

# Axel Visel

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

133  
papers

30,948  
citations

60  
h-index

166  
g-index

166  
ext. papers

39,293  
ext. citations

20.7  
avg, IF

8.16  
L-index

#	Paper	IF	Citations
133	Characterization of Mammalian In Vivo Enhancers Using Mouse Transgenesis and CRISPR Genome Editing.. <i>Methods in Molecular Biology</i> , <b>2022</b> , 2403, 147-186	1.4	0
132	Long-read metagenomics of soil communities reveals phylum-specific secondary metabolite dynamics. <i>Communications Biology</i> , <b>2021</b> , 4, 1302	6.7	2
131	Perfect and imperfect views of ultraconserved sequences. <i>Nature Reviews Genetics</i> , <b>2021</b> ,	30.1	1
130	SMAD4 target genes are part of a transcriptional network that integrates the response to BMP and SHH signaling during early limb bud patterning. <i>Development (Cambridge)</i> , <b>2021</b> , 148,	6.6	1
129	Ultraconserved enhancer function does not require perfect sequence conservation. <i>Nature Genetics</i> , <b>2021</b> , 53, 521-528	36.3	10
128	Deletion of a non-canonical regulatory sequence causes loss of Scn1a expression and epileptic phenotypes in mice. <i>Genome Medicine</i> , <b>2021</b> , 13, 69	14.4	5
127	A genomic catalog of Earth's microbiomes. <i>Nature Biotechnology</i> , <b>2021</b> , 39, 499-509	44.5	120
126	Plant single-cell solutions for energy and the environment. <i>Communications Biology</i> , <b>2021</b> , 4, 962	6.7	5
125	Bi-fated tendon-to-bone attachment cells are regulated by shared enhancers and KLF transcription factors. <i>ELife</i> , <b>2021</b> , 10,	8.9	15
124	Transcriptional network orchestrating regional patterning of cortical progenitors.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	2
123	Power in isolation: insights from single cells. <i>Nature Reviews Microbiology</i> , <b>2020</b> , 18, 364	22.2	0
122	Comprehensive InVivo Interrogation Reveals Phenotypic Impact of Human Enhancer Variants. <i>Cell</i> , <b>2020</b> , 180, 1262-1271.e15	56.2	34
121	Analysis of zebrafish periderm enhancers facilitates identification of a regulatory variant near human. <i>ELife</i> , <b>2020</b> , 9,	8.9	11
120	Regulatory Dynamics of Midfacial Growth in Evolution and Disease. <i>FASEB Journal</i> , <b>2020</b> , 34, 1-1	0.9	
119	Interrogating the Grainyhead-like 2 (Grhl2) genomic locus identifies an enhancer element that regulates palatogenesis in mouse. <i>Developmental Biology</i> , <b>2020</b> , 459, 194-203	3.1	4
118	FaceBase 3: analytical tools and FAIR resources for craniofacial and dental research. <i>Development (Cambridge)</i> , <b>2020</b> , 147,	6.6	8
117	Loss of Extreme Long-Range Enhancers in Human Neural Crest Drives a Craniofacial Disorder. <i>Cell Stem Cell</i> , <b>2020</b> , 27, 765-783.e14	18	24

