

# David V Schaffer

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Optogenetic Application to Investigating Cell Behavior and Neurological Disease. <i>Frontiers in Cellular Neuroscience</i> , 2022, 16, 811493.	1.8	2
2	<i>Egr1</i> is a 3D matrix-specific mediator of mechanosensitive stem cell lineage commitment. <i>Science Advances</i> , 2022, 8, eabm4646.	4.7	20
3	In vivo hypermutation and continuous evolution. <i>Nature Reviews Methods Primers</i> , 2022, 2, .	11.8	39
4	Viral Vector Technologies and Strategies: Improving on Nature. <i>International Ophthalmology Clinics</i> , 2021, 61, 59-89.	0.3	2
5	Simple, Affordable, and Modular Patterning of Cells using DNA. <i>Journal of Visualized Experiments</i> , 2021, , .	0.2	6
6	High-Throughput Discovery of Targeted, Minimally Complex Peptide Surfaces for Human Pluripotent Stem Cell Culture. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 1344-1360.	2.6	4
7	Multiwell Combinatorial Hydrogel Array for High-Throughput Analysis of Cell-ECM Interactions. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 2453-2465.	2.6	6
8	Adeno-Associated Virus Vector for Central Nervous System Gene Therapy. <i>Trends in Molecular Medicine</i> , 2021, 27, 524-537.	3.5	33
9	Genome-wide activation screens to increase adeno-associated virus production. <i>Molecular Therapy - Nucleic Acids</i> , 2021, 26, 94-103.	2.3	8
10	scAAVengr, a transcriptome-based pipeline for quantitative ranking of engineered AAVs with single-cell resolution. <i>ELife</i> , 2021, 10, .	2.8	33
11	High-throughput 3D screening for differentiation of hPSC-derived cell therapy candidates. <i>Science Advances</i> , 2020, 6, eaaz1457.	4.7	8
12	Advanced Materials to Enhance Central Nervous System Tissue Modeling and Cell Therapy. <i>Advanced Functional Materials</i> , 2020, 30, 2002931.	7.8	7
13	CL6mN: Rationally Designed Optogenetic Photoswitches with Tunable Dissociation Dynamics. <i>ACS Synthetic Biology</i> , 2020, 9, 2274-2281.	1.9	3
14	Novel Lung Tropic Adeno-Associated Virus Capsids for Therapeutic Gene Delivery. <i>Human Gene Therapy</i> , 2020, 31, 996-1009.	1.4	5
15	$\beta$ -Catenin signaling dynamics regulate cell fate in differentiating neural stem cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 28828-28837.	3.3	29
16	Protocol to Fabricate Engineered Illumination Devices for Optogenetic Control of Cellular Signaling Dynamics. <i>STAR Protocols</i> , 2020, 1, 100141.	0.5	6
17	Targeted Diversification in the <i>S. cerevisiae</i> Genome with CRISPR-Guided DNA Polymerase I. <i>ACS Synthetic Biology</i> , 2020, 9, 1911-1916.	1.9	33
18	Angiotensin links ROCK and YAP signaling in mechanosensitive differentiation of neural stem cells. <i>Molecular Biology of the Cell</i> , 2020, 31, 386-396.	0.9	26

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19	The delivery challenge: fulfilling the promise of therapeutic genome editing. <i>Nature Biotechnology</i> , 2020, 38, 845-855.	9.4	163
20	Engineered Illumination Devices for Optogenetic Control of Cellular Signaling Dynamics. <i>Cell Reports</i> , 2020, 31, 107737.	2.9	47
21	One-pot synthesis of heterodimeric agonists that activate the canonical Wnt signaling pathway. <i>Chemical Communications</i> , 2020, 56, 3685-3688.	2.2	7
22	Recapitulating complex biological signaling environments using a multiplexed, DNA-patterning approach. <i>Science Advances</i> , 2020, 6, eaay5696.	4.7	34
23	In vivo directed evolution of adeno-associated virus in the primate retina. <i>JCI Insight</i> , 2020, 5, .	2.3	71
