in a Huntingtonâ€™s Disease Mouse Model. Molecular Therapy - Nucleic Acids, 2019, 17, 829-839.	2.3	92
57	An Evolved Adeno-associated Viral Variant Enhances Gene Delivery and Gene Targeting in Neural Stem Cells. Molecular Therapy, 2011, 19, 667-675.	3.7	91
58	CRISPR-mediated Activation of Latent HIV-1 Expression. Molecular Therapy, 2016, 24, 499-507.	3.7	89
59	Efficient derivation of cortical glutamatergic neurons from human pluripotent stem cells: A model system to study neurotoxicity in Alzheimer's disease. Neurobiology of Disease, 2014, 62, 62-72.	2.1	84
60	Age-Associated Increase in BMP Signaling Inhibits Hippocampal Neurogenesis. Stem Cells, 2015, 33, 1577-1588.	1.4	83
61	Thermoreversible Hyaluronic Acidâ€PNIPAAm Hydrogel Systems for 3D Stem Cell Culture. Advanced Healthcare Materials, 2018, 7, e1800225.	3.9	83
62	CRISPR-READI: Efficient Generation of Knockin Mice by CRISPR RNP Electroporation and AAV Donor Infection. Cell Reports, 2019, 27, 3780-3789.e4.	2.9	73
63	CFTR gene transfer with AAV improves early cystic fibrosis pig phenotypes. JCI Insight, 2016, 1, e88728.	2.3	72
64	Targeted gene knock-in by homology-directed genome editing using Cas9 ribonucleoprotein and AAV donor delivery. Nucleic Acids Research, 2017, 45, e98-e98.	6.5	72
65	InÂVivo Selection of a Computationally Designed SCHEMA AAV Library Yields a Novel Variant for Infection of Adult Neural Stem Cells in the SVZ. Molecular Therapy, 2018, 26, 304-319.	3.7	72
66	In vivoâ€“directed evolution of adeno-associated virus in the primate retina. JCI Insight, 2020, 5, .	2.3	71
67	Construction of diverse adeno-associated viral libraries for directed evolution of enhanced gene delivery vehicles. Nature Protocols, 2006, 1, 701-706.	5.5	68
68	Developing Defined and Scalable 3D Culture Systems for Culturing Human Pluripotent Stem Cells at High Densities. Cellular and Molecular Bioengineering, 2014, 7, 172-183.	1.0	67
69	Engineering the AAV capsid to evade immune responses. Current Opinion in Biotechnology, 2019, 60, 99-103.	3.3	64
70	Computational Design of Antiviral RNA Interference Strategies That Resist Human Immunodeficiency Virus Escape. Journal of Virology, 2005, 79, 1645-1654.	1.5	62
71	Defined and Scalable Differentiation of Human Oligodendrocyte Precursors from Pluripotent Stem Cells in a 3D Culture System. Stem Cell Reports, 2017, 8, 1770-1783.	2.3	59
72	Development of a Low Bias Method for Characterizing Viral Populations Using Next Generation Sequencing Technology. PLoS ONE, 2010, 5, e13564.	1.1	58

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73	Biophysics and dynamics of natural and engineered stem cell microenvironments. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2010, 2, 49-64.	6.6	55
74	High-Throughput Toxicity and Phenotypic Screening of 3D Human Neural Progenitor Cell Cultures on a Microarray Chip Platform. Stem Cell Reports, 2016, 7, 970-982.	2.3	55
75	Selection of Novel Vesicular Stomatitis Virus Glycoprotein Variants from a Peptide Insertion Library for Enhanced Purification of Retroviral and Lentiviral Vectors. Journal of Virology, 2006, 80, 3285-3292.	1.5	52
76	The effect of multivalent Sonic hedgehog on differentiation of human embryonic stem cells into dopaminergic and GABAergic neurons. Biomaterials, 2014, 35, 941-948.	5.7	52
77	Efficient generation of hPSC-derived midbrain dopaminergic neurons in a fully defined, scalable, 3D biomaterial platform. Scientific Reports, 2017, 7, 40573.	1.6	51
