Mario R Capecchi

List of Publications by Year
in descending order

109 papers	19,015 citations	26630 56 h-index	29157 104 g-index
109 all docs	109 docs citations	109 times ranked	16574 citing authors

#	Article	IF	Citations
1	Site-directed mutagenesis by gene targeting in mouse embryo-derived stem cells. Cell, 1987, 51, 503-512.	28.9	2,323
2	Disruption of the proto-oncogene int-2 in mouse embryo-derived stem cells: a general strategy for targeting mutations to non-selectable genes. Nature, 1988, 336, 348-352.	27.8	1,707
3	Bmi1 is expressed in vivo in intestinal stem cells. Nature Genetics, 2008, 40, 915-920.	21.4	1,083
4	High efficiency transformation by direct microinjection of DNA into cultured mammalian cells. Cell, 1980, 22, 479-488.	28.9	1,008
5	Targeted disruption of the murine int-1 proto-oncogene resulting in severe abnormalities in midbrain and cerebellar development. Nature, 1990, 346, 847-850.	27.8	856
6	Regionally restricted developmental defects resulting from targeted disruption of the mouse homeobox gene hox-1.5. Nature, 1991, 350, 473-479.	27.8	835
7	Gene targeting in mice: functional analysis of the mammalian genome for the twenty-first century. Nature Reviews Genetics, 2005, 6, 507-512.	16.3	632
8	Absence of radius and ulna in mice lacking hoxa-11 andhoxd-11. Nature, 1995, 375, 791-795.	27.8	569
9	The Knockout Mouse Project. Nature Genetics, 2004, 36, 921-924.	21.4	556
10	Developmental defects of the ear, cranial nerves and hindbrain resulting from targeted disruption of the mouse homeobox geneHox-#150;1.6. Nature, 1992, 355, 516-520.	27.8	518
11	Hox10 and Hox11 Genes Are Required to Globally Pattern the Mammalian Skeleton. Science, 2003, 301, 363-367.	12.6	511
12	Hematopoietic Origin of Pathological Grooming in Hoxb8 Mutant Mice. Cell, 2010, 141, 775-785.	28.9	378
13	Hoxb8 Is Required for Normal Grooming Behavior in Mice. Neuron, 2002, 33, 23-34.	8.1	340
14	An<i>Fgf8</i>mouse mutant phenocopies human 22q11 deletion syndrome. Development (Cambridge), 2002, 129, 4591-4603.	2.5	312
15	Fgf8 is required for outgrowth and patterning of the limbs. Nature Genetics, 2000, 26, 455-459.	21.4	300
16	Location and function of retroviral and SV40 sequences that enhance biochemical transformation after microinjection of DNA. Cell, 1983, 33, 705-716.	28.9	283
17	Alveolar rhabdomyosarcomas in conditional Pax3:Fkhr mice: cooperativity of Ink4a/ARF and Trp53 loss of function. Genes and Development, 2004, 18, 2614-2626.	5.9	277
18	A Conditional Mouse Model of Synovial Sarcoma: Insights into a Myogenic Origin. Cancer Cell, 2007, 11, 375-388.	16.8	274

