

BÄrbel Rohrer

List of Publications by Year in descending order

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110
papers

12,037
citations

126907

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114
all docs

114
docs citations

114
times ranked

23407
citing authors

#	ARTICLE	IF	CITATIONS
1	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). <i>Autophagy</i> , 2016, 12, 1-222.	9.1	4,701
2	Guidelines for the use and interpretation of assays for monitoring autophagy. <i>Autophagy</i> , 2012, 8, 445-544.	9.1	3,122
3	Downregulation of Cone-Specific Gene Expression and Degeneration of Cone Photoreceptors in the <i>Rpe65</i> ^{-/-} Mouse at Early Ages. , 2005, 46, 1473.		193
4	Oxidative Stress Renders Retinal Pigment Epithelial Cells Susceptible to Complement-mediated Injury. <i>Journal of Biological Chemistry</i> , 2009, 284, 16939-16947.	3.4	157
5	Apoptosis and Autophagy in Photoreceptors Exposed to Oxidative Stress. <i>Autophagy</i> , 2007, 3, 433-441.	9.1	156
6	Multiple, parallel cellular suicide mechanisms participate in photoreceptor cell death. <i>Experimental Eye Research</i> , 2006, 83, 380-389.	2.6	154
7	A Targeted Inhibitor of the Alternative Complement Pathway Reduces Angiogenesis in a Mouse Model of Age-Related Macular Degeneration. , 2009, 50, 3056.		147
8	Structure-function analysis of rods and cones in juvenile, adult, and aged C57BL/6 and Balb/c mice. <i>Visual Neuroscience</i> , 2003, 20, 211-220.	1.0	141
9	Calcium-induced Calpain Mediates Apoptosis via Caspase-3 in a Mouse Photoreceptor Cell Line. <i>Journal of Biological Chemistry</i> , 2004, 279, 35564-35572.	3.4	138
10	Role of Neurotrophin Receptor TrkB in the Maturation of Rod Photoreceptors and Establishment of Synaptic Transmission to the Inner Retina. <i>Journal of Neuroscience</i> , 1999, 19, 8919-8930.	3.6	131
11	Cone Opsin Mislocalization in <i>Rpe65</i> ^{-/-} Mice: A Defect That Can Be Corrected by 11-cisRetinal. , 2005, 46, 3876.		128
12	Smoke Exposure Causes Endoplasmic Reticulum Stress and Lipid Accumulation in Retinal Pigment Epithelium through Oxidative Stress and Complement Activation. <i>Journal of Biological Chemistry</i> , 2014, 289, 14534-14546.	3.4	126
13	Isorhodopsin rather than rhodopsin mediates rod function in RPE65 knock-out mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 13662-13667.	7.1	123
14	Quantitative analysis of mitochondrial morphology and membrane potential in living cells using high-content imaging, machine learning, and morphological binning. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2015, 1853, 348-360.	4.1	120
15	Trafficking of Membrane-Associated Proteins to Cone Photoreceptor Outer Segments Requires the Chromophore 11-cis-Retinal. <i>Journal of Neuroscience</i> , 2008, 28, 4008-4014.	3.6	97
16	<i>Rpe65</i> ^{-/-} and <i>Lrat</i> ^{-/-} Mice: Comparable Models of Leber Congenital Amaurosis. , 2008, 49, 2384.		86
17	Eliminating Complement Factor D Reduces Photoreceptor Susceptibility to Light-Induced Damage. , 2007, 48, 5282.		84
18	The Role of the Immune Response in Age-Related Macular Degeneration. <i>International Journal of Inflammation</i> , 2013, 2013, 1-10.	1.5	82

