A Francis Stewart

List of Publications by Year
in descending order

102 papers	15,425 citations	25034 57 h-index	34986 98 g-index
105 all docs	105 docs citations	105 times ranked	20917 citing authors

#	Article	IF	Citations
1	A conditional knockout resource for the genome-wide study of mouse gene function. Nature, 2011, 474, 337-342.	27.8	1,488
2	A new logic for DNA engineering using recombination in Escherichia coli. Nature Genetics, 1998, 20, 123-128.	21.4	1,123
3	High-efficiency deleter mice show that FLPe is an alternative to Cre-loxP. Nature Genetics, 2000, 25, 139-140.	21.4	1,073
4	The Transcriptional and Epigenomic Foundations of Ground State Pluripotency. Cell, 2012, 149, 590-604.	28.9	774
5	BAC TransgeneOmics: a high-throughput method for exploration of protein function in mammals. Nature Methods, 2008, 5, 409-415.	19.0	568
6	High-throughput engineering of the mouse genome coupled with high-resolution expression analysis. Nature Biotechnology, 2003, 21, 652-659.	17.5	549
7	Heterodimerization of the Drosophila ecdysone receptor with retinoid X receptor and ultraspiracle. Nature, 1993, 362, 471-475.	27.8	512
8	Rapid modification of bacterial artificial chromosomes by ET- recombination. Nucleic Acids Research, 1999, 27, 1555-1557.	14.5	475
9	DNA cloning by homologous recombination in Escherichia coli. Nature Biotechnology, 2000, 18, 1314-1317.	17.5	376
10	Full-length RecE enhances linear-linear homologous recombination and facilitates direct cloning for bioprospecting. Nature Biotechnology, 2012, 30, 440-446.	17.5	375
11	Improved properties of FLP recombinase evolved by cycling mutagenesis. Nature Biotechnology, 1998, 16, 657-662.	17.5	374
12	The mammalian gene function resource: the international knockout mouse consortium. Mammalian Genome, 2012, 23, 580-586.	2.2	292
13	Dre recombinase, like Cre, is a highly efficient site-specific recombinase in <i>E. coli</i>, mammalian cells and mice. DMM Disease Models and Mechanisms, 2009, 2, 508-515.	2.4	254
14	A Genome-Scale Resource for InÂVivo Tag-Based Protein Function Exploration in C.Âelegans. Cell, 2012, 150, 855-866.	28.9	253
15	A Genome-Scale RNAi Screen for Oct4 Modulators Defines a Role of the Paf1 Complex for Embryonic Stem Cell Identity. Cell Stem Cell, 2009, 4, 403-415.	11.1	252
16	The S. cerevisiae SET3 complex includes two histone deacetylases, Hos2 and Hst1, and is a meiotic-specific repressor of the sporulation gene program. Genes and Development, 2001, 15, 2991-3004.	5.9	250
17	Multiple epigenetic maintenance factors implicated by the loss of Mll2 in mouse development. Development (Cambridge), 2006, 133, 1423-1432.	2.5	245
18	Mll2 is required for H3K4 trimethylation on bivalent promoters in embryonic stem cells, whereas Mll1 is redundant. Development (Cambridge), 2014, 141, 526-537.	2.5	225