24	High-throughput combinatorial screening reveals interactions between signaling molecules that regulate adult neural stem cell fate. <i>Biotechnology and Bioengineering</i> , 2019, 116, 193-205.	1.7	12
25	Mastering their own fates through the matrix. <i>Nature Materials</i> , 2019, 18, 779-780.	13.3	6
26	Gene Editing to Generate Versatile Human Pluripotent Stem Cell Reporter Lines for Analysis of Differentiation and Lineage Tracing. <i>Stem Cells</i> , 2019, 37, 1556-1566.	1.4	13
27	AAVR-Displaying Interfaces: Serotype-Independent Adeno-Associated Virus Capture and Local Delivery Systems. <i>Molecular Therapy - Nucleic Acids</i> , 2019, 18, 432-443.	2.3	10
28	CRISPR-Cas9-Mediated Genome Editing Increases Lifespan and Improves Motor Deficits in a Huntington's Disease Mouse Model. <i>Molecular Therapy - Nucleic Acids</i> , 2019, 17, 829-839.	2.3	92
29	CRISPR-READI: Efficient Generation of Knockin Mice by CRISPR RNP Electroporation and AAV Donor Infection. <i>Cell Reports</i> , 2019, 27, 3780-3789.e4.	2.9	73
30	Engineering biomaterials to control the neural differentiation of stem cells. <i>Brain Research Bulletin</i> , 2019, 150, 50-60.	1.4	17
31	Engineering the AAV capsid to evade immune responses. <i>Current Opinion in Biotechnology</i> , 2019, 60, 99-103.	3.3	64
32	High-throughput identification of factors promoting neuronal differentiation of human neural progenitor cells in microscale 3D cell culture. <i>Biotechnology and Bioengineering</i> , 2019, 116, 168-180.	1.7	25
33	Development of a Targeted Diversifier Allowing Mutation of All Nucleotide Types In Vivo. <i>FASEB Journal</i> , 2019, 33, 95.2.	0.2	0
34	A Hypothalamic Switch for REM and Non-REM Sleep. <i>Neuron</i> , 2018, 97, 1168-1176.e4.	3.8	106
35	Cheaper and less variable expansion. <i>Nature Biomedical Engineering</i> , 2018, 2, 144-145.	11.6	0
36	hPSC-Derived Striatal Cells Generated Using a Scalable 3D Hydrogel Promote Recovery in a Huntington Disease Mouse Model. <i>Stem Cell Reports</i> , 2018, 10, 1481-1491.	2.3	46

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37	Thermoreversible Hyaluronic Acid- $\chi$ -PNIPAAm Hydrogel Systems for 3D Stem Cell Culture. <i>Advanced Healthcare Materials</i> , 2018, 7, e1800225.	3.9	83
38	Engineered viral vectors for functional interrogation, deconvolution, and manipulation of neural circuits. <i>Current Opinion in Neurobiology</i> , 2018, 50, 163-170.	2.0	24
39	hPSC-derived Midbrain Dopaminergic Neurons Generated in a Scalable 3D Biomaterial. <i>Current Protocols in Stem Cell Biology</i> , 2018, 44, 2D.21.1-2D.21.17.	3.0	4
40	In Vivo Selection of a Computationally Designed SCHEMA AAV Library Yields a Novel Variant for Infection of Adult Neural Stem Cells in the SVZ. <i>Molecular Therapy</i> , 2018, 26, 304-319.	3.7	72
41	Screening for Neutralizing Antibodies Against Natural and Engineered AAV Capsids in Nonhuman Primate Retinas. <i>Methods in Molecular Biology</i> , 2018, 1715, 239-249.	0.4	9
42	Influence of hippocampal niche signals on neural stem cell functions during aging. <i>Cell and Tissue Research</i> , 2018, 371, 115-124.	1.5	27
43	Dopaminergic Neurons Transplanted Using Cell-Instructive Biomaterials Alleviate Parkinsonism in Rodents. <i>Advanced Functional Materials</i> , 2018, 28, 1804144.	7.8	19
44	Understanding How Wnt Influences Destruction Complex Activity and $\beta$ -Catenin Dynamics. <i>IScience</i> , 2018, 6, 13-21.	1.9	18
45	Adeno-associated virus-mediated delivery of CRISPR-Cas9 for genome editing in the central nervous system. <i>Current Opinion in Biomedical Engineering</i> , 2018, 7, 33-41.	1.8	13