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19	Detection of complement activation using monoclonal antibodies against C3d. <i>Journal of Clinical Investigation</i> , 2013, 123, 2218-2230.	8.2	78
20	11-cis-Retinal Reduces Constitutive Opsin Phosphorylation and Improves Quantum Catch in Retinoid-deficient Mouse Rod Photoreceptors. <i>Journal of Biological Chemistry</i> , 2002, 277, 40491-40498.	3.4	75
21	Multidestructive Pathways Triggered in Photoreceptor Cell Death of the RD Mouse as Determined through Gene Expression Profiling. <i>Journal of Biological Chemistry</i> , 2004, 279, 41903-41910.	3.4	70
22	Correlation of Regenerable Opsin with Rod ERG Signal in Rpe65 ^{-/-} Mice during Development and Aging. , 2003, 44, 310.		62
23	Sublytic Membrane-Attack-Complex (MAC) Activation Alters Regulated Rather than Constitutive Vascular Endothelial Growth Factor (VEGF) Secretion in Retinal Pigment Epithelium Monolayers. <i>Journal of Biological Chemistry</i> , 2011, 286, 23717-23724.	3.4	62
24	Connecting the innate and adaptive immune responses in mouse choroidal neovascularization via the anaphylatoxin C5a and β 1T-cells. <i>Scientific Reports</i> , 2016, 6, 23794.	3.3	62
25	Extracellular vesicle-mediated long-range communication in stressed retinal pigment epithelial cell monolayers. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2018, 1864, 2610-2622.	3.8	61
26	Sustained Elevation of Intracellular cGMP Causes Oxidative Stress Triggering Calpain-Mediated Apoptosis in Photoreceptor Degeneration. <i>Current Eye Research</i> , 2007, 32, 259-269.	1.5	60
27	Gene Therapy Rescues Cone Structure and Function in the 3-Month-Old <i>rd12</i> Mouse: A Model for Midcourse RPE65 Leber Congenital Amaurosis. , 2011, 52, 7.		58
28	The alternative pathway is required, but not alone sufficient, for retinal pathology in mouse laser-induced choroidal neovascularization. <i>Molecular Immunology</i> , 2011, 48, e1-e8.	2.2	57
29	Oxidative Stress Sensitizes Retinal Pigmented Epithelial (RPE) Cells to Complement-mediated Injury in a Natural Antibody-, Lectin Pathway-, and Phospholipid Epitope-dependent Manner. <i>Journal of Biological Chemistry</i> , 2013, 288, 12753-12765.	3.4	55
30	A Mechanistic Review of Cigarette Smoke and Age-Related Macular Degeneration. <i>Advances in Experimental Medicine and Biology</i> , 2014, 801, 301-307.	1.6	55
31	Th17 cells are refractory to senescence and retain robust antitumor activity after long-term ex vivo expansion. <i>JCI Insight</i> , 2017, 2, e90772.	5.0	54
32	Matrix Metalloproteinase Activity Creates Pro-Angiogenic Environment in Primary Human Retinal Pigment Epithelial Cells Exposed to Complement. , 2012, 53, 1953.		50
33	Reduced Metabolic Capacity in Aged Primary Retinal Pigment Epithelium (RPE) is Correlated with Increased Susceptibility to Oxidative Stress. <i>Advances in Experimental Medicine and Biology</i> , 2016, 854, 793-798.	1.6	50
34	Neurotrophin Receptor TrkB Activation Is Not Required for the Postnatal Survival of Retinal Ganglion Cells in Vivo. <i>Experimental Neurology</i> , 2001, 172, 81-91.	4.1	49
35	Interrelation Between Oxidative Stress and Complement Activation in Models of Age-Related Macular Degeneration. <i>Advances in Experimental Medicine and Biology</i> , 2016, 854, 87-93.	1.6	49
36	CR2-Mediated Targeting of Complement Inhibitors: Bench-to-Bedside Using a Novel Strategy for Site-Specific Complement Modulation. <i>Advances in Experimental Medicine and Biology</i> , 2013, 735, 137-154.	1.6	49