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19	Meiotic homologue alignment and its quality surveillance are controlled by mouse HORMAD1. Nature Cell Biology, 2011, 13, 599-610.	10.3	207
20	The European dimension for the mouse genome mutagenesis program. Nature Genetics, 2004, 36, 925-927.	21.4	195
21	A reliable lacZ expression reporter cassette for multipurpose, knockout-first alleles. Genesis, 2004, 38, 151-158.	1.6	186
22	A recombineering pipeline for functional genomics applied to Caenorhabditis elegans. Nature Methods, 2006, 3, 839-844.	19.0	180
23	Heterologous Expression of a Myxobacterial Natural Products Assembly Line in Pseudomonads via Red/ET Recombineering. Chemistry and Biology, 2005, 12, 349-356.	6.0	176
24	Temporally and spatially regulated somatic mutagenesis in mice. Nucleic Acids Research, 1998, 26, 1427-1432.	14.5	173
25	The H3K4 methyltransferase Setd1a is first required at the epiblast stage, whereas Setd1b becomes essential after gastrulation. Development (Cambridge), 2014, 141, 1022-1035.	2.5	166
26	RecE/RecT and RedÎ±/RedÎ² initiate double-stranded break repair by specifically interacting with their respective partners. Genes and Development, 2000, 14, 1971-1982.	5.9	157
27	The histone 3 lysine 4 methyltransferase, Mll2, is only required briefly in development and spermatogenesis. Epigenetics and Chromatin, 2009, 2, 5.	3.9	154
28	Current issues in mouse genome engineering. Nature Genetics, 2005, 37, 1187-1193.	21.4	153
29	Efficient FLP recombination in mouse ES cells and oocytes. Genesis, 2001, 31, 6-10.	1.6	151
30	Alteration of Cre recombinase site specificity by substrate-linked protein evolution. Nature Biotechnology, 2001, 19, 1047-1052.	17.5	147
31	The histone 3 lysine 36 methyltransferase, SET2, is involved in transcriptional elongation. Nucleic Acids Research, 2003, 31, 2475-2482.	14.5	138
32	RecET direct cloning and RedÎ±Î² recombineering of biosynthetic gene clusters, large operons or single genes for heterologous expression. Nature Protocols, 2016, 11, 1175-1190.	12.0	132
33	Point mutation of bacterial artificial chromosomes by ET recombination. EMBO Reports, 2000, 1, 239-243.	4.5	131
34	Efficient transfer of two large secondary metabolite pathway gene clusters into heterologous hosts by transposition. Nucleic Acids Research, 2008, 36, e113-e113.	14.5	128
35	An improved Flp deleter mouse in C57Bl/6 based on Flpo recombinase. Genesis, 2010, 48, 512-520.	1.6	128
36	MLL2 conveys transcription-independent H3K4 trimethylation in oocytes. Nature Structural and Molecular Biology, 2018, 25, 73-82.	8.2	127

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37	Engineering the mouse genome with bacterial artificial chromosomes to create multipurpose alleles. Nature Biotechnology, 2003, 21, 443-447.	17.5	126
38	An Improved Recombineering Approach by Adding RecA to Î» Red Recombination. Molecular Biotechnology, 2006, 32, 043-054.	2.4	121
39	Improved seamless mutagenesis by recombineering using ccdB for counterselection. Nucleic Acids Research, 2014, 42, e37-e37.	14.5	113
40	Transposon-mediated BAC transgenesis in human ES cells. Nucleic Acids Research, 2012, 40, e150-e150.	14.5	109
41	Chromatin Central: towards the comparative proteome by accurate mapping of the yeast proteomic environment. Genome Biology, 2008, 9, R167.	9.6	106
42	Single-stranded heteroduplex intermediates in Î» Red homologous recombination. BMC Molecular Biology, 2010, 11, 54.	3.0	104
43	Phage annealing proteins promote oligonucleotide-directed mutagenesis in Escherichia coli and mouse ES cells. BMC Molecular Biology, 2003, 4, 1.	3.0	103
44	In Vivo Evidence for a Prodrug Activation Mechanism during Colibactin Maturation. ChemBioChem, 2013, 14, 1194-1197.	2.6	101
45	ExoCET: exonuclease in vitro assembly combined with RecET recombination for highly efficient direct DNA cloning from complex genomes. Nucleic Acids Research, 2018, 46, e28-e28.	14.5	96
46	Increased Apoptosis and Skewed Differentiation in Mouse Embryonic Stem Cells Lacking the Histone Methyltransferase Mll2. Molecular Biology of the Cell, 2007, 18, 2356-2366.	2.1	93
47	The histone demethylase UTX regulates stem cell migration and hematopoiesis. Blood, 2013, 121, 2462-2473.	1.4	93
48	Sustained Pax6 Expression Generates Primate-like Basal Radial Glia in Developing Mouse Neocortex. PLoS Biology, 2015, 13, e1002217.	5.6	93
49	A simple assay to determine the functionality of Cre or FLP recombination targets in genomic manipulation constructs. Nucleic Acids Research, 1996, 24, 3118-3119.	14.5	87
50	High Conservation of the Set1/Rad6 Axis of Histone 3 Lysine 4 Methylation in Budding and Fission Yeasts. Journal of Biological Chemistry, 2003, 278, 8487-8493.	3.4	84
51	Reconstitution of the Myxothiazol Biosynthetic Gene Cluster by Red/ET Recombination and Heterologous Expression in Myxococcus xanthus. Applied and Environmental Microbiology, 2006, 72, 7485-7494.	3.1	81
52	A Recombineering Pipeline to Make Conditional Targeting Constructs. Methods in Enzymology, 2010, 477, 125-144.	1.0	75
53	Conformational Adaptability of RedÎ² during DNA Annealing and Implications for Its Structural Relationship with Rad52. Journal of Molecular Biology, 2009, 391, 586-598.	4.2	73
54	Stepwise Manipulation of DNA Specificity in Flp Recombinase: Progressively Adapting Flp to Individual and Combinatorial Mutations in its Target Site. Journal of Molecular Biology, 2003, 326, 65-76.	4.2	70