116	The mole genome reveals regulatory rearrangements associated with adaptive intersexuality. <i>Science</i> , <b>2020</b> , 370, 208-214	33.3	9
115	An atlas of dynamic chromatin landscapes in mouse fetal development. <i>Nature</i> , <b>2020</b> , 583, 744-751	50.4	76
114	Spatiotemporal DNA methylome dynamics of the developing mouse fetus. <i>Nature</i> , <b>2020</b> , 583, 752-759	50.4	35
113	Perspectives on ENCODE. <i>Nature</i> , <b>2020</b> , 583, 693-698	50.4	61
112	Expanded encyclopaedias of DNA elements in the human and mouse genomes. <i>Nature</i> , <b>2020</b> , 583, 699-710	50.4	360
111	The changing mouse embryo transcriptome at whole tissue and single-cell resolution. <i>Nature</i> , <b>2020</b> , 583, 760-767	50.4	39
110	Supervised enhancer prediction with epigenetic pattern recognition and targeted validation. <i>Nature Methods</i> , <b>2020</b> , 17, 807-814	21.6	24
109	Noncoding deletions reveal a gene that is critical for intestinal function. <i>Nature</i> , <b>2019</b> , 571, 107-111	50.4	12
108	Cardiac Reprogramming Factors Synergistically Activate Genome-wide Cardiogenic Stage-Specific Enhancers. <i>Cell Stem Cell</i> , <b>2019</b> , 25, 69-86.e5	18	45
107	A Diagnosis for All Rare Genetic Diseases: The Horizon and the Next Frontiers. <i>Cell</i> , <b>2019</b> , 177, 32-37	56.2	53
106	Genomic Resolution of DLX-Orchestrated Transcriptional Circuits Driving Development of Forebrain GABAergic Neurons. <i>Cell Reports</i> , <b>2019</b> , 28, 2048-2063.e8	10.6	29
105	Stable enhancers are active in development, and fragile enhancers are associated with evolutionary adaptation. <i>Genome Biology</i> , <b>2019</b> , 20, 140	18.3	3
104	Cryptic inoviruses revealed as pervasive in bacteria and archaea across Earth's biomes. <i>Nature Microbiology</i> , <b>2019</b> , 4, 1895-1906	26.6	99
103	Transcriptomic analysis of field-droughted sorghum from seedling to maturity reveals biotic and metabolic responses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> ,	11.5	68
102	CRAGE enables rapid activation of biosynthetic gene clusters in undomesticated bacteria. <i>Nature Microbiology</i> , <b>2019</b> , 4, 2498-2510	26.6	48
101	Multilab EcoFAB study shows highly reproducible physiology and depletion of soil metabolites by a model grass. <i>New Phytologist</i> , <b>2019</b> , 222, 1149-1160	9.8	22
100	Single-nucleus analysis of accessible chromatin in developing mouse forebrain reveals cell-type-specific transcriptional regulation. <i>Nature Neuroscience</i> , <b>2018</b> , 21, 432-439	25.5	172
99	Enhancer redundancy provides phenotypic robustness in mammalian development. <i>Nature</i> , <b>2018</b> , 554, 239-243	50.4	275

98	Ultraconserved Enhancers Are Required for Normal Development. <i>Cell</i> , <b>2018</b> , 172, 491-499.e15	56.2	101
97	Dlx1 and Dlx2 Promote Interneuron GABA Synthesis, Synaptogenesis, and Dendritogenesis. <i>Cerebral Cortex</i> , <b>2018</b> , 28, 3797-3815	5.1	42
96	Diel rewiring and positive selection of ancient plant proteins enabled evolution of CAM photosynthesis in Agave. <i>BMC Genomics</i> , <b>2018</b> , 19, 588	4.5	25
95	Parkinson-Associated SNCA Enhancer Variants Revealed by Open Chromatin in Mouse Dopamine Neurons. <i>American Journal of Human Genetics</i> , <b>2018</b> , 103, 874-892	11	15
94	Dynamic 3D chromatin architecture contributes to enhancer specificity and limb morphogenesis. <i>Nature Genetics</i> , <b>2018</b> , 50, 1463-1473	36.3	95
93	Mutant phenotypes for thousands of bacterial genes of unknown function. <i>Nature</i> , <b>2018</b> , 557, 503-509	50.4	235
92	Improved regulatory element prediction based on tissue-specific local epigenomic signatures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, E1633-E1640	11.5	60
91	Widespread adenine N6-methylation of active genes in fungi. <i>Nature Genetics</i> , <b>2017</b> , 49, 964-968	36.3	181
90	HAND2 Target Gene Regulatory Networks Control Atrioventricular Canal and Cardiac Valve Development. <i>Cell Reports</i> , <b>2017</b> , 19, 1602-1613	10.6	30
89	1,003 reference genomes of bacterial and archaeal isolates expand coverage of the tree of life. <i>Nature Biotechnology</i> , <b>2017</b> , 35, 676-683	44.5	161
88	Limb-Enhancer Genie: An accessible resource of accurate enhancer predictions in the developing limb. <i>PLoS Computational Biology</i> , <b>2017</b> , 13, e1005720	5	12
87	Germline Chd8 haploinsufficiency alters brain development in mouse. <i>Nature Neuroscience</i> , <b>2017</b> , 20, 1062-1073	25.5	136
86	Composition and dosage of a multipartite enhancer cluster control developmental expression of <i>Ihh</i> (Indian hedgehog). <i>Nature Genetics</i> , <b>2017</b> , 49, 1539-1545	36.3	70
85	Genome-wide identification of bacterial plant colonization genes. <i>PLoS Biology</i> , <b>2017</b> , 15, e2002860	9.7	101
84	Transcriptional Networks Controlled by NKX2-1 in the Development of Forebrain GABAergic Neurons. <i>Neuron</i> , <b>2016</b> , 91, 1260-1275	13.9	71
83	52 Genetic Loci Influencing Myocardial Mass. <i>Journal of the American College of Cardiology</i> , <b>2016</b> , 68, 1435-1448	15.1	76
82	The Ties That Bind: Mapping the Dynamic Enhancer-Promoter Interactome. <i>Cell</i> , <b>2016</b> , 167, 1163-1166	56.2	19
81	Genome-wide compendium and functional assessment of in vivo heart enhancers. <i>Nature Communications</i> , <b>2016</b> , 7, 12923	17.4	51

