AleÅ¡ Cvekl

List of Publications by Year in descending order

79 papers	4,753 citations	81900 39 h-index	102487 66 g-index
81 all docs	81 docs citations	81 times ranked	5153 citing authors

#	Article	IF	Citations
1	Cell fate decisions, transcription factors and signaling during early retinal development. Progress in Retinal and Eye Research, 2022, 91, 101093.	15.5	35
2	Morphometric analysis of the lens in human aniridia and mouse Small eye. Experimental Eye Research, 2021, 203, 108371.	2.6	7
3	Crystallin gene expression: Insights from studies of transcriptional bursting. Experimental Eye Research, 2021, 207, 108564.	2.6	11
4	A distal enhancer that directs Otx2 expression in the retinal pigment epithelium and neuroretina. Developmental Dynamics, 2020, 249, 209-221.	1.8	6
5	Rinf Regulates Pluripotency Network Genes and Tet Enzymes in Embryonic Stem Cells. Cell Reports, 2019, 28, 1993-2003.e5.	6.4	18
6	Generation, transcriptome profiling, and functional validation of cone-rich human retinal organoids. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10824-10833.	7.1	138
7	Profiling of chromatin accessibility and identification of general cis-regulatory mechanisms that control two ocular lens differentiation pathways. Epigenetics and Chromatin, 2019, 12, 27.	3.9	34
8	Transcriptomic analysis and novel insights into lens fibre cell differentiation regulated by Gata3. Open Biology, 2019, 9, 190220.	3.6	9
9	Bidirectional Analysis of Cryba4-Crybb1 Nascent Transcription and Nuclear Accumulation of Crybb3 mRNAs in Lens Fibers. , 2019, 60, 234.		11
10	Proteome-transcriptome analysis and proteome remodeling in mouse lens epithelium and fibers. Experimental Eye Research, 2019, 179, 32-46.	2.6	40
11	Promoter-enhancer looping and shadow enhancers of the mouse Î±A-crystallin locus. Biology Open, 2018, 7, .	1.2	6
12	Six3 and Six6 Are Jointly Required for the Maintenance of Multipotent Retinal Progenitors through Both Positive and Negative Regulation. Cell Reports, 2018, 25, 2510-2523.e4.	6.4	48
13	Identification of Novel Gata3 Distal Enhancers Active in Mouse Embryonic Lens. Developmental Dynamics, 2018, 247, 1186-1198.	1.8	10
14	Transcriptional burst fraction and size dynamics during lens fiber cell differentiation and detailed insights into the denucleation process. Journal of Biological Chemistry, 2018, 293, 13176-13190.	3.4	18
15	BNIP3L/NIX is required for elimination of mitochondria, endoplasmic reticulum and Golgi apparatus during eye lens organelle-free zone formation. Experimental Eye Research, 2018, 174, 173-184.	2.6	58
16	A comprehensive spatial-temporal transcriptomic analysis of differentiating nascent mouse lens epithelial and fiber cells. Experimental Eye Research, 2018, 175, 56-72.	2.6	37
17	PAX6: 25th anniversary and more to learn. Experimental Eye Research, 2017, 156, 10-21.	2.6	106
18	Programmed mitophagy is essential for the glycolytic switch during cell differentiation. EMBO Journal, 2017, 36, 1688-1706.	7.8	245

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19	N-myc regulates growth and fiber cell differentiation in lens development. Developmental Biology, 2017, 429, 105-117.	2.0	37
20	Six3 in a small population of progenitors at E8.5 is required for neuroretinal specification via regulating cell signaling and survival in mice. Developmental Biology, 2017, 428, 164-175.	2.0	15
21	Evolutionary Origins of Pax6 Control of Crystallin Genes. Genome Biology and Evolution, 2017, 9, 2075-2092.	2.5	20
22	Signaling and Gene Regulatory Networks in Mammalian Lens Development. Trends in Genetics, 2017, 33, 677-702.	6.7	128
23	Pax6 associates with H3K4-specific histone methyltransferases Mll1, Mll2, and Set1a and regulates H3K4 methylation at promoters and enhancers. Epigenetics and Chromatin, 2016, 9, 37.	3.9	25
24	Intercellular Adhesion-Dependent Cell Survival and ROCK-Regulated Actomyosin-Driven Forces Mediate Self-Formation of a Retinal Organoid. Stem Cell Reports, 2016, 6, 743-756.	4.8	89
25	Chromatin remodeling enzyme Snf2h regulates embryonic lens differentiation and denucleation. Development (Cambridge), 2016, 143, 1937-1947.	2.5	41
26	Regulation of c-Maf and Î±A-Crystallin in Ocular Lens by Fibroblast Growth Factor Signaling. Journal of Biological Chemistry, 2016, 291, 3947-3958.	3.4	39
27	Unfoldedâ€protein responseâ€associated stabilization of p27(Cdkn1b) interferes with lens fiber cell denucleation, leading to cataract. FASEB Journal, 2016, 30, 1087-1095.	0.5	28
28	Large Maf Transcription Factors: Cousins of AP-1 Proteins and Important Regulators of Cellular Differentiation. The Einstein Journal of Biology and Medicine: EJBM, 2016, 23, 2.	0.2	79
29	Lens Biology and Biochemistry. Progress in Molecular Biology and Translational Science, 2015, 134, 169-201.	1.7	71
30	Identification of<i>in vivo</i>DNA-binding mechanisms of Pax6 and reconstruction of Pax6-dependent gene regulatory networks during forebrain and lens development. Nucleic Acids Research, 2015, 43, 6827-6846.	14.5	102
31	Lens Development and Crystallin Gene Expression. Progress in Molecular Biology and Translational Science, 2015, 134, 129-167.	1.7	52
32	Chromatin features, RNA polymerase II and the comparative expression of lens genes encoding crystallins, transcription factors, and autophagy mediators. Molecular Vision, 2015, 21, 955-73.	1.1	18
33	Mammalian TBX1 Preferentially Binds and Regulates Downstream Targets Via a Tandem T-site Repeat. PLoS ONE, 2014, 9, e95151.	2.5	33
34	The cellular and molecular mechanisms of vertebrate lens development. Development (Cambridge), 2014, 141, 4432-4447.	2.5	171
35	Lens-Specific Transcription Factors and Their Roles in Diagnosis and Treatment of Human Congenital Cataract. , 2014, , 105-130.		0
36	Gene regulation by PAX6: structural-functional correlations of missense mutants and transcriptional control of Trpm3/miR-204. Molecular Vision, 2014, 20, 270-82.	1.1	16