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37	Alternative Complement Pathway Deficiency Ameliorates Chronic Smoke-Induced Functional and Morphological Ocular Injury. <i>PLoS ONE</i> , 2013, 8, e67894.	2.5	49
38	Targeting the tight junction protein, zonula occludens-1, with the connexin43 mimetic peptide, Î±CT1, reduces VEGF-dependent RPE pathophysiology. <i>Journal of Molecular Medicine</i> , 2017, 95, 535-552.	3.9	46
39	Differential Effects of Rapamycin on Rods and Cones During Light-Induced Stress in Albino Mice. , 2011, 52, 2967.		43
40	Systemic Human CR2-Targeted Complement Alternative Pathway Inhibitor Ameliorates Mouse Laser-Induced Choroidal Neovascularization. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 2012, 28, 402-409.	1.4	41
41	The exocyst is required for photoreceptor ciliogenesis and retinal development. <i>Journal of Biological Chemistry</i> , 2017, 292, 14814-14826.	3.4	40
42	Early alterations in mitochondrial reserve capacity; a means to predict subsequent photoreceptor cell death. <i>Journal of Bioenergetics and Biomembranes</i> , 2013, 45, 101-109.	2.3	38
43	Autophagy is One of the Multiple Mechanisms Active in Photoreceptor Degeneration. <i>Autophagy</i> , 2007, 3, 65-66.	9.1	35
44	Local Production of the Alternative Pathway Component Factor B Is Sufficient to Promote Laser-Induced Choroidal Neovascularization. , 2015, 56, 1850.		33
45	Delivery of CR2-fH Using AAV Vector Therapy as Treatment Strategy in the Mouse Model of Choroidal Neovascularization. <i>Molecular Therapy - Methods and Clinical Development</i> , 2018, 9, 1-11.	4.1	29
46	A Targeted Inhibitor of the Complement Alternative Pathway Reduces RPE Injury and Angiogenesis in Models of Age-Related Macular Degeneration. <i>Advances in Experimental Medicine and Biology</i> , 2010, 703, 137-149.	1.6	27
47	The Retinol Binding Protein Receptor 2 (Rbpr2) is required for Photoreceptor Outer Segment Morphogenesis and Visual Function in Zebrafish. <i>Scientific Reports</i> , 2017, 7, 16207.	3.3	27
48	Mechanisms of extracellular vesicle uptake in stressed retinal pigment epithelial cell monolayers. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2020, 1866, 165608.	3.8	27
49	Cone Outer Segment Morphology and Cone Function in the Rpe65 ^{-/-} Nrl ^{-/-} Mouse Retina Are Amenable to Retinoid Replacement. , 2009, 50, 4858.		26
50	Bystander effects elicited by single-cell photo-oxidative blue-light stimulation in retinal pigment epithelium cell networks. <i>Cell Death Discovery</i> , 2017, 3, 16071.	4.7	26
51	Paradoxical Role of BDNF: BDNF ⁺ Retinas Are Protected against Light Damage-Mediated Stress. , 2007, 48, 2877.		25
52	Anaphylatoxins Activate Ca ²⁺ , Akt/PI3-Kinase, and FOXO1/FoxP3 in the Retinal Pigment Epithelium. <i>Frontiers in Immunology</i> , 2017, 8, 703.	4.8	25
53	Long-term ERG analysis in the partially light-damaged mouse retina reveals regressive and compensatory changes. <i>Visual Neuroscience</i> , 2006, 23, 91-97.	1.0	24
54	A Targeted Inhibitor of the Alternative Complement Pathway Accelerates Recovery From Smoke-Induced Ocular Injury. , 2016, 57, 1728.		24

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55	Assessing the functional coherence of gene sets with metrics based on the Gene Ontology graph. <i>Bioinformatics</i> , 2010, 26, i79-i87.	4.1	22
56	Deletion of GRK1 Causes Retina Degeneration through a Transducin-Independent Mechanism. <i>Journal of Neuroscience</i> , 2010, 30, 2496-2503.	3.6	22
57	Classical complement activation and acquired immune response pathways are not essential for retinal degeneration in the rd1 mouse. <i>Experimental Eye Research</i> , 2007, 84, 82-91.	2.6	21
58	New therapeutic and diagnostic opportunities for injured tissue-specific targeting of complement inhibitors and imaging modalities. <i>Seminars in Immunology</i> , 2016, 28, 260-267.	5.6	20
59	A Nonparametric Approach to Detect Nonlinear Correlation in Gene Expression. <i>Journal of Computational and Graphical Statistics</i> , 2010, 19, 552-568.	1.7	19
60	Complement-Mediated Microglial Phagocytosis and Pathological Changes in the Development and Degeneration of the Visual System. <i>Frontiers in Immunology</i> , 2020, 11, 566892.	4.8	19
61	Mitochondrial C3a Receptor Activation in Oxidatively Stressed Epithelial Cells Reduces Mitochondrial Respiration and Metabolism. <i>Frontiers in Immunology</i> , 2021, 12, 628062.	4.8	19
62	Functionally intact glutamate-mediated signaling in bipolar cells of the TRKB knockout mouse retina. <i>Visual Neuroscience</i> , 2004, 21, 703-713.	1.0	18
63	A comparative analysis of C57BL/6J and 6N substrains; chemokine/cytokine expression and susceptibility to laser-induced choroidal neovascularization. <i>Experimental Eye Research</i> , 2014, 129, 18-23.	2.6	18
64	Retarded outer segment development in TrkB knockout mouse retina organ culture. <i>Molecular Vision</i> , 2003, 9, 18-23.	1.1	18
65	Inhibition of the alternative complement pathway accelerates repair processes in the murine model of choroidal neovascularization. <i>Molecular Immunology</i> , 2019, 108, 8-12.	2.2	17
66	Calpain inhibition reduces structural and functional impairment of retinal ganglion cells in experimental optic neuritis. <i>Journal of Neurochemistry</i> , 2016, 139, 270-284.	3.9	15
67	Large-scale phenotypic drug screen identifies neuroprotectants in zebrafish and mouse models of retinitis pigmentosa. <i>ELife</i> , 2021, 10, .	6.0	15
68	Activation of endogenously expressed ion channels by active complement in the retinal pigment epithelium. <i>Pflugers Archiv European Journal of Physiology</i> , 2015, 467, 2179-2191.	2.8	14
69	Identification of candidate genes for human retinal degeneration loci using differentially expressed genes from mouse photoreceptor dystrophy models. <i>Molecular Vision</i> , 2008, 14, 1639-49.	1.1	14
70	Photoreceptor structure and function is maintained in organotypic cultures of mouse retinas. <i>Molecular Vision</i> , 2010, 16, 1178-85.	1.1	14
71	Association of age-related macular degeneration with complement activation products, smoking, and single nucleotide polymorphisms in South Carolinians of European and African descent. <i>Molecular Vision</i> , 2019, 25, 79-92.	1.1	14
72	Recombinant Manganese Peroxidase Reduces A2E Burden in Age-Related and Stargardt's Macular Degeneration Models. <i>Rejuvenation Research</i> , 2018, 21, 560-571.	1.8	13