80	Progressive Loss of Function in a Limb Enhancer during Snake Evolution. <i>Cell</i> , <b>2016</b> , 167, 633-642.e11	56.2	160
79	The FaceBase Consortium: a comprehensive resource for craniofacial researchers. <i>Development (Cambridge)</i> , <b>2016</b> , 143, 2677-88	6.6	35
78	A distal 594 bp ECR specifies Hmx1 expression in pinna and lateral facial morphogenesis and is regulated by the Hox-Pbx-Meis complex. <i>Development (Cambridge)</i> , <b>2016</b> , 143, 2582-92	6.6	9
77	A unique stylopod patterning mechanism by Shox2-controlled osteogenesis. <i>Development (Cambridge)</i> , <b>2016</b> , 143, 2548-60	6.6	10
76	Plant compartment and biogeography affect microbiome composition in cultivated and native Agave species. <i>New Phytologist</i> , <b>2016</b> , 209, 798-811	9.8	380
75	The Epigenomic Landscape of Prokaryotes. <i>PLoS Genetics</i> , <b>2016</b> , 12, e1005854	6	198
74	The Cacti Microbiome: Interplay between Habitat-Filtering and Host-Specificity. <i>Frontiers in Microbiology</i> , <b>2016</b> , 7, 150	5.7	112
73	Distal Limb Patterning Requires Modulation of cis-Regulatory Activities by HOX13. <i>Cell Reports</i> , <b>2016</b> , 17, 2913-2926	10.6	46
72	Fishing for Function in the Human Gene Pool. <i>Trends in Genetics</i> , <b>2016</b> , 32, 392-394	8.5	
71	Subpallial Enhancer Transgenic Lines: a Data and Tool Resource to Study Transcriptional Regulation of GABAergic Cell Fate. <i>Neuron</i> , <b>2016</b> , 92, 59-74	13.9	46
70	A single nucleotide polymorphism associated with isolated cleft lip and palate, thyroid cancer and hypothyroidism alters the activity of an oral epithelium and thyroid enhancer near FOXE1. <i>Human Molecular Genetics</i> , <b>2015</b> , 24, 3895-907	5.6	30
69	Disruptions of topological chromatin domains cause pathogenic rewiring of gene-enhancer interactions. <i>Cell</i> , <b>2015</b> , 161, 1012-1025	56.2	1207
68	Fuzzy GIS-based multi-criteria evaluation for US Agave production as a bioenergy feedstock. <i>GCB Bioenergy</i> , <b>2015</b> , 7, 84-99	5.6	17
67	Lineage-specific chromatin signatures reveal a regulator of lipid metabolism in microalgae. <i>Nature Plants</i> , <b>2015</b> , 1, 15107	11.5	60
66	The Joint Genome Institute's synthetic biology internal review process. <i>Journal of Responsible Innovation</i> , <b>2015</b> , 2, 133-136	2.1	
65	Occupancy by key transcription factors is a more accurate predictor of enhancer activity than histone modifications or chromatin accessibility. <i>Epigenetics and Chromatin</i> , <b>2015</b> , 8, 16	5.8	71
64	Pbx Regulates Patterning of the Cerebral Cortex in Progenitors and Postmitotic Neurons. <i>Neuron</i> , <b>2015</b> , 88, 1192-1207	13.9	37
63	Genomic perspectives of transcriptional regulation in forebrain development. <i>Neuron</i> , <b>2015</b> , 85, 27-47	13.9	109