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19	Ectodermal Wnt3/beta -catenin signaling is required for the establishment and maintenance of the apical ectodermal ridge. Genes and Development, 2003, 17, 394-409.	5.9	262
20	Introduction of homologous DNA sequences into mammalian cells induces mutations in the cognate gene. Nature, 1986, 324, 34-38.	27.8	245
21	Mice with targeted disruptions in the paralogous genes hoxa-3 and hoxd-3 reveal synergistic interactions. Nature, 1994, 370, 304-307.	27.8	236
22	Maintenance of functional equivalence during paralogous Hox gene evolution. Nature, 2000, 403, 661-665.	27.8	234
23	Pro-proliferative and inflammatory signaling converge on FoxO1 transcription factor in pulmonary hypertension. Nature Medicine, 2014, 20, 1289-1300.	30.7	233
24	Hox11 paralogous genes are essential for metanephric kidney induction. Genes and Development, 2002, 16, 1423-1432.	5.9	225
25	Pax3:Fkhr interferes with embryonic Pax3 and Pax7 function: implications for alveolar rhabdomyosarcoma cell of origin. Genes and Development, 2004, 18, 2608-2613.	5.9	208
26	Targeted Gene Replacement. Scientific American, 1994, 270, 52-59.	1.0	206
27	The roles of Fgf4 and Fgf8 in limb bud initiation and outgrowth. Developmental Biology, 2004, 273, 361-372.	2.0	175
28	Hoxb13 mutations cause overgrowth of caudal spinal cordand tail vertebrae. Developmental Biology, 2003, 256, 317-330.	2.0	156
29	Virtual Histology of Transgenic Mouse Embryos for High-Throughput Phenotyping. PLoS Genetics, 2006, 2, e61.	3.5	153
30	Hox Group 3 Paralogous Genes Act Synergistically in the Formation of Somitic and Neural Crest-Derived Structures. Developmental Biology, 1997, 192, 274-288.	2.0	150
31	Hox genes define distinct progenitor sub-domains within the second heart field. Developmental Biology, 2011, 353, 266-274.	2.0	144
32	Deconstruction of the SS18-SSX Fusion Oncoprotein Complex: Insights into Disease Etiology and Therapeutics. Cancer Cell, 2012, 21, 333-347.	16.8	135
33	Toward simpler and faster genome-wide mutagenesis in mice. Nature Genetics, 2007, 39, 922-930.	21.4	132
34	Targeted Disruption ofhoxc-4Causes Esophageal Defects and Vertebral Transformations. Developmental Biology, 1996, 177, 232-249.	2.0	130
35	Loss of<i>Eph-receptor</i>expression correlates with loss of cell adhesion and chondrogenic capacity in<i>Hoxa13</i>mutant limbs. Development (Cambridge), 2001, 128, 4177-4188.	2.5	127
36	BMI1 represses Ink4a/Arf and Hox genes to regulate stem cells in the rodent incisor. Nature Cell Biology, 2013, 15, 846-852.	10.3	126

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37	Multiple roles of<i>Hoxa11</i>and<i>Hoxd11</i>in the formation of the mammalian forelimb zeugopod. Development (Cambridge), 2004, 131, 299-309.	2.5	121
38	Imaging Activity in Neurons and Glia with a Polr2a-Based and Cre-Dependent GCaMP5G-IRES-tdTomato Reporter Mouse. Neuron, 2014, 83, 1058-1072.	8.1	120
39	Two Cell Lineages, myf5 and myf5-Independent, Participate in Mouse Skeletal Myogenesis. Developmental Cell, 2008, 14, 437-445.	7.0	119
40	A mouse model of osteochondromagenesis from clonal inactivation of <i>Ext1</i> in chondrocytes. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 2054-2059.	7.1	109
41	Signaling by FGF4 and FGF8 is required for axial elongation of the mouse embryo. Developmental Biology, 2012, 371, 235-245.	2.0	109
42	Generating mice with targeted mutations. Nature Medicine, 2001, 7, 1086-1090.	30.7	108
43	The SS18-SSX Oncoprotein Hijacks KDM2B-PRC1.1 to Drive Synovial Sarcoma. Cancer Cell, 2018, 33, 527-541.e8.	16.8	99
44	Two distinct ontogenies confer heterogeneity to mouse brain microglia. Development (Cambridge), 2018, 145, .	2.5	99
45	<i>Bmi1</i> lineage tracing identifies a self-renewing pancreatic acinar cell subpopulation capable of maintaining pancreatic organ homeostasis. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 7101-7106.	7.1	89
46	Lineage of origin in rhabdomyosarcoma informs pharmacological response. Genes and Development, 2014, 28, 1578-1591.	5.9	87
47	Cardiovascular defects in a mouse model of HOXA1 syndrome. Human Molecular Genetics, 2012, 21, 26-31.	2.9	86
48	Reversal of Hox1 Gene Subfunctionalization in the Mouse. Developmental Cell, 2006, 11, 239-250.	7.0	81
49	Synovial Sarcoma: From Genetics to Genetic-based Animal Modeling. Clinical Orthopaedics and Related Research, 2008, 466, 2156-2167.	1.5	80
50	ASPM regulates symmetric stem cell division by tuning Cyclin E ubiquitination. Nature Communications, 2015, 6, 8763.	12.8	80
51	Hox3 genes coordinate mechanisms of genetic suppression and activation in the generation of branchial and somatic motoneurons. Development (Cambridge), 2003, 130, 5191-5201.	2.5	76
52	Analysis of Hoxa7/Hoxb7 mutants suggests periodicity in the generation of the different sets of vertebrae. Mechanisms of Development, 1998, 77, 49-57.	1.7	74
53	<i>piggyBac</i> mediates efficient in vivo CRISPR library screening for tumorigenesis in mice. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 722-727.	7.1	74
54	Modeling Alveolar Soft Part Sarcomagenesis in the Mouse: A Role for Lactate in the Tumor Microenvironment. Cancer Cell, 2014, 26, 851-862.	16.8	73