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73	Increased Nonexudative Age-Related Macular Degeneration Diagnosis Among Medicare Beneficiaries With Rheumatoid Arthritis. , 2019, 60, 3520.		13
74	Sublytic Membrane-Attack-Complex Activation and VEGF Secretion in Retinal Pigment Epithelial Cells. Advances in Experimental Medicine and Biology, 2012, 723, 23-30.	1.6	13
75	Gene dosage effect of the TrkB receptor on rod physiology and biochemistry in juvenile mouse retina. Molecular Vision, 2001, 7, 288-96.	1.1	12
76	Encapsulated Cell Technology-Based Delivery of a Complement Inhibitor Reduces Choroidal Neovascularization in a Mouse Model. Translational Vision Science and Technology, 2018, 7, 3.	2.2	11
77	Immunization Against Oxidized Elastin Exacerbates Structural and Functional Damage in Mouse Model of Smoke-Induced Ocular Injury. , 2020, 61, 45.		11
78	Systemic Inflammation by Collagen-Induced Arthritis Affects the Progression of Age-Related Macular Degeneration Differently in Two Mouse Models of the Disease. , 2020, 61, 11.		10
79	9-cis Retinal Increased in Retina of RPE65 Knockout Mice with Decrease in Coat Pigmentation. Photochemistry and Photobiology, 2006, 82, 1461.	2.5	9
80	Noninvasive Detection of Complement Activation Through Radiologic Imaging. Advances in Experimental Medicine and Biology, 2013, 735, 271-282.	1.6	8
81	Anaphylatoxin Signaling in Retinal Pigment and Choroidal Endothelial Cells: Characteristics and Relevance to Age-Related Macular Degeneration. Advances in Experimental Medicine and Biology, 2018, 1074, 45-51.	1.6	8
82	Subretinal Rather Than Intravitreal Adeno-Associated Virus-Mediated Delivery of a Complement Alternative Pathway Inhibitor Is Effective in a Mouse Model of RPE Damage. , 2021, 62, 11.		8
83	New Insights on Complement Inhibitor CD59 in Mouse Laser-Induced Choroidal Neovascularization: Mislocalization After Injury and Targeted Delivery for Protein Replacement. Journal of Ocular Pharmacology and Therapeutics, 2017, 33, 400-411.	1.4	7
84	An improved method for isolation of mitochondria from cell lines that enables reconstitution of calcium-dependent processes. Analytical Biochemistry, 2019, 577, 52-58.	2.4	7
85	9-cis Retinal Increased in Retina of RPE65 Knockout Mice with Decrease in Coat Pigmentation. Photochemistry and Photobiology, 2006, 82, 1461-1467.	2.5	6
86	J or H mtDNA haplogroups in retinal pigment epithelial cells: Effects on cell physiology, cargo in extracellular vesicles, and differential uptake of such vesicles by naïve recipient cells. Biochimica Et Biophysica Acta - General Subjects, 2021, 1865, 129798.	2.4	6
87	Encapsulated Cell Technology for the Delivery of Biologics to the Mouse Eye. Journal of Visualized Experiments, 2020, , .	0.3	6
88	Rod and Cone Pigment Regeneration in RPE65 ^{-/-} Mice. , 2006, 572, 101-107.		5
89	Prolonged Src Kinase Activation, a Mechanism to Turn Transient, Sublytic Complement Activation into a Sustained Pathological Condition in Retinal Pigment Epithelium Cells. Advances in Experimental Medicine and Biology, 2014, 801, 221-227.	1.6	5
90	Elastin turnover in ocular diseases: A special focus on age-related macular degeneration. Experimental Eye Research, 2022, 222, 109164.	2.6	5