78	Multivalency of Sonic Hedgehog Conjugated to Linear Polymer Chains Modulates Protein Potency. Bioconjugate Chemistry, 2008, 19, 806-812.	1.8	50
79	Neurogenesis and Neuroadaptation. NeuroMolecular Medicine, 2004, 5, 001-010.	1.8	48
80	Engineered Illumination Devices for Optogenetic Control of Cellular Signaling Dynamics. Cell Reports, 2020, 31, 107737.	2.9	47
81	hPSC-Derived Striatal Cells Generated Using a Scalable 3D Hydrogel Promote Recovery in a Huntington Disease Mouse Model. Stem Cell Reports, 2018, 10, 1481-1491.	2.3	46
82	HIV Evades RNA Interference Directed at TAR by an Indirect Compensatory Mechanism. Cell Host and Microbe, 2008, 4, 484-494.	5.1	44
83	Spatial organization of cellâ€adhesive ligands for advanced cell culture. Biotechnology Journal, 2013, 8, 1411-1423.	1.8	44
84	Immobilized sonic hedgehog N-terminal signaling domain enhances differentiation of bone marrow-derived mesenchymal stem cells. Journal of Biomedical Materials Research - Part A, 2007, 83A, 1200-1208.	2.1	41
85	Enhanced selective gene delivery to neural stem cells in vivo by an adeno-associated viral variant. Development (Cambridge), 2015, 142, 1885-1892.	1.2	41
86	Interrogating cellular fate decisions with high-throughput arrays of multiplexed cellular communities. Nature Communications, 2016, 7, 10309.	5.8	41
87	A Rationally Designed, General Strategy for Membrane Orientation of Photoinduced Electron Transfer-Based Voltage-Sensitive Dyes. ACS Chemical Biology, 2017, 12, 407-413.	1.6	40
88	In vivo hypermutation and continuous evolution. Nature Reviews Methods Primers, 2022, 2, .	11.8	39
89	Specific insertions of zinc finger domains into Gag-Pol yield engineered retroviral vectors with selective integration properties. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12475-12480.	3.3	38
90	Exploiting bacterial peptide display technology to engineer biomaterials for neural stem cell culture. Biomaterials, 2011, 32, 1484-1494.	5.7	37

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91	Challenging Regeneration to Transform Medicine. Stem Cells Translational Medicine, 2016, 5, 1-7.	1.6	37
92	The Spectrin-Actin-Based Periodic Cytoskeleton as a Conserved Nanoscale Scaffold and Ruler of the Neural Stem Cell Lineage. Cell Reports, 2018, 24, 1512-1522.	2.9	34
93	Recapitulating complex biological signaling environments using a multiplexed, DNA-patterning approach. Science Advances, 2020, 6, eaay5696.	4.7	34
94	Biophysical regulation of stem cell behavior within the niche. Stem Cell Research and Therapy, 2012, 3, 50.	2.4	33
95	Targeted Diversification in the S.Âcerevisiae Genome with CRISPR-Guided DNA Polymerase I. ACS Synthetic Biology, 2020, 9, 1911-1916.	1.9	33
96	Adeno-Associated Virus Vector for Central Nervous System Gene Therapy. Trends in Molecular Medicine, 2021, 27, 524-537.	3.5	33
97	scAAVengr, a transcriptome-based pipeline for quantitative ranking of engineered AAVs with single-cell resolution. ELife, 2021, 10, .	2.8	33
98	Progress and Prospects for Stem Cell Engineering. Annual Review of Chemical and Biomolecular Engineering, 2011, 2, 479-502.	3.3	31
99	The Expression Pattern of Systemically Injected AAV9 in the Developing Mouse Retina Is Determined by Age. Molecular Therapy, 2015, 23, 290-296.	3.7	31