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55	Metabolic Engineering of Pseudomonas putida for Methylmalonyl-CoA Biosynthesis to Enable Complex Heterologous Secondary Metabolite Formation. Chemistry and Biology, 2006, 13, 1253-1264.	6.0	66
56	Room temperature electrocompetent bacterial cells improve DNA transformation and recombineering efficiency. Scientific Reports, 2016, 6, 24648.	3.3	66
57	Deciphering Protein Complexes and Protein Interaction Networks by Tandem Affinity Purification and Mass Spectrometry. Molecular and Cellular Proteomics, 2002, 1, 204-212.	3.8	62
58	Iron overload in adult Hfe-deficient mice independent of changes in the steady-state expression of the duodenal iron transporters DMT1 and Ireg1/ferroportin. Journal of Molecular Medicine, 2004, 82, 39-48.	3.9	61
59	The Schizosaccharomyces pombe JmjC-Protein, Msc1, Prevents H2A.Z Localization in Centromeric and Subtelomeric Chromatin Domains. PLoS Genetics, 2009, 5, e1000726.	3.5	61
60	A new recombineering system for Photorhabdus and Xenorhabdus. Nucleic Acids Research, 2015, 43, e36-e36.	14.5	54
61	A Practical Summary of Site-Specific Recombination, Conditional Mutagenesis, and Tamoxifen Induction of CreERT2. Methods in Enzymology, 2010, 477, 109-123.	1.0	53
62	High-efficiency counterselection recombineering for site-directed mutagenesis in bacterial artificial chromosomes. Nature Methods, 2012, 9, 103-109.	19.0	52
63	Direct cloning and heterologous expression of the salinomycin biosynthetic gene cluster from Streptomyces albus DSM41398 in Streptomyces coelicolor A3(2). Scientific Reports, 2015, 5, 15081.	3.3	49
64	An Engineered Virus Library as a Resource for the Spectrum-wide Exploration of Virus and Vector Diversity. Cell Reports, 2017, 19, 1698-1709.	6.4	49
65	Heterologous Production and Yield Improvement of Epothilones in Burkholderiales Strain DSM 7029. ACS Chemical Biology, 2017, 12, 1805-1812.	3.4	48
66	Expressing cytotoxic compounds in Escherichia coli Nissle 1917 for tumor-targeting therapy. Research in Microbiology, 2019, 170, 74-79.	2.1	48
67	A Comparative Analysis of an Orthologous Proteomic Environment in the Yeasts Saccharomyces cerevisiae and Schizosaccharomyces pombe. Molecular and Cellular Proteomics, 2004, 3, 125-132.	3.8	44
68	Single-Stranded DNA-Binding Protein and Exogenous RecBCD Inhibitors Enhance Phage-Derived Homologous Recombination in Pseudomonas. IScience, 2019, 14, 1-14.	4.1	43
69	Enhanced Heterologous Spinosad Production from a 79-kb Synthetic Multioperon Assembly. ACS Synthetic Biology, 2019, 8, 137-147.	3.8	39
70	A dual reporter screening system identifies the amino acid at position 82 in Flp site-specific recombinase as a determinant for target specificity. Nucleic Acids Research, 2002, 30, 1656-1663.	14.5	37
71	lncRNA Panct1 Maintains Mouse Embryonic Stem Cell Identity by Regulating TOBF1 Recruitment to Oct-Sox Sequences in Early G1. Cell Reports, 2017, 21, 3012-3021.	6.4	35
72	Recombineering, transfection, Western, IP and ChIP methods for protein tagging via gene targeting or BAC transgenesis. Methods, 2011, 53, 437-452.	3.8	33