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55	Intracellular calcium dynamics in cortical microglia responding to focal laser injury in the PC::G5-tdT reporter mouse. Frontiers in Molecular Neuroscience, 2015, 8, 12.	2.9	72
56	Targeting the Wnt Pathway in Synovial Sarcoma Models. Cancer Discovery, 2013, 3, 1286-1301.	9.4	62
57	Hoxb1 functions in both motoneurons and in tissues of the periphery to establish and maintain the proper neuronal circuitry. Genes and Development, 2004, 18, 1539-1552.	5.9	54
58	Hoxa1 lineage tracing indicates a direct role for Hoxa1 in the development of the inner ear, the heart, and the third rhombomere. Developmental Biology, 2010, 341, 499-509.	2.0	53
59	Hoxb1 neural crest preferentially form glia of the PNS. Developmental Dynamics, 2003, 227, 379-386.	1.8	52
60	Identification of novel Hoxa1 downstream targets regulating hindbrain, neural crest and inner ear development. Developmental Biology, 2011, 357, 295-304.	2.0	51
61	Modeling Clear Cell Sarcomagenesis in the Mouse: Cell of Origin Differentiation State Impacts Tumor Characteristics. Cancer Cell, 2013, 23, 215-227.	16.8	51
62	Contribution of Hox genes to the diversity of the hindbrain sensory system. Development (Cambridge), 2004, 131, 1259-1266.	2.5	50
63	Hoxb1 regulates proliferation and differentiation of second heart field progenitors in pharyngeal mesoderm and genetically interacts with Hoxa1 during cardiac outflow tract development. Developmental Biology, 2015, 406, 247-258.	2.0	48
64	Multiple roles for HOXA3 in regulating thymus and parathyroid differentiation and morphogenesis in mouse. Development (Cambridge), 2014, 141, 3697-3708.	2.5	47
65	Type I IFNs Act upon Hematopoietic Progenitors To Protect and Maintain Hematopoiesis during <i>Pneumocystis</i> Lung Infection in Mice. Journal of Immunology, 2015, 195, 5347-5357.	0.8	43
66	Duplication of the Hoxd11 Gene Causes Alterations in the Axial and Appendicular Skeleton of the Mouse. Developmental Biology, 2002, 249, 96-107.	2.0	42
67	Analysis of homologous recombination in cultured mammalian cells in transient expression and stable transformation assays. Somatic Cell and Molecular Genetics, 1986, 12, 63-72.	0.7	41
68	Sepp1UF forms are N-terminal selenoprotein P truncations that have peroxidase activity when coupled with thioredoxin reductase-1. Free Radical Biology and Medicine, 2014, 69, 67-76.	2.9	37
69	Cardiac Bmi1 + cells contribute to myocardial renewal in the murine adult heart. Stem Cell Research and Therapy, 2015, 6, 205.	5.5	35
70	Deep-brain imaging via epi-fluorescence Computational Cannula Microscopy. Scientific Reports, 2017, 7, 44791.	3.3	33
71	Imaging activity in astrocytes and neurons with genetically encoded calcium indicators following in utero electroporation. Frontiers in Molecular Neuroscience, 2015, 8, 10.	2.9	31
72	Modeling synovial sarcoma metastasis in the mouse: PI3â€²-lipid signaling and inflammation. Journal of Experimental Medicine, 2016, 213, 2989-3005.	8.5	29

