

# AleÅ; Cvekl

## List of Publications by Year in descending order

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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	Lens development and crystallin gene expression: many roles for Pax6. <i>BioEssays</i> , 1996, 18, 621-630.	2.5	272
2	Anterior eye development and ocular mesenchyme: new insights from mouse models and human diseases. <i>BioEssays</i> , 2004, 26, 374-386.	2.5	262
3	Programmed mitophagy is essential for the glycolytic switch during cell differentiation. <i>EMBO Journal</i> , 2017, 36, 1688-1706.	7.8	245
4	The cellular and molecular mechanisms of vertebrate lens development. <i>Development (Cambridge)</i> , 2014, 141, 4432-4447.	2.5	171
5	Retinoic acid signaling in mammalian eye development. <i>Experimental Eye Research</i> , 2009, 89, 280-291.	2.6	153
6	Genetic and epigenetic mechanisms of gene regulation during lens development. <i>Progress in Retinal and Eye Research</i> , 2007, 26, 555-597.	15.5	143
7	Generation, transcriptome profiling, and functional validation of cone-rich human retinal organoids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 10824-10833.	7.1	138
8	Dual Roles for Pax-6: a Transcriptional Repressor of Lens Fiber Cell-Specific $\beta$ -Crystallin Genes. <i>Molecular and Cellular Biology</i> , 1998, 18, 5579-5586.	2.3	132
9	Pax6 heterozygous eyes show defects in chamber angle differentiation that are associated with a wide spectrum of other anterior eye segment abnormalities. <i>Mechanisms of Development</i> , 2002, 118, 3-17.	1.7	132
10	Signaling and Gene Regulatory Networks in Mammalian Lens Development. <i>Trends in Genetics</i> , 2017, 33, 677-702.	6.7	128
11	PAX6: 25th anniversary and more to learn. <i>Experimental Eye Research</i> , 2017, 156, 10-21.	2.6	106
12	Identification of <i>in vivo</i> DNA-binding mechanisms of Pax6 and reconstruction of Pax6-dependent gene regulatory networks during forebrain and lens development. <i>Nucleic Acids Research</i> , 2015, 43, 6827-6846.	14.5	102
13	Efficient generation of lens progenitor cells and lentoid bodies from human embryonic stem cells in chemically defined conditions. <i>FASEB Journal</i> , 2010, 24, 3274-3283.	0.5	98
14	The Transcription Factor Pax6 Regulates Survival of Dopaminergic Olfactory Bulb Neurons via Crystallin 1A. <i>Neuron</i> , 2010, 68, 682-694.	8.1	98
15	Regulation of $\beta$ -crystallin via Pax6, c-Maf, CREB and a broad domain of lens-specific chromatin. <i>EMBO Journal</i> , 2006, 25, 2107-2118.	7.8	93
16	Regulation of gene expression by Pax6 in ocular cells: a case of tissue-preferred expression of crystallins in lens. <i>International Journal of Developmental Biology</i> , 2004, 48, 829-844.	0.6	92
17	Dual requirement for Pax6 in retinal progenitor cells. <i>Development (Cambridge)</i> , 2008, 135, 4037-4047.	2.5	92
18	Intercellular Adhesion-Dependent Cell Survival and ROCK-Regulated Actomyosin-Driven Forces Mediate Self-Formation of a Retinal Organoid. <i>Stem Cell Reports</i> , 2016, 6, 743-756.	4.8	89