62	Function-based identification of mammalian enhancers using site-specific integration. <i>Nature Methods</i> , <b>2014</b> , 11, 566-71	21.6	59
61	An etiologic regulatory mutation in IRF6 with loss- and gain-of-function effects. <i>Human Molecular Genetics</i> , <b>2014</b> , 23, 2711-20	5.6	39
60	Tissue-specific SMARCA4 binding at active and repressed regulatory elements during embryogenesis. <i>Genome Research</i> , <b>2014</b> , 24, 920-9	9.7	47
59	Stop codon reassignments in the wild. <i>Science</i> , <b>2014</b> , 344, 909-13	33.3	83
58	Principles of regulatory information conservation between mouse and human. <i>Nature</i> , <b>2014</b> , 515, 371-375	50.4	190
57	HAND2 targets define a network of transcriptional regulators that compartmentalize the early limb bud mesenchyme. <i>Developmental Cell</i> , <b>2014</b> , 31, 345-357	10.2	69
56	Identification of novel craniofacial regulatory domains located far upstream of SOX9 and disrupted in Pierre Robin sequence. <i>Human Mutation</i> , <b>2014</b> , 35, 1011-20	4.7	54
55	Dynamic GATA4 enhancers shape the chromatin landscape central to heart development and disease. <i>Nature Communications</i> , <b>2014</b> , 5, 4907	17.4	102
54	Methane yield phenotypes linked to differential gene expression in the sheep rumen microbiome. <i>Genome Research</i> , <b>2014</b> , 24, 1517-25	9.7	197
53	Multiple conserved regulatory domains promote Fezf2 expression in the developing cerebral cortex. <i>Neural Development</i> , <b>2014</b> , 9, 6	3.9	14
52	Tissue-specific RNA expression marks distant-acting developmental enhancers. <i>PLoS Genetics</i> , <b>2014</b> , 10, e1004610	6	80
51	Transcriptional regulation of enhancers active in protodomains of the developing cerebral cortex. <i>Neuron</i> , <b>2014</b> , 82, 989-1003	13.9	73
50	Rapid and pervasive changes in genome-wide enhancer usage during mammalian development. <i>Cell</i> , <b>2013</b> , 155, 1521-31	56.2	256
49	De novo transcriptome assembly of drought tolerant CAM plants, <i>Agave deserti</i> and <i>Agave tequilana</i> . <i>BMC Genomics</i> , <b>2013</b> , 14, 563	4.5	79
48	Dlx1&2-dependent expression of Zfhx1b (Sip1, Zeb2) regulates the fate switch between cortical and striatal interneurons. <i>Neuron</i> , <b>2013</b> , 77, 83-98	13.9	122
47	A high-resolution enhancer atlas of the developing telencephalon. <i>Cell</i> , <b>2013</b> , 152, 895-908	56.2	189
46	Fine tuning of craniofacial morphology by distant-acting enhancers. <i>Science</i> , <b>2013</b> , 342, 1241006	33.3	157
45	Functional anatomy of distant-acting mammalian enhancers. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2013</b> , 368, 20120359	5.8	30

44	Chromatin stretch enhancer states drive cell-specific gene regulation and harbor human disease risk variants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 17921-6	11.5	477
43	Congenital heart defects in patients with deletions upstream of SOX9. <i>Human Mutation</i> , <b>2013</b> , 34, 1628-31	3.7	27
42	Use of "MGE enhancers" for labeling and selection of embryonic stem cell-derived medial ganglionic eminence (MGE) progenitors and neurons. <i>PLoS ONE</i> , <b>2013</b> , 8, e61956	3.7	25
41	An integrated encyclopedia of DNA elements in the human genome. <i>Nature</i> , <b>2012</b> , 489, 57-74	50.4	11449
40	Differences in enhancer activity in mouse and zebrafish reporter assays are often associated with changes in gene expression. <i>BMC Genomics</i> , <b>2012</b> , 13, 713	4.5	16
39	Large-scale discovery of enhancers from human heart tissue. <i>Nature Genetics</i> , <b>2011</b> , 44, 89-93	36.3	197
38	Metagenomic discovery of biomass-degrading genes and genomes from cow rumen. <i>Science</i> , <b>2011</b> , 331, 463-7	33.3	893
37	The FaceBase Consortium: a comprehensive program to facilitate craniofacial research. <i>Developmental Biology</i> , <b>2011</b> , 355, 175-82	3.1	59
36	A liver enhancer in the fibrinogen gene cluster. <i>Blood</i> , <b>2011</b> , 117, 276-82	2.2	16
35	Targeted deletion of the 9p21 non-coding coronary artery disease risk interval in mice. <i>Nature</i> , <b>2010</b> , 464, 409-12	50.4	380
34	ChIP-Seq identification of weakly conserved heart enhancers. <i>Nature Genetics</i> , <b>2010</b> , 42, 806-10	36.3	343
33	Homotypic clusters of transcription factor binding sites are a key component of human promoters and enhancers. <i>Genome Research</i> , <b>2010</b> , 20, 565-77	9.7	167
32	Transcriptional control of axonal guidance and sorting in dorsal interneurons by the Lim-HD proteins Lhx9 and Lhx1. <i>Neural Development</i> , <b>2009</b> , 4, 21	3.9	68
31	ChIP-seq accurately predicts tissue-specific activity of enhancers. <i>Nature</i> , <b>2009</b> , 457, 854-8	50.4	1301
30	Genomic views of distant-acting enhancers. <i>Nature</i> , <b>2009</b> , 461, 199-205	50.4	451
29	Functional autonomy of distant-acting human enhancers. <i>Genomics</i> , <b>2009</b> , 93, 509-13	4.3	49
28	Ultraconservation identifies a small subset of extremely constrained developmental enhancers. <i>Nature Genetics</i> , <b>2008</b> , 40, 158-60	36.3	253
27	Disruption of an AP-2alpha binding site in an IRF6 enhancer is associated with cleft lip. <i>Nature Genetics</i> , <b>2008</b> , 40, 1341-7	36.3	338