100	Akt Increases Sox2 Expression in Adult Hippocampal Neural Progenitor Cells, but Increased Sox2 Does Not Promote Proliferation. Stem Cells and Development, 2011, 20, 1153-1161.	1.1	30
101	Light-inducible activation of target mRNA translation in mammalian cells. Chemical Communications, 2013, 49, 8338.	2.2	29
102	Î²-Catenin signaling dynamics regulate cell fate in differentiating neural stem cells. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28828-28837.	3.3	29
103	Chromatin accessibility at the HIV LTR promoter sets a threshold for NF-ÎºB mediated viral gene expression. Integrative Biology (United Kingdom), 2012, 4, 661.	0.6	27
104	Influence of hippocampal niche signals on neural stem cell functions during aging. Cell and Tissue Research, 2018, 371, 115-124.	1.5	27
105	Library selection and directed evolution approaches to engineering targeted viral vectors. Biotechnology and Bioengineering, 2007, 98, 515-524.	1.7	26
106	Angiomotin links ROCK and YAP signaling in mechanosensitive differentiation of neural stem cells. Molecular Biology of the Cell, 2020, 31, 386-396.	0.9	26
107	Pan-neuronal maturation but not neuronal subtype differentiation of adult neural stem cells is mechanosensitive. Scientific Reports, 2013, 3, 1817.	1.6	25
108	Microelastic mapping of the rat dentate gyrus. Royal Society Open Science, 2016, 3, 150702.	1.1	25

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109	Multivalent hyaluronic acid bioconjugates improve sFlt-1 activity inÂvitro. Biomaterials, 2016, 93, 95-105.	5.7	25
110	Highâ€throughput identification of factors promoting neuronal differentiation of human neural progenitor cells in microscale 3D cell culture. Biotechnology and Bioengineering, 2019, 116, 168-180.	1.7	25
111	Engineered viral vectors for functional interrogation, deconvolution, and manipulation of neural circuits. Current Opinion in Neurobiology, 2018, 50, 163-170.	2.0	24
112	High-Throughput Screening of Gene Function in Stem Cells Using Clonal Microarrays. Stem Cells, 2007, 25, 2928-2935.	1.4	22
113	High-Throughput, Library-Based Selection of a Murine Leukemia Virus Variant To Infect Nondividing Cells. Journal of Virology, 2006, 80, 8981-8988.	1.5	21
114	Egr1 is a 3D matrixâ€“specific mediator of mechanosensitive stem cell lineage commitment. Science Advances, 2022, 8, eabm4646.	4.7	20
115	Novel biomaterials to study neural stem cell mechanobiology and improve cell-replacement therapies. Current Opinion in Biomedical Engineering, 2017, 4, 13-20.	1.8	19
116	Dopaminergic Neurons Transplanted Using Cellâ€instructive Biomaterials Alleviate Parkinsonism in Rodents. Advanced Functional Materials, 2018, 28, 1804144.	7.8	19
117	Antiviral RNAi: Translating Science Towards Therapeutic Success. Pharmaceutical Research, 2011, 28, 2966-2982.	1.7	18
118	Biomaterial Microenvironments to Support the Generation of New Neurons in the Adult Brain. Stem Cells, 2014, 32, 1220-1229.	1.4	18
119	Understanding How Wnt Influences Destruction Complex Activity and Î²-Catenin Dynamics. IScience, 2018, 6, 13-21.	1.9	18
120	cAMP and EPAC Signaling Functionally Replace OCT4 During Induced Pluripotent Stem Cell Reprogramming. Molecular Therapy, 2015, 23, 952-963.	3.7	17
121	Engineering biomaterials to control the neural differentiation of stem cells. Brain Research Bulletin, 2019, 150, 50-60.	1.4	17
122	Enhanced preparation of adeno-associated viral vectors by using high hydrostatic pressure to selectively inactivate helper adenovirus. Biotechnology and Bioengineering, 2007, 97, 1170-1179.	1.7	15