46	CRISPR-guided DNA polymerases enable diversification of all nucleotides in a tunable window. <i>Nature</i> , 2018, 560, 248-252.	13.7	231
47	Spatio-mechanical Modulation of EphB4-Ephrin-B2 Signaling in Neural Stem Cell Differentiation. <i>Biophysical Journal</i> , 2018, 115, 865-873.	0.2	13
48	The Spectrin-Actin-Based Periodic Cytoskeleton as a Conserved Nanoscale Scaffold and Ruler of the Neural Stem Cell Lineage. <i>Cell Reports</i> , 2018, 24, 1512-1522.	2.9	34
49	Proliferation versus Differentiation: Redefining Retinoic Acid's Role. <i>Stem Cell Reports</i> , 2018, 10, 1673-1675.	2.3	11
50	Efficient generation of hPSC-derived midbrain dopaminergic neurons in a fully defined, scalable, 3D biomaterial platform. <i>Scientific Reports</i> , 2017, 7, 40573.	1.6	51
51	Targeted gene knock-in by homology-directed genome editing using Cas9 ribonucleoprotein and AAV donor delivery. <i>Nucleic Acids Research</i> , 2017, 45, e98-e98.	6.5	72
52	Engineered hydrogels increase the post-transplantation survival of encapsulated hESC-derived midbrain dopaminergic neurons. <i>Biomaterials</i> , 2017, 136, 1-11.	5.7	97
53	At Light Speed: Advances in Optogenetic Systems for Regulating Cell Signaling and Behavior. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2017, 8, 13-39.	3.3	133
54	Defined and Scalable Differentiation of Human Oligodendrocyte Precursors from Pluripotent Stem Cells in a 3D Culture System. <i>Stem Cell Reports</i> , 2017, 8, 1770-1783.	2.3	59

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55	A Rationally Designed, General Strategy for Membrane Orientation of Photoinduced Electron Transfer-Based Voltage-Sensitive Dyes. <i>ACS Chemical Biology</i> , 2017, 12, 407-413.	1.6	40
56	Expansion of human pluripotent stem cells. <i>Current Opinion in Chemical Engineering</i> , 2017, 15, 24-35.	3.8	14
57	Novel biomaterials to study neural stem cell mechanobiology and improve cell-replacement therapies. <i>Current Opinion in Biomedical Engineering</i> , 2017, 4, 13-20.	1.8	19
58	A directed evolution approach to select for novel Adeno-associated virus capsids on an HIV-1 producer T cell line. <i>Journal of Virological Methods</i> , 2017, 250, 47-54.	1.0	8
59	Making way for neural stemness. <i>Nature Materials</i> , 2017, 16, 1174-1176.	13.3	2
60	Combining Engineered Nucleases with Adeno-associated Viral Vectors for Therapeutic Gene Editing. <i>Advances in Experimental Medicine and Biology</i> , 2017, 1016, 29-42.	0.8	13
61	Dynamics of Mechanosensitive Neural Stem Cell Differentiation. <i>Stem Cells</i> , 2017, 35, 497-506.	1.4	122
62	In vivo genome editing improves motor function and extends survival in a mouse model of ALS. <i>Science Advances</i> , 2017, 3, eaar3952.	4.7	127
63	Optogenetic tools for cell biological applications. <i>Journal of Thoracic Disease</i> , 2017, 9, 4867-4870.	0.6	9
64	CFTR gene transfer with AAV improves early cystic fibrosis pig phenotypes. <i>JCI Insight</i> , 2016, 1, e88728.	2.3	72
65	Microelastic mapping of the rat dentate gyrus. <i>Royal Society Open Science</i> , 2016, 3, 150702.	1.1	25
66	Quantitative Magnetic Particle Imaging Monitors the Transplantation, Biodistribution, and Clearance of Stem Cells <i>In Vivo</i> . <i>Theranostics</i> , 2016, 6, 291-301.	4.6	252
67	Interrogating cellular fate decisions with high-throughput arrays of multiplexed cellular communities. <i>Nature Communications</i> , 2016, 7, 10309.	5.8	41
68	119. Engineering a Self-Inactivating CRISPR System for AAV Vectors. <i>Molecular Therapy</i> , 2016, 24, S50.	3.7	4