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37	Constitutive overexpression of Norrin activates Wnt/Î²-catenin and endothelin-2 signaling to protect photoreceptors from light damage. Neurobiology of Disease, 2013, 50, 1-12.	4.4	51
38	Functional dissection of the paired domain of Pax6 reveals molecular mechanisms of coordinating neurogenesis and proliferation. Development (Cambridge), 2013, 140, 1123-1136.	2.5	67
39	Lens Differentiation from Embryonic Stem (ES) and Induced Pluripotent Stem (iPS) Cells. , 2013, , 57-73.		0
40	Identification and Characterization of FGF2-Dependent mRNA: microRNA Networks During Lens Fiber Cell Differentiation. G3: Genes, Genomes, Genetics, 2013, 3, 2239-2255.	1.8	41
41	Pax6 Regulates Gene Expression in the Vertebrate Lens through miR-204. PLoS Genetics, 2013, 9, e1003357.	3.5	86
42	Histone posttranslational modifications and cell fate determination: lens induction requires the lysine acetyltransferases CBP and p300. Nucleic Acids Research, 2013, 41, 10199-10214.	14.5	54
43	Pax6 Interactions with Chromatin and Identification of Its Novel Direct Target Genes in Lens and Forebrain. PLoS ONE, 2013, 8, e54507.	2.5	72
44	Focus on Molecules: Brg1: A range of functions during eye development. Experimental Eye Research, 2012, 103, 117-118.	2.6	1
45	The Orchestration of Mammalian Tissue Morphogenesis through a Series of Coherent Feed-forward Loops. Journal of Biological Chemistry, 2011, 286, 43259-43271.	3.4	58
46	Chromatin remodeling enzyme Brg1 is required for mouse lens fiber cell terminal differentiation and its denucleation. Epigenetics and Chromatin, 2010, 3, 21.	3.9	55
47	Lens Fiber Cell Differentiation and Denucleation Are Disrupted through Expression of the N-Terminal Nuclear Receptor Box of<i>Ncoa6</i>and Result in p53-dependent and p53-independent Apoptosis. Molecular Biology of the Cell, 2010, 21, 2453-2468.	2.1	36
48	Efficient generation of lens progenitor cells and lentoid bodies from human embryonic stem cells in chemically defined conditions. FASEB Journal, 2010, 24, 3274-3283.	0.5	98
49	The Transcription Factor Pax6 Regulates Survival of Dopaminergic Olfactory Bulb Neurons via Crystallin Î±A. Neuron, 2010, 68, 682-694.	8.1	98
50	Perturbing the Ubiquitin Pathway Reveals How Mitosis Is Hijacked to Denucleate and Regulate Cell Proliferation and Differentiation In Vivo. PLoS ONE, 2010, 5, e13331.	2.5	31
51	Retinoic acid signaling in mammalian eye development. Experimental Eye Research, 2009, 89, 280-291.	2.6	153
52	Identification of Pax6-Dependent Gene Regulatory Networks in the Mouse Lens. PLoS ONE, 2009, 4, e4159.	2.5	78
53	Transcriptional regulation of mouse alpha A-crystallin gene in a 148kb Cryaa BAC and its derivates. BMC Developmental Biology, 2008, 8, 88.	2.1	17
54	Cell autonomous roles for APâ€2Î± in lens vesicle separation and maintenance of the lens epithelial cell phenotype. Developmental Dynamics, 2008, 237, 602-617.	1.8	59

