Theodore G Wensel

List of Publications by Year
in descending order

135 papers	7,512 citations	57758 44 h-index	62596 80 g-index
142 all docs	142 docs citations	142 times ranked	6259 citing authors

#	Article	IF	Citations
1	Subcellular localization of mutant P23H rhodopsin in an RFP fusion knock-in mouse model of retinitis pigmentosa. DMM Disease Models and Mechanisms, 2022, 15, .	2.4	6
2	<scp>LRRTM4</scp> is a member of the transsynaptic complex between rod photoreceptors and bipolar cells. Journal of Comparative Neurology, 2021, 529, 221-233.	1.6	10
3	Structure and dynamics of photoreceptor sensory cilia. Pflugers Archiv European Journal of Physiology, 2021, 473, 1517-1537.	2.8	23
4	Super-resolution microscopy reveals photoreceptor-specific subciliary location and function of ciliopathy-associated protein CEP290. JCI Insight, 2021, 6, .	5.0	17
5	The mGluR6 ligand-binding domain, but not the C-terminal domain, is required for synaptic localization in retinal ON-bipolar cells. Journal of Biological Chemistry, 2021, 297, 101418.	3.4	5
6	Recurrent high-impact mutations at cognate structural positions in class A G protein-coupled receptors expressed in tumors. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	8
7	Loss of Class III Phosphoinositide 3-Kinase Vps34 Results in Cone Degeneration. Biology, 2020, 9, 384.	2.8	8
8	MTORâ€initiated metabolic switch and degeneration in the retinal pigment epithelium. FASEB Journal, 2020, 34, 12502-12520.	0.5	27
9	Phosphoinositides in Retinal Function and Disease. Cells, 2020, 9, 866.	4.1	20
10	Phototransduction in Vertebrate Rods and Cones. , 2020, , 261-274.		0
11	Critical Role for Phosphatidylinositol-3 Kinase Vps34/PIK3C3 in ON-Bipolar Cells. , 2019, 60, 2861.		18
12	Defining the layers of a sensory cilium with STORM and cryoelectron nanoscopy. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23562-23572.	7.1	31
13	Single-Atom Fluorescence Switch: A General Approach toward Visible-Light-Activated Dyes for Biological Imaging. Journal of the American Chemical Society, 2019, 141, 14699-14706.	13.7	98
14	Residues and residue pairs of evolutionary importance differentially direct signaling bias of D2 dopamine receptors. Journal of Biological Chemistry, 2019, 294, 19279-19291.	3.4	3
15	Structures of TRPV2 in distinct conformations provide insight into role of the pore turret. Nature Structural and Molecular Biology, 2019, 26, 40-49.	8.2	47
16	Differential epitope masking reveals synapse-specific complexes of TRPM1. Visual Neuroscience, 2018, 35, E001.	1.0	6
17	Phagocytosed photoreceptor outer segments activate mTORC1 in the retinal pigment epithelium. Science Signaling, 2018, 11, .	3.6	29
18	SPATA7 maintains a novel photoreceptor-specific zone in the distal connecting cilium. Journal of Cell Biology, 2018, 217, 2851-2865.	5.2	46

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19	A Large Endoplasmic Reticulum-Resident Pool of TRPM1 in Retinal ON-Bipolar Cells. ENeuro, 2018, 5, ENEURO.0143-18.2018.	1.9	16
20	Î²2-Adrenergic receptor activation mobilizes intracellular calcium via a non-canonical cAMP-independent signaling pathway. Journal of Biological Chemistry, 2017, 292, 9967-9974.	3.4	31
21	The ocular toxicity and pharmacokinetics of simvastatin following intravitreal injection in mice. International Journal of Ophthalmology, 2017, 10, 1361-1369.	1.1	4
22	Structural and molecular bases of rod photoreceptor morphogenesis and disease. Progress in Retinal and Eye Research, 2016, 55, 32-51.	15.5	45
23	Phosphatidylinositol-3-phosphate is light-regulated and essential for survival in retinal rods. Scientific Reports, 2016, 6, 26978.	3.3	34
24	Structural Basis of TRPV2 Channel Gating Investigated with cryo-EM. Biophysical Journal, 2016, 110, 25a.	0.5	0
25	Intramolecular allosteric communication in dopamine D2 receptor revealed by evolutionary amino acid covariation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3539-3544.	7.1	38
26	Integrative subcellular proteomic analysis allows accurate prediction of human disease-causing genes. Genome Research, 2016, 26, 660-669