69	Wnt Regulates Proliferation and Neurogenic Potential of Müller Glial Cells via a Lin28/let-7 miRNA-Dependent Pathway in Adult Mammalian Retinas. <i>Cell Reports</i> , 2016, 17, 165-178.	2.9	124
70	A Designer AAV Variant Permits Efficient Retrograde Access to Projection Neurons. <i>Neuron</i> , 2016, 92, 372-382.	3.8	1,007
71	High-Throughput Toxicity and Phenotypic Screening of 3D Human Neural Progenitor Cell Cultures on a Microarray Chip Platform. <i>Stem Cell Reports</i> , 2016, 7, 970-982.	2.3	55
72	Viral infection: A key host receptor for AAV. <i>Nature Microbiology</i> , 2016, 1, 15027.	5.9	1

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73	Adeno-Associated Virus-Mediated Delivery of CRISPR-Cas Systems for Genome Engineering in Mammalian Cells. Cold Spring Harbor Protocols, 2016, 2016, pdb.prot086868.	0.2	14
74	Adeno-associated virus (AAV) vectors in cancer gene therapy. Journal of Controlled Release, 2016, 240, 287-301.	4.8	137
75	Challenging Regeneration to Transform Medicine. Stem Cells Translational Medicine, 2016, 5, 1-7.	1.6	37
76	Multivalent hyaluronic acid bioconjugates improve sFlt-1 activity in vitro. Biomaterials, 2016, 93, 95-105.	5.7	25
77	CRISPR-mediated Activation of Latent HIV-1 Expression. Molecular Therapy, 2016, 24, 499-507.	3.7	89
78	Genome Engineering Using Adeno-associated Virus: Basic and Clinical Research Applications. Molecular Therapy, 2016, 24, 458-464.	3.7	93
79	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
80	Orthogonal control of expression mean and variance by epigenetic features at different genomic loci. Molecular Systems Biology, 2015, 11, 806.	3.2	95
81	Enhanced selective gene delivery to neural stem cells <i>in vivo</i> by an adeno-associated viral variant. Development (Cambridge), 2015, 142, 1885-1892.	1.2	41
82	Engineered AAV vectors for improved central nervous system gene delivery. Neurogenesis (Austin, Tex) 15:8 (2015) 1-8	1.5	8
83	Age-Associated Increase in BMP Signaling Inhibits Hippocampal Neurogenesis. Stem Cells, 2015, 33, 1577-1588.	1.4	83
84	cAMP and EPAC Signaling Functionally Replace OCT4 During Induced Pluripotent Stem Cell Reprogramming. Molecular Therapy, 2015, 23, 952-963.	3.7	17
85	Enhanced survival and engraftment of transplanted stem cells using growth factor sequestering hydrogels. Biomaterials, 2015, 47, 1-12.	5.7	97
86	Multivalent Conjugates of Sonic Hedgehog Accelerate Diabetic Wound Healing. Tissue Engineering - Part A, 2015, 21, 2366-2378.	1.6	14
87	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
88	A medium-throughput analysis of signaling pathways involved in early stages of stem cell reprogramming. Biotechnology and Bioengineering, 2015, 112, 209-219.	1.7	5
89	Adeno-Associated Virus Vectors and Neurological Gene Therapy. Neuroscientist, 2015, 21, 84-98.	2.6	101
90	Systemic attenuation of the TGF- $\beta$ 2 pathway by a single drug simultaneously rejuvenates hippocampal neurogenesis and myogenesis in the same old mammal. Oncotarget, 2015, 6, 11959-11978.	0.8	101

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91	Characterization of an optogenetic translation activation system. , 2014, , .		1
92	Efficient derivation of cortical glutamatergic neurons from human pluripotent stem cells: A model system to study neurotoxicity in Alzheimer's disease. <i>Neurobiology of Disease</i> , 2014, 62, 62-72.	2.1	84
93	The effect of multivalent Sonic hedgehog on differentiation of human embryonic stem cells into dopaminergic and GABAergic neurons. <i>Biomaterials</i> , 2014, 35, 941-948.	5.7	52