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55	Cited2 is required for the proper formation of the hyaloid vasculature and for lens morphogenesis. Development (Cambridge), 2008, 135, 2939-2948.	2.5	44
56	Dual requirement for Pax6 in retinal progenitor cells. Development (Cambridge), 2008, 135, 4037-4047.	2.5	92
57	Rybp, a polycomb complex-associated protein, is required for mouse eye development. BMC Developmental Biology, 2007, 7, 39.	2.1	28
58	Genetic and epigenetic mechanisms of gene regulation during lens development. Progress in Retinal and Eye Research, 2007, 26, 555-597.	15.5	143
59	Regulation of Î±A-crystallin via Pax6, c-Maf, CREB and a broad domain of lens-specific chromatin. EMBO Journal, 2006, 25, 2107-2118.	7.8	93
60	Ectopic Norrin Induces Growth of Ocular Capillaries and Restores Normal Retinal Angiogenesis in Norrie Disease Mutant Mice. Journal of Neuroscience, 2005, 25, 1701-1710.	3.6	88
61	Tissue-specific Regulation of the Mouse Î±A-crystallin Gene in Lens via Recruitment of Pax6 and c-Maf to its Promoter. Journal of Molecular Biology, 2005, 351, 453-469.	4.2	51
62	Functional Properties of Natural Human PAX6 and PAX6(5a) Mutants. Investigative Ophthalmology and Visual Science, 2004, 45, 385-392.	3.3	48
63	Lens Crystallins. , 2004, , 119-150.		10
64	Regulation of gene expression by Pax6 in ocular cells: a case of tissue-preferred expression of crystallins in lens. International Journal of Developmental Biology, 2004, 48, 829-844.	0.6	92
65	Functional interactions between alternatively spliced forms of Pax6 in crystallin gene regulation and in haploinsufficiency. Nucleic Acids Research, 2004, 32, 1696-1709.	14.5	62
66	Anterior eye development and ocular mesenchyme: new insights from mouse models and human diseases. BioEssays, 2004, 26, 374-386.	2.5	262
67	Transcriptional Regulation of Mouse Î±B- and Î³F-Crystallin Genes in Lens: Opposite Promoter-specific Interactions Between Pax6 and Large Maf Transcription Factors. Journal of Molecular Biology, 2004, 344, 351-368.	4.2	57
68	Pax6 heterozygous eyes show defects in chamber angle differentiation that are associated with a wide spectrum of other anterior eye segment abnormalities. Mechanisms of Development, 2002, 118, 3-17.	1.7	132
69	Regulation of human myocilin/TIGR gene transcription in trabecular meshwork cells and astrocytes: role of upstream stimulatory factor. Genes To Cells, 2000, 5, 661-676.	1.2	30
70	Regulation of Î±A-crystallin Gene Expression. Journal of Biological Chemistry, 1999, 274, 19973-19978.	3.4	28
71	Involvement of Retinoic Acid/Retinoid Receptors in the Regulation of Murine Î±B-crystallin/Small Heat Shock Protein Gene Expression in the Lens. Journal of Biological Chemistry, 1998, 273, 17954-17961.	3.4	70
72	Dual Roles for Pax-6: a Transcriptional Repressor of Lens Fiber Cell-Specific Î²-Crystallin Genes. Molecular and Cellular Biology, 1998, 18, 5579-5586.	2.3	132

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73	Lens-preferred activity of chicken Î´1- and Î´2-crystallin enhancers in transgenic mice and evidence for retinoic acid-responsive regulation of the Î´1-crystallin gene. Genesis, 1997, 20, 258-266.	2.1	33
74	Lensâ€preferred activity of chicken Î´1â€•and Î´2â€crystallin enhancers in transgenic mice and evidence for retinoic acidâ€responsive regulation of the Î´1â€crystallin gene. Genesis, 1997, 20, 258-266.	2.1	3
75	Lens-Specific Expression of a Chicken Î²A3/A1-Crystallin Promoter Fragment in Transgenic Mice. Biochemical and Biophysical Research Communications, 1996, 221, 559-564.	2.1	27
76	Lens development and crystallin gene expression: many roles for Paxâ€6. BioEssays, 1996, 18, 621-630.	2.5	272
77	Pax-6 and Î±B-crystallin/Small Heat Shock Protein Gene Regulation in the Murine Lens INTERACTION WITH THE LENS-SPECIFIC REGIONS, LSR1 AND LSR2. Journal of Biological Chemistry, 1996, 271, 23029-23036.	3.4	68
78	Sequence, initial functional analysis and protein-DNA binding sites of the mouse Î²B2-crystallin-encoding gene. Gene, 1995, 166, 287-292.	2.2	28
79	Interactions between proteins bound to the duck Î²A-globin gene promoter and enhancer detected by the DNaseI footprinting. Gene, 1992, 110, 225-228.	2.2	4