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73	Recombineering reagents for improved inducible expression and selection marker re-use inSchizosaccharomyces pombe. Yeast, 2006, 23, 813-823.	1.7	32
74	Recombineering BAC transgenes for protein tagging. Methods, 2011, 53, 113-119.	3.8	32
75	Genome engineering of Agrobacterium tumefaciens using the lambda Red recombination system. Applied Microbiology and Biotechnology, 2014, 98, 2165-2172.	3.6	31
76	Kmt2b conveys monovalent and bivalent H3K4me3 in mouse spermatogonial stem cells at germline and embryonic promoters. Development (Cambridge), 2018, 145, .	2.5	26
77	Transposon mediated BAC transgenesis via pronuclear injection of mouse zygotes. Genesis, 2013, 51, 135-141.	1.6	25
78	ET-Cloning: Think Recombination First. , 2000, 22, 77-98.		24
79	BAC Engineering for the Generation of ES Cell-Targeting Constructs and Mouse Transgenes. , 2004, 256, 123-140.		24
80	Engineering Embryonic Stem Cells with Recombinase Systems. Methods in Enzymology, 2006, 420, 100-136.	1.0	24
81	The Set1 complex is dimeric and acts with Jhd2 demethylation to convey symmetrical H3K4 trimethylation. Genes and Development, 2019, 33, 550-564.	5.9	24
82	ET Recombination: DNA Engineering Using Homologous Recombination in E. coli<f$>. , 2004, 256, 107-122.		23
83	The contribution of homology arms to nuclease-assisted genome engineering. Nucleic Acids Research, 2017, 45, 8105-8115.	14.5	23
84	RedEx: a method for seamless DNA insertion and deletion in large multimodular polyketide synthase gene clusters. Nucleic Acids Research, 2020, 48, e130-e130.	14.5	23
85	A Single-Strand Annealing Protein Clamps DNA to Detect and Secure Homology. PLoS Biology, 2015, 13, e1002213.	5.6	22
86	RAC-tagging: Recombineering And Cas9-assisted targeting for protein tagging and conditional analyses. Scientific Reports, 2016, 6, 25529.	3.3	22
87	The best control for the specificity of RNAi. Trends in Biotechnology, 2005, 23, 446-448.	9.3	18
88	MLL4 is required after implantation whereas MLL3 becomes essential during late gestation. Development (Cambridge), 2020, 147, .	2.5	18
89	Systems Analyses Reveal Shared and Diverse Attributes of Oct4 Regulation in Pluripotent Cells. Cell Systems, 2015, 1, 141-151.	6.2	15
90	DNA annealing by RedÎ² is insufficient for homologous recombination and the additional requirements involve intra- and inter-molecular interactions. Scientific Reports, 2016, 6, 34525.	3.3	15

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91	Targeted isolation of cloned genomic regions by recombineering for haplotype phasing and isogenic targeting. Nucleic Acids Research, 2011, 39, e137-e137.	14.5	14
92	Positive and Negative Discrimination of Estrogen Receptor Agonists and Antagonists Using Site-Specific DNA Recombinase Fusion Proteins. Molecular Endocrinology, 1998, 12, 1120-1132.	3.7	13
93	Recombination-Mediated Genetic Engineering of Large Genomic DNA Transgenes. Methods in Molecular Biology, 2012, 772, 445-458.	0.9	13
94	Gene Targeting and Site-Specific Recombination in Mouse ES Cells. Methods in Enzymology, 2013, 533, 133-155.	1.0	11
95	â€œCre/loxP plus BACâ€ a strategy for direct cloning of large DNA fragment and its applications in Photorhabdus luminescens and Agrobacterium tumefaciens. Scientific Reports, 2016, 6, 29087.	3.3	10
96	Improved dsDNA recombineering enables versatile multiplex genome engineering of kilobase-scale sequences in diverse bacteria. Nucleic Acids Research, 2022, 50, e15-e15.	14.5	8
97	Microinjection of BAC DNA into the Pronuclei of Fertilized Mouse Oocytes. , 2004, 256, 141-158.		5
98	A Practical Guide to in and Xenorhabdus. Current Topics in Microbiology and Immunology, 2016, 402, 195-213.	1.1	4
99	Lambda Red Mediated Gap Repair Utilizes a Novel Replicative Intermediate in Escherichia coli. PLoS ONE, 2015, 10, e0120681.	2.5	3
100	Engineering of ES Cell Genomes with Recombinase Systems. , 2004, , 609-622.		2
101	New methods for extracting function from the mammalian genome. Methods, 2019, 164-165, 1-2.	3.8	1
102	Protein-Assisted Room-Temperature Assembly of Rigid, Immobile Holliday Junctions and Hierarchical DNA Nanostructures. Molecules, 2020, 25, 5099.	3.8	1