94	Biomaterial Microenvironments to Support the Generation of New Neurons in the Adult Brain. <i>Stem Cells</i> , 2014, 32, 1220-1229.	1.4	18
95	Genetically encoded reporters for hyperpolarized xenon magnetic resonance imaging. <i>Nature Chemistry</i> , 2014, 6, 629-634.	6.6	186
96	Engineering adeno-associated viruses for clinical gene therapy. <i>Nature Reviews Genetics</i> , 2014, 15, 445-451.	7.7	641
97	Developing Defined and Scalable 3D Culture Systems for Culturing Human Pluripotent Stem Cells at High Densities. <i>Cellular and Molecular Bioengineering</i> , 2014, 7, 172-183.	1.0	67
98	Biogenic gas nanostructures as ultrasonic molecular reporters. <i>Nature Nanotechnology</i> , 2014, 9, 311-316.	15.6	260
99	The Young Innovators of Cellular and Molecular Bioengineering. <i>Cellular and Molecular Bioengineering</i> , 2014, 7, 291-292.	1.0	0
100	Single-cell western blotting. <i>Nature Methods</i> , 2014, 11, 749-755.	9.0	372
101	AAV shuffles to the liver: commentary on Lisowski et al.. <i>Molecular Therapy - Methods and Clinical Development</i> , 2014, 1, 14006.	1.8	2
102	Mechanisms of action of hESC-secreted proteins that enhance human and mouse myogenesis. <i>Aging</i> , 2014, 6, 602-620.	1.4	13
103	Physical and Engineering Principles in Stem Cell Research. <i>Science Policy Reports</i> , 2014, , 21-43.	0.1	0
104	A fully defined and scalable 3D culture system for human pluripotent stem cell expansion and differentiation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E5039-48.	3.3	281
105	Multivalent ligands control stem cell behaviour in vitro and in vivo. <i>Nature Nanotechnology</i> , 2013, 8, 831-838.	15.6	97
106	Challenges in nucleic acid-lipid films for transfection. <i>AICHE Journal</i> , 2013, 59, 3203-3213.	1.8	14
107	In vivo magnetic nanoparticle cytometer for stem cells in small animals. , 2013, , .		0
108	Light-inducible activation of target mRNA translation in mammalian cells. <i>Chemical Communications</i> , 2013, 49, 8338.	2.2	29

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109	Optogenetic protein clustering and signaling activation in mammalian cells. <i>Nature Methods</i> , 2013, 10, 249-252.	9.0	397
110	Long-distance axonal regeneration induced by CNTF gene transfer is impaired by axonal misguidance in the injured adult optic nerve. <i>Neurobiology of Disease</i> , 2013, 51, 202-213.	2.1	116
111	In Vivo Directed Evolution of a New Adeno-Associated Virus for Therapeutic Outer Retinal Gene Delivery from the Vitreous. <i>Science Translational Medicine</i> , 2013, 5, 189ra76.	5.8	554
112	Pan-neuronal maturation but not neuronal subtype differentiation of adult neural stem cells is mechanosensitive. <i>Scientific Reports</i> , 2013, 3, 1817.	1.6	25
113	Quantitative stem cell imaging with magnetic particle imaging. , 2013, , .		10
114	Spatial organization of cell-cell adhesive ligands for advanced cell culture. <i>Biotechnology Journal</i> , 2013, 8, 1411-1423.	1.8	44
115	Directed Evolution of Adeno-associated Virus for Enhanced Gene Delivery and Gene Targeting in Human Pluripotent Stem Cells. <i>Molecular Therapy</i> , 2012, 20, 329-338.	3.7	113
116	Biophysical regulation of stem cell behavior within the niche. <i>Stem Cell Research and Therapy</i> , 2012, 3, 50.	2.4	33
117	Chromatin accessibility at the HIV LTR promoter sets a threshold for NF- $\kappa$ B mediated viral gene expression. <i>Integrative Biology (United Kingdom)</i> , 2012, 4, 661.	0.6	27
118	Soft microenvironments promote the early neurogenic differentiation but not self-renewal of human pluripotent stem cells. <i>Integrative Biology (United Kingdom)</i> , 2012, 4, 1049-1058.	0.6	132