123	Viral Packaging and Transduction of Adult Hippocampal Neural Progenitors. Methods in Molecular Biology, 2010, 621, 103-116.	0.4	15
124	Computational Models of HIV-1 Resistance to Gene Therapy Elucidate Therapy Design Principles. PLoS Computational Biology, 2010, 6, e1000883.	1.5	14
125	Challenges in nucleic acidâ€lipid films for transfection. AICHE Journal, 2013, 59, 3203-3213.	1.8	14
126	Multivalent Conjugates of Sonic Hedgehog Accelerate Diabetic Wound Healing. Tissue Engineering - Part A, 2015, 21, 2366-2378.	1.6	14

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127	Adeno-Associated Virusâ€“Mediated Delivery of CRISPRâ€“Cas Systems for Genome Engineering in Mammalian Cells. Cold Spring Harbor Protocols, 2016, 2016, pdb.prot086868.	0.2	14
128	Expansion of human pluripotent stem cells. Current Opinion in Chemical Engineering, 2017, 15, 24-35.	3.8	14
129	Combining Engineered Nucleases with Adeno-associated Viral Vectors for Therapeutic Gene Editing. Advances in Experimental Medicine and Biology, 2017, 1016, 29-42.	0.8	13
130	Adeno-associated virus-mediated delivery of CRISPR-Cas9 for genome editing in the central nervous system. Current Opinion in Biomedical Engineering, 2018, 7, 33-41.	1.8	13
131	Spatiomechanical Modulation of EphB4-Ephrin-B2 Signaling in Neural Stem Cell Differentiation. Biophysical Journal, 2018, 115, 865-873.	0.2	13
132	Gene Editing to Generate Versatile Human Pluripotent Stem Cell Reporter Lines for Analysis of Differentiation and Lineage Tracing. Stem Cells, 2019, 37, 1556-1566.	1.4	13
133	Mechanisms of action of hESC-secreted proteins that enhance human and mouse myogenesis. Aging, 2014, 6, 602-620.	1.4	13
134	Highâ€throughput combinatorial screening reveals interactions between signaling molecules that regulate adult neural stem cell fate. Biotechnology and Bioengineering, 2019, 116, 193-205.	1.7	12
135	In Vitro Culture and Analysis of Adult Hippocampal Neural Progenitors. Methods in Molecular Biology, 2010, 621, 65-87.	0.4	12
136	Development of quantitative PCR methods to analyse neural progenitor cell culture state. Biotechnology and Applied Biochemistry, 2006, 44, 1.	1.4	11
137	Proliferation versus Differentiation: Redefining Retinoic Acidâ€™s Role. Stem Cell Reports, 2018, 10, 1673-1675.	2.3	11
138	Quantitative stem cell imaging with magnetic particle imaging. , 2013, , .		10
139	AAVR-Displaying Interfaces: Serotype-Independent Adeno-Associated Virus Capture and Local Delivery Systems. Molecular Therapy - Nucleic Acids, 2019, 18, 432-443.	2.3	10
140	Optogenetic tools for cell biological applications. Journal of Thoracic Disease, 2017, 9, 4867-4870.	0.6	9
141	Screening for Neutralizing Antibodies Against Natural and Engineered AAV Capsids in Nonhuman Primate Retinas. Methods in Molecular Biology, 2018, 1715, 239-249.	0.4	9
142	Engineered AAV vectors for improved central nervous system gene delivery. Neurogenesis (Austin, Tex) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.5	8
143	A directed evolution approach to select for novel Adeno-associated virus capsids on an HIV-1 producer T cell line. Journal of Virological Methods, 2017, 250, 47-54.	1.0	8
144	High-throughput 3D screening for differentiation of hPSC-derived cell therapy candidates. Science Advances, 2020, 6, eaaz1457.	4.7	8