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91	Mechanisms of bystander effects in retinal pigment epithelium cell networks. <i>Cell Death and Disease</i> , 2017, 8, e3061-e3061.	6.3	4
92	Natural immunoglobulin M-based delivery of a complement alternative pathway inhibitor in mouse models of retinal degeneration. <i>Experimental Eye Research</i> , 2021, 207, 108583.	2.6	4
93	Peptide-based immunotherapy against oxidized elastin ameliorates pathology in mouse model of smoke-induced ocular injury. <i>Experimental Eye Research</i> , 2021, 212, 108755.	2.6	4
94	Small Molecules that Protect Mitochondrial Function from Metabolic Stress Decelerate Loss of Photoreceptor Cells in Murine Retinal Degeneration Models. <i>Advances in Experimental Medicine and Biology</i> , 2016, 854, 449-454.	1.6	4
95	Retinal Pre-Conditioning by CD59a Knockout Protects against Light-Induced Photoreceptor Degeneration. <i>PLoS ONE</i> , 2016, 11, e0166348.	2.5	4
96	Newly Identified Chemicals Preserve Mitochondrial Capacity and Decelerate Loss of Photoreceptor Cells in Murine Retinal Degeneration Models. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 2021, 37, 367-378.	1.4	3
97	Does Constitutive Phosphorylation Protect Against Photoreceptor Degeneration in Rpe65 ^{-/-} Mice?. <i>Advances in Experimental Medicine and Biology</i> , 2003, 533, 221-227.	1.6	3
98	Calpain inhibition as a possible new therapeutic target in multiple sclerosis. <i>AIMS Molecular Science</i> , 2017, 4, 446-462.	0.5	3
99	Explant cultures of Rpe65 ^{-/-} mouse retina: a model to investigate cone opsin trafficking. <i>Molecular Vision</i> , 2013, 19, 1149-57.	1.1	3
100	Revealing functionally coherent subsets using a spectral clustering and an information integration approach. <i>BMC Systems Biology</i> , 2012, 6, S7.	3.0	2
101	Conditional Loss of the Exocyst Component Exoc5 in Retinal Pigment Epithelium (RPE) Results in RPE Dysfunction, Photoreceptor Cell Degeneration, and Decreased Visual Function. <i>International Journal of Molecular Sciences</i> , 2021, 22, 5083.	4.1	2
102	Complement Pathways and Oxidative Stress in Models of Age-Related Macular Degeneration. , 2012, , 47-63.		2
103	Candidate genes for chromosomes 6 and 10 quantitative trait loci for age-related retinal degeneration in mice. <i>Molecular Vision</i> , 2010, 16, 1004-18.	1.1	2
104	The use of Matrigel combined with encapsulated cell technology to deliver a complement inhibitor in a mouse model of choroidal neovascularization. <i>Molecular Vision</i> , 2020, 26, 370-377.	1.1	2
105	Dabigatran and Wet AMD, Results From Retinal Pigment Epithelial Cell Monolayers, the Mouse Model of Choroidal Neovascularization, and Patients From the Medicare Data Base. <i>Frontiers in Immunology</i> , 0, 13, .	4.8	2
106	The Complement Regulatory Protein CD59: Insights into Attenuation of Choroidal Neovascularization. <i>Advances in Experimental Medicine and Biology</i> , 2014, 801, 435-440.	1.6	1
107	Sex Related Differences in Retinal Pigment Epithelium and Retinal Disease. , 2020, , 185-201.		1
108	SAHA is neuroprotective in in vitro and in situ models of retinitis pigmentosa. <i>Molecular Vision</i> , 2021, 27, 151-160.	1.1	1

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109	Alginate Microcapsule Technology and Impacts on Cell Therapy Development. <i>Microscopy and Microanalysis</i> , 2017, 23, 1214-1215.	0.4	0
110	Isolation of Mitochondria from Retinal Pigment Epithelial Cell Cultures and an Application of High-Resolution Respirometric Assay (XFe96 Seahorse Assay). <i>Methods in Molecular Biology</i> , 2021, 2277, 423-431.	0.9	0