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19	Ectopic Norrin Induces Growth of Ocular Capillaries and Restores Normal Retinal Angiogenesis in Norrie Disease Mutant Mice. <i>Journal of Neuroscience</i> , 2005, 25, 1701-1710.	3.6	88
20	Pax6 Regulates Gene Expression in the Vertebrate Lens through miR-204. <i>PLoS Genetics</i> , 2013, 9, e1003357.	3.5	86
21	Large Maf Transcription Factors: Cousins of AP-1 Proteins and Important Regulators of Cellular Differentiation. <i>The Einstein Journal of Biology and Medicine: EJBM</i> , 2016, 23, 2.	0.2	79
22	Identification of Pax6-Dependent Gene Regulatory Networks in the Mouse Lens. <i>PLoS ONE</i> , 2009, 4, e4159.	2.5	78
23	Pax6 Interactions with Chromatin and Identification of Its Novel Direct Target Genes in Lens and Forebrain. <i>PLoS ONE</i> , 2013, 8, e54507.	2.5	72
24	Lens Biology and Biochemistry. <i>Progress in Molecular Biology and Translational Science</i> , 2015, 134, 169-201.	1.7	71
25	Involvement of Retinoic Acid/Retinoid Receptors in the Regulation of Murine $\beta$ -crystallin/Small Heat Shock Protein Gene Expression in the Lens. <i>Journal of Biological Chemistry</i> , 1998, 273, 17954-17961.	3.4	70
26	Pax-6 and $\beta$ -crystallin/Small Heat Shock Protein Gene Regulation in the Murine Lens INTERACTION WITH THE LENS-SPECIFIC REGIONS, LSR1 AND LSR2. <i>Journal of Biological Chemistry</i> , 1996, 271, 23029-23036.	3.4	68
27	Functional dissection of the paired domain of Pax6 reveals molecular mechanisms of coordinating neurogenesis and proliferation. <i>Development (Cambridge)</i> , 2013, 140, 1123-1136.	2.5	67
28	Functional interactions between alternatively spliced forms of Pax6 in crystallin gene regulation and in haploinsufficiency. <i>Nucleic Acids Research</i> , 2004, 32, 1696-1709.	14.5	62
29	Cell autonomous roles for AP-2 in lens vesicle separation and maintenance of the lens epithelial cell phenotype. <i>Developmental Dynamics</i> , 2008, 237, 602-617.	1.8	59
30	The Orchestration of Mammalian Tissue Morphogenesis through a Series of Coherent Feed-forward Loops. <i>Journal of Biological Chemistry</i> , 2011, 286, 43259-43271.	3.4	58
31	BNIP3L/NIX is required for elimination of mitochondria, endoplasmic reticulum and Golgi apparatus during eye lens organelle-free zone formation. <i>Experimental Eye Research</i> , 2018, 174, 173-184.	2.6	58
32	Transcriptional Regulation of Mouse $\beta$ - and $\gamma$ -Crystallin Genes in Lens: Opposite Promoter-specific Interactions Between Pax6 and Large Maf Transcription Factors. <i>Journal of Molecular Biology</i> , 2004, 344, 351-368.	4.2	57
33	Chromatin remodeling enzyme Brg1 is required for mouse lens fiber cell terminal differentiation and its denucleation. <i>Epigenetics and Chromatin</i> , 2010, 3, 21.	3.9	55
34	Histone posttranslational modifications and cell fate determination: lens induction requires the lysine acetyltransferases CBP and p300. <i>Nucleic Acids Research</i> , 2013, 41, 10199-10214.	14.5	54
35	Lens Development and Crystallin Gene Expression. <i>Progress in Molecular Biology and Translational Science</i> , 2015, 134, 129-167.	1.7	52
36	Tissue-specific Regulation of the Mouse $\alpha$ -crystallin Gene in Lens via Recruitment of Pax6 and c-Maf to its Promoter. <i>Journal of Molecular Biology</i> , 2005, 351, 453-469.	4.2	51