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145	Genome-wide activation screens to increase adeno-associated virus production. Molecular Therapy - Nucleic Acids, 2021, 26, 94-103.	2.3	8
146	Advanced Materials to Enhance Central Nervous System Tissue Modeling and Cell Therapy. Advanced Functional Materials, 2020, 30, 2002931.	7.8	7
147	One-pot synthesis of heterodimeric agonists that activate the canonical Wnt signaling pathway. Chemical Communications, 2020, 56, 3685-3688.	2.2	7
148	Mastering their own fates through the matrix. Nature Materials, 2019, 18, 779-780.	13.3	6
149	Protocol to Fabricate Engineered Illumination Devices for Optogenetic Control of Cellular Signaling Dynamics. STAR Protocols, 2020, 1, 100141.	0.5	6
150	Simple, Affordable, and Modular Patterning of Cells using DNA. Journal of Visualized Experiments, 2021, , .	0.2	6
151	Multiwell Combinatorial Hydrogel Array for High-Throughput Analysis of Cellâ€“ECM Interactions. ACS Biomaterials Science and Engineering, 2021, 7, 2453-2465.	2.6	6
152	Exploring and engineering stem cells and their niches. Current Opinion in Chemical Biology, 2007, 11, 355-356.	2.8	5
153	A mediumâ€throughput analysis of signaling pathways involved in early stages of stem cell reprogramming. Biotechnology and Bioengineering, 2015, 112, 209-219.	1.7	5
154	Novel Lung Tropic Adeno-Associated Virus Capsids for Therapeutic Gene Delivery. Human Gene Therapy, 2020, 31, 996-1009.	1.4	5
155	119. Engineering a Self-Inactivating CRISPR System for AAV Vectors. Molecular Therapy, 2016, 24, S50.	3.7	4
156	hPSCâ€derived Midbrain Dopaminergic Neurons Generated in a Scalable 3â€D Biomaterial. Current Protocols in Stem Cell Biology, 2018, 44, 2D.21.1-2D.21.17.	3.0	4
157	High-Throughput Discovery of Targeted, Minimally Complex Peptide Surfaces for Human Pluripotent Stem Cell Culture. ACS Biomaterials Science and Engineering, 2021, 7, 1344-1360.	2.6	4
158	CL6mN: Rationally Designed Optogenetic Photoswitches with Tunable Dissociation Dynamics. ACS Synthetic Biology, 2020, 9, 2274-2281.	1.9	3
159	Microarraying for Mechanosensivitity. Cell Stem Cell, 2010, 7, 273-274.	5.2	2
160	AAV shuffles to the liver: commentary on Lisowski et al.. Molecular Therapy - Methods and Clinical Development, 2014, 1, 14006.	1.8	2
161	Making way for neural stemness. Nature Materials, 2017, 16, 1174-1176.	13.3	2
162	Viral Vector Technologies and Strategies: Improving on Nature. International Ophthalmology Clinics, 2021, 61, 59-89.	0.3	2

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163	Optogenetic Application to Investigating Cell Behavior and Neurological Disease. Frontiers in Cellular Neuroscience, 2022, 16, 811493.	1.8	2
164	Characterization of an optogenetic translation activation system. , 2014, , .		1
165	Viral infection: A key host receptor for AAV. Nature Microbiology, 2016, 1, 15027.	5.9	1
166	In vivo magnetic nanoparticle cytometer for stem cells in small animals. , 2013, , .		0
167	The Young Innovators of Cellular and Molecular Bioengineering. Cellular and Molecular Bioengineering, 2014, 7, 291-292.	1.0	0
168	Cheaper and less variable expansion. Nature Biomedical Engineering, 2018, 2, 144-145.	11.6	0
169	Physical and Engineering Principles in Stem Cell Research. Science Policy Reports, 2014, , 21-43.	0.1	0
170	Development of a Targeted Diversifier Allowing Mutation of All Nucleotide Types In Vivo. FASEB Journal, 2019, 33, 95.2.	0.2	0