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73	Î²-catenin stabilization enhances<i>SS18-SSX2</i>-driven synovial sarcomagenesis and blocks the mesenchymal to epithelial transition. Oncotarget, 2015, 6, 22758-22766.	1.8	27
74	Nicotinic Receptor Alpha7 Expression Identifies a Novel Hematopoietic Progenitor Lineage. PLoS ONE, 2013, 8, e57481.	2.5	26
75	Effect of cell cycle position on transformation by microinjection. Somatic Cell and Molecular Genetics, 1985, 11, 43-51.	0.7	25
76	Silencing of retrotransposon-derived imprinted gene RTL1 is the main cause for postimplantational failures in mammalian cloning. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11071-E11080.	7.1	25
77	An examination of the Chiropteran HoxD locus from an evolutionary perspective. Evolution & Development, 2008, 10, 657-670.	2.0	24
78	A Microglia Sublineage Protects from Sex-Linked Anxiety Symptoms and Obsessive Compulsion. Cell Reports, 2019, 29, 791-799.e3.	6.4	24
79	In vivo evaluation of PhiC31 recombinase activity using a self-excision cassette. Nucleic Acids Research, 2008, 36, e134-e134.	14.5	22
80	Efficient germ-line transmission obtained with transgene-free induced pluripotent stem cells. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10678-10683.	7.1	21
81	HOXC8 initiates an ectopic mammary program by regulating Fgf10 and Tbx3 expression, and Wnt/Î²-catenin signaling. Development (Cambridge), 2015, 142, 4056-67.	2.5	21
82	How efficient can you get?. Nature, 1990, 348, 109-109.	27.8	19
83	YACs to the rescue. Nature, 1993, 362, 205-206.	27.8	19
84	Choose your target. Nature Genetics, 2000, 26, 159-161.	21.4	19
85	Toward an understanding of the short bone phenotype associated with multiple osteochondromas. Journal of Orthopaedic Research, 2013, 31, 651-657.	2.3	19
86	ETV4 and ETV5 drive synovial sarcoma through cell cycle and DUX4 embryonic pathway control. Journal of Clinical Investigation, 2021, 131, .	8.2	16
87	Lrig1 expression prospectively identifies stem cells in the ventricular-subventricular zone that are neurogenic throughout adult life. Neural Development, 2020, 15, 3.	2.4	15
88	The clear cell sarcoma functional genomic landscape. Journal of Clinical Investigation, 2021, 131, .	8.2	15
89	Fine-Tuning of iPSC Derivation by an Inducible Reprogramming System at the Protein Level. Stem Cell Reports, 2014, 2, 721-733.	4.8	14
90	HDAC2 Regulates Site-Specific Acetylation of MDM2 and Its Ubiquitination Signaling in Tumor Suppression. IScience, 2019, 13, 43-54.	4.1	13

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91	Human selenoprotein P and S variant mRNAs with different numbers of SECIS elements and inferences from mutant mice of the roles of multiple SECIS elements. Open Biology, 2016, 6, 160241.	3.6	12
92	Paracrine osteoprotegerin and Î²-catenin stabilization support synovial sarcomagenesis in periosteal cells. Journal of Clinical Investigation, 2017, 128, 207-218.	8.2	11
93	The Influential Role of BCL2 Family Members in Synovial Sarcomagenesis. Molecular Cancer Research, 2017, 15, 1733-1740.	3.4	10
94	Tapping the cellular telephone. Nature, 1990, 344, 105-105.	27.8	9
95	Response: Contributions of the Myf5-Independent Lineage to Myogenesis. Developmental Cell, 2014, 31, 539-541.	7.0	8
96	Efficient generation of selectionâ€geneâ€free rat knockout models by homologous recombination in ES cells. FEBS Letters, 2016, 590, 3416-3424.	2.8	7
97	Size and shape based chromosome separation in the inertial focusing device. Biomicrofluidics, 2020, 14, 064109.	2.4	6
98	The Making of a Scientist II (Nobel Lecture). ChemBioChem, 2008, 9, 1530-1543.	2.6	5
99	Gene Targeting. , 2012, , 19-35.		5
100	Derivation of Transgene-Free Rat Induced Pluripotent Stem Cells Approximating the Quality of Embryonic Stem Cells. Stem Cells Translational Medicine, 2017, 6, 340-351.	3.3	5
101	Site-Specific Recombination with Inverted Target Sites: A Cautionary Tale of Dicentric and Acentric Chromosomes. Genetics, 2020, 215, 923-930.	2.9	5
102	The origin and evolution of gene targeting. Developmental Biology, 2022, 481, 179-187.	2.0	5
103	Enhanced chromosome extraction from cells using a pinched flow microfluidic device. Biomedical Microdevices, 2020, 22, 25.	2.8	4
104	Defining the <i>Hoxb8</i> cell lineage during murine definitive hematopoiesis. Development (Cambridge), 2022, 149, .	2.5	3
105	Mouse fitness measures reveal incomplete functional redundancy of Hox paralogous group 1 proteins. PLoS ONE, 2017, 12, e0174975.	2.5	2
106	Genome-wide piggyBac transposon mediated screening reveals genes related to reprogramming. Protein and Cell, 2017, 8, 134-139.	11.0	0
107	Mice with targeted inactivation of nBmp2 exhibit increased daytime activity. FASEB Journal, 2009, 23, 685.3.	0.5	0
108	Mice bearing a targeted inactivation of nBmp2 show decreased muscle strength. FASEB Journal, 2009, 23, 685.2.	0.5	0

#	Article	IF	Citations
109	Mice bearing a targeted mutation of nBmp2 display decreased memory capabilities. FASEB Journal, 2010, 24, lb27.	0.5	0