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37	Constitutive overexpression of Norrin activates Wnt/ $\beta$ -catenin and endothelin-2 signaling to protect photoreceptors from light damage. <i>Neurobiology of Disease</i> , 2013, 50, 1-12.	4.4	51
38	Functional Properties of Natural Human PAX6 and PAX6(5a) Mutants. <i>Investigative Ophthalmology and Visual Science</i> , 2004, 45, 385-392.	3.3	48
39	Six3 and Six6 Are Jointly Required for the Maintenance of Multipotent Retinal Progenitors through Both Positive and Negative Regulation. <i>Cell Reports</i> , 2018, 25, 2510-2523.e4.	6.4	48
40	Cited2 is required for the proper formation of the hyaloid vasculature and for lens morphogenesis. <i>Development (Cambridge)</i> , 2008, 135, 2939-2948.	2.5	44
41	Identification and Characterization of FGF2-Dependent mRNA: microRNA Networks During Lens Fiber Cell Differentiation. <i>G3: Genes, Genomes, Genetics</i> , 2013, 3, 2239-2255.	1.8	41
42	Chromatin remodeling enzyme Snf2h regulates embryonic lens differentiation and denucleation. <i>Development (Cambridge)</i> , 2016, 143, 1937-1947.	2.5	41
43	Proteome-transcriptome analysis and proteome remodeling in mouse lens epithelium and fibers. <i>Experimental Eye Research</i> , 2019, 179, 32-46.	2.6	40
44	Regulation of c-Maf and $\beta$ -Crystallin in Ocular Lens by Fibroblast Growth Factor Signaling. <i>Journal of Biological Chemistry</i> , 2016, 291, 3947-3958.	3.4	39
45	N-myc regulates growth and fiber cell differentiation in lens development. <i>Developmental Biology</i> , 2017, 429, 105-117.	2.0	37
46	A comprehensive spatial-temporal transcriptomic analysis of differentiating nascent mouse lens epithelial and fiber cells. <i>Experimental Eye Research</i> , 2018, 175, 56-72.	2.6	37
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. <i>Molecular Biology of the Cell</i> , 2010, 21, 2453-2468.	2.1	36
48	Cell fate decisions, transcription factors and signaling during early retinal development. <i>Progress in Retinal and Eye Research</i> , 2022, 91, 101093.	15.5	35
49	Profiling of chromatin accessibility and identification of general cis-regulatory mechanisms that control two ocular lens differentiation pathways. <i>Epigenetics and Chromatin</i> , 2019, 12, 27.	3.9	34
50	Lens-preferred activity of chicken $\beta$ 1- and $\beta$ 2-crystallin enhancers in transgenic mice and evidence for retinoic acid-responsive regulation of the $\beta$ 1-crystallin gene. <i>Genesis</i> , 1997, 20, 258-266.	2.1	33
51	Mammalian TBX1 Preferentially Binds and Regulates Downstream Targets Via a Tandem T-site Repeat. <i>PLoS ONE</i> , 2014, 9, e95151.	2.5	33
52	Perturbing the Ubiquitin Pathway Reveals How Mitosis Is Hijacked to Denucleate and Regulate Cell Proliferation and Differentiation In Vivo. <i>PLoS ONE</i> , 2010, 5, e13331.	2.5	31
53	Regulation of human myocilin/TIGR gene transcription in trabecular meshwork cells and astrocytes: role of upstream stimulatory factor. <i>Genes To Cells</i> , 2000, 5, 661-676.	1.2	30
54	Sequence, initial functional analysis and protein-DNA binding sites of the mouse $\beta$ 2-crystallin-encoding gene. <i>Gene</i> , 1995, 166, 287-292.	2.2	28