119	Astrocytes regulate adult hippocampal neurogenesis through ephrin-B signaling. <i>Nature Neuroscience</i> , 2012, 15, 1399-1406.	7.1	194
120	Progress and Prospects for Stem Cell Engineering. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2011, 2, 479-502.	3.3	31
121	Nox2 redox signaling maintains essential cell populations in the brain. <i>Nature Chemical Biology</i> , 2011, 7, 106-112.	3.9	248
122	Antiviral RNAi: Translating Science Towards Therapeutic Success. <i>Pharmaceutical Research</i> , 2011, 28, 2966-2982.	1.7	18
123	Rho GTPases Mediate the Mechanosensitive Lineage Commitment of Neural Stem Cells. <i>Stem Cells</i> , 2011, 29, 1886-1897.	1.4	176
124	Exploiting bacterial peptide display technology to engineer biomaterials for neural stem cell culture. <i>Biomaterials</i> , 2011, 32, 1484-1494.	5.7	37
125	An Evolved Adeno-associated Viral Variant Enhances Gene Delivery and Gene Targeting in Neural Stem Cells. <i>Molecular Therapy</i> , 2011, 19, 667-675.	3.7	91
126	AAV Mediated GDNF Secretion From Retinal Glia Slows Down Retinal Degeneration in a Rat Model of Retinitis Pigmentosa. <i>Molecular Therapy</i> , 2011, 19, 1602-1608.	3.7	98



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127	Intravitreal Injection of AAV2 Transduces Macaque Inner Retina. , 2011, 52, 2775.		177
128	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
129	Biophysics and dynamics of natural and engineered stem cell microenvironments. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2010, 2, 49-64.	6.6	55
130	Development of a Low Bias Method for Characterizing Viral Populations Using Next Generation Sequencing Technology. PLoS ONE, 2010, 5, e13564.	1.1	58
131	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
132	Computational Models of HIV-1 Resistance to Gene Therapy Elucidate Therapy Design Principles. PLoS Computational Biology, 2010, 6, e1000883.	1.5	14
133	Microarraying for Mechanosensitivity. Cell Stem Cell, 2010, 7, 273-274.	5.2	2
134	Characterization of integrin engagement during defined human embryonic stem cell culture. FASEB Journal, 2010, 24, 1056-1065.	0.2	102
135	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
136	In Vitro Culture and Analysis of Adult Hippocampal Neural Progenitors. Methods in Molecular Biology, 2010, 621, 65-87.	0.4	12
137	Viral Packaging and Transduction of Adult Hippocampal Neural Progenitors. Methods in Molecular Biology, 2010, 621, 103-116.	0.4	15
138	Molecular Evolution of Adeno-associated Virus for Enhanced Glial Gene Delivery. Molecular Therapy, 2009, 17, 2088-2095.	3.7	160
139	Inner Limiting Membrane Barriers to AAV-mediated Retinal Transduction From the Vitreous. Molecular Therapy, 2009, 17, 2096-2102.	3.7	275
140	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
141	The influence of hydrogel modulus on the proliferation and differentiation of encapsulated neural stem cells. Biomaterials, 2009, 30, 4695-4699.	5.7	577
142	A Novel Adeno-Associated Viral Variant for Efficient and Selective Intravitreal Transduction of Rat Müller Cells. PLoS ONE, 2009, 4, e7467.	1.1	176
143	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
144	Substrate Modulus Directs Neural Stem Cell Behavior. Biophysical Journal, 2008, 95, 4426-4438.	0.2	947

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145	HIV Evades RNA Interference Directed at TAR by an Indirect Compensatory Mechanism. <i>Cell Host and Microbe</i> , 2008, 4, 484-494.	5.1	44