26	Human-specific gain of function in a developmental enhancer. <i>Science</i> , <b>2008</b> , 321, 1346-50	33.3	260
25	Transmembrane protein 50b (C21orf4), a candidate for Down syndrome neurophenotypes, encodes an intracellular membrane protein expressed in the rodent brain. <i>Neuroscience</i> , <b>2008</b> , 154, 1255-66	3.9	10
24	Combinatorial regulation of endothelial gene expression by ets and forkhead transcription factors. <i>Cell</i> , <b>2008</b> , 135, 1053-64	56.2	245
23	Genome-wide atlas of gene expression in the adult mouse brain. <i>Nature</i> , <b>2007</b> , 445, 168-76	50.4	3675
22	VISTA Enhancer Browser--a database of tissue-specific human enhancers. <i>Nucleic Acids Research</i> , <b>2007</b> , 35, D88-92	20.1	700
21	Regulatory pathway analysis by high-throughput in situ hybridization. <i>PLoS Genetics</i> , <b>2007</b> , 3, 1867-83	6	50
20	Deletion of ultraconserved elements yields viable mice. <i>PLoS Biology</i> , <b>2007</b> , 5, e234	9.7	217
19	Enhancer identification through comparative genomics. <i>Seminars in Cell and Developmental Biology</i> , <b>2007</b> , 18, 140-52	7.5	81
18	Comprehensive analysis of the expression patterns of the adenylate cyclase gene family in the developing and adult mouse brain. <i>Journal of Comparative Neurology</i> , <b>2006</b> , 496, 684-97	3.4	51
17	In vivo enhancer analysis of human conserved non-coding sequences. <i>Nature</i> , <b>2006</b> , 444, 499-502	50.4	911
16	Comprehensive expression atlas of fibroblast growth factors and their receptors generated by a novel robotic in situ hybridization platform. <i>Developmental Dynamics</i> , <b>2005</b> , 234, 371-86	2.9	118
15	GenePaint.org: an atlas of gene expression patterns in the mouse embryo. <i>Nucleic Acids Research</i> , <b>2004</b> , 32, D552-6	20.1	390
14	Scaffolding by ERK3 regulates MK5 in development. <i>EMBO Journal</i> , <b>2004</b> , 23, 4770-9	13	93
13	Expression of the winged helix/forkhead gene, foxn4, during zebrafish development. <i>Developmental Brain Research</i> , <b>2004</b> , 153, 115-9		15
12	Adenylate Cyclase 1 dependent refinement of retinotopic maps in the mouse. <i>Vision Research</i> , <b>2004</b> , 44, 3357-64	2.1	19
11	A Gene Expression Map of the Mouse Brain <b>2003</b> , 19-35		3
10	Heterozygous mutation to Chd8 causes macrocephaly and widespread alteration of neurodevelopmental transcriptional networks in mouse		1
9	Single nucleus analysis of the chromatin landscape in mouse forebrain development		2



8	Systematic mapping of chromatin state landscapes during mouse development	15
7	Spatiotemporal DNA Methylome Dynamics of the Developing Mammalian Fetus	11
6	Transcriptional Network Orchestrating Regional Patterning of Cortical Progenitors	2
5	A cross-organism framework for supervised enhancer prediction with epigenetic pattern recognition and targeted validation	5
4	Multi-lab EcoFAB study shows highly reproducible physiology and depletion of soil metabolites by a model grass	3
3	Cryptic inoviruses are pervasive in bacteria and archaea across Earth's biomes	2
2	Genome-Wide Fetalization of Enhancer Architecture in Heart Disease	6
1	Long-read metagenomics of soil communities reveals phylum-specific secondary metabolite dynamics	2