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55	Regulation of $\alpha$ -crystallin Gene Expression. <i>Journal of Biological Chemistry</i> , 1999, 274, 19973-19978.	3.4	28
56	Rybp, a polycomb complex-associated protein, is required for mouse eye development. <i>BMC Developmental Biology</i> , 2007, 7, 39.	2.1	28
57	Unfolded protein response-associated stabilization of p27(Cdkn1b) interferes with lens fiber cell denucleation, leading to cataract. <i>FASEB Journal</i> , 2016, 30, 1087-1095.	0.5	28
58	Lens-Specific Expression of a Chicken $\alpha$ 3/A1-Crystallin Promoter Fragment in Transgenic Mice. <i>Biochemical and Biophysical Research Communications</i> , 1996, 221, 559-564.	2.1	27
59	Pax6 associates with H3K4-specific histone methyltransferases Mll1, Mll2, and Set1a and regulates H3K4 methylation at promoters and enhancers. <i>Epigenetics and Chromatin</i> , 2016, 9, 37.	3.9	25
60	Evolutionary Origins of Pax6 Control of Crystallin Genes. <i>Genome Biology and Evolution</i> , 2017, 9, 2075-2092.	2.5	20
61	Transcriptional burst fraction and size dynamics during lens fiber cell differentiation and detailed insights into the denucleation process. <i>Journal of Biological Chemistry</i> , 2018, 293, 13176-13190.	3.4	18
62	Rinf Regulates Pluripotency Network Genes and Tet Enzymes in Embryonic Stem Cells. <i>Cell Reports</i> , 2019, 28, 1993-2003.e5.	6.4	18
63	Chromatin features, RNA polymerase II and the comparative expression of lens genes encoding crystallins, transcription factors, and autophagy mediators. <i>Molecular Vision</i> , 2015, 21, 955-73.	1.1	18
64	Transcriptional regulation of mouse alpha A-crystallin gene in a 148kb Cryaa BAC and its derivatives. <i>BMC Developmental Biology</i> , 2008, 8, 88.	2.1	17
65	Gene regulation by PAX6: structural-functional correlations of missense mutants and transcriptional control of Trpm3/miR-204. <i>Molecular Vision</i> , 2014, 20, 270-82.	1.1	16
66	Six3 in a small population of progenitors at E8.5 is required for neuroretinal specification via regulating cell signaling and survival in mice. <i>Developmental Biology</i> , 2017, 428, 164-175.	2.0	15
67	Bidirectional Analysis of Cryba4-Crybb1 Nascent Transcription and Nuclear Accumulation of Crybb3 mRNAs in Lens Fibers. , 2019, 60, 234.		11
68	Crystallin gene expression: Insights from studies of transcriptional bursting. <i>Experimental Eye Research</i> , 2021, 207, 108564.	2.6	11
69	Lens Crystallins. , 2004, , 119-150.		10
70	Identification of Novel Gata3 Distal Enhancers Active in Mouse Embryonic Lens. <i>Developmental Dynamics</i> , 2018, 247, 1186-1198.	1.8	10
71	Transcriptomic analysis and novel insights into lens fibre cell differentiation regulated by Gata3. <i>Open Biology</i> , 2019, 9, 190220.	3.6	9
72	Morphometric analysis of the lens in human aniridia and mouse Small eye. <i>Experimental Eye Research</i> , 2021, 203, 108371.	2.6	7

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73	Promoter-enhancer looping and shadow enhancers of the mouse Î±A-crystallin locus. <i>Biology Open</i> , 2018, 7, .	1.2	6
74	A distal enhancer that directs Otx2 expression in the retinal pigment epithelium and neuroretina. <i>Developmental Dynamics</i> , 2020, 249, 209-221.	1.8	6
75	Interactions between proteins bound to the duck Î²A-globin gene promoter and enhancer detected by the DNaseI footprinting. <i>Gene</i> , 1992, 110, 225-228.	2.2	4
76	Lensâ€preferred activity of chicken Î¹1â€and Î¹2â€crystallin enhancers in transgenic mice and evidence for retinoic acidâ€responsive regulation of the Î¹1â€crystallin gene. <i>Genesis</i> , 1997, 20, 258-266.	2.1	3
77	Focus on Molecules: Brg1: A range of functions during eye development. <i>Experimental Eye Research</i> , 2012, 103, 117-118.	2.6	1
78	Lens Differentiation from Embryonic Stem (ES) and Induced Pluripotent Stem (iPS) Cells. , 2013, , 57-73.		0
79	Lens-Specific Transcription Factors and Their Roles in Diagnosis and Treatment of Human Congenital Cataract. , 2014, , 105-130.		0