146	Molecular Engineering of Viral Gene Delivery Vehicles. <i>Annual Review of Biomedical Engineering</i> , 2008, 10, 169-194.	5.7	140
147	Multivalency of Sonic Hedgehog Conjugated to Linear Polymer Chains Modulates Protein Potency. <i>Bioconjugate Chemistry</i> , 2008, 19, 806-812.	1.8	50
148	Engineering Biomaterials for Synthetic Neural Stem Cell Microenvironments. <i>Chemical Reviews</i> , 2008, 108, 1787-1796.	23.0	95
149	DNA Shuffling of Adeno-associated Virus Yields Functionally Diverse Viral Progeny. <i>Molecular Therapy</i> , 2008, 16, 1703-1709.	3.7	146
150	Enhanced preparation of adeno-associated viral vectors by using high hydrostatic pressure to selectively inactivate helper adenovirus. <i>Biotechnology and Bioengineering</i> , 2007, 97, 1170-1179.	1.7	15
151	Library selection and directed evolution approaches to engineering targeted viral vectors. <i>Biotechnology and Bioengineering</i> , 2007, 98, 515-524.	1.7	26
152	Immobilized sonic hedgehog N-terminal signaling domain enhances differentiation of bone marrow-derived mesenchymal stem cells. <i>Journal of Biomedical Materials Research - Part A</i> , 2007, 83A, 1200-1208.	2.1	41
153	PI3K/Akt and CREB regulate adult neural hippocampal progenitor proliferation and differentiation. <i>Developmental Neurobiology</i> , 2007, 67, 1348-1361.	1.5	383
154	Designing synthetic materials to control stem cell phenotype. <i>Current Opinion in Chemical Biology</i> , 2007, 11, 381-387.	2.8	208
155	Exploring and engineering stem cells and their niches. <i>Current Opinion in Chemical Biology</i> , 2007, 11, 355-356.	2.8	5
156	High-Throughput Screening of Gene Function in Stem Cells Using Clonal Microarrays. <i>Stem Cells</i> , 2007, 25, 2928-2935.	1.4	22
157	Scaffolds based on degradable alginate hydrogels and poly(lactide-co-glycolide) microspheres for stem cell culture. <i>Biomaterials</i> , 2007, 28, 5518-5525.	5.7	194
158	Directed evolution of adeno-associated virus yields enhanced gene delivery vectors. <i>Nature Biotechnology</i> , 2006, 24, 198-204.	9.4	457
159	Construction of diverse adeno-associated viral libraries for directed evolution of enhanced gene delivery vehicles. <i>Nature Protocols</i> , 2006, 1, 701-706.	5.5	68
160	Development of quantitative PCR methods to analyse neural progenitor cell culture state. <i>Biotechnology and Applied Biochemistry</i> , 2006, 44, 1.	1.4	11
161	Selection of Novel Vesicular Stomatitis Virus Glycoprotein Variants from a Peptide Insertion Library for Enhanced Purification of Retroviral and Lentiviral Vectors. <i>Journal of Virology</i> , 2006, 80, 3285-3292.	1.5	52
162	Signal dynamics in Sonic hedgehog tissue patterning. <i>Development (Cambridge)</i> , 2006, 133, 889-900.	1.2	107

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163	High-Throughput, Library-Based Selection of a Murine Leukemia Virus Variant To Infect Nondividing Cells. <i>Journal of Virology</i> , 2006, 80, 8981-8988.	1.5	21
164	PEG conjugation moderately protects adeno-associated viral vectors against antibody neutralization. <i>Biotechnology and Bioengineering</i> , 2005, 92, 24-34.	1.7	134
165	Computational Design of Antiviral RNA Interference Strategies That Resist Human Immunodeficiency Virus Escape. <i>Journal of Virology</i> , 2005, 79, 1645-1654.	1.5	62
166	Neurogenesis and Neuroadaptation. <i>NeuroMolecular Medicine</i> , 2004, 5, 001-010.	1.8	48
167	Kinetic analysis and modeling of firefly luciferase as a quantitative reporter gene in live mammalian cells. <i>Biotechnology and Bioengineering</i> , 2004, 86, 827-834.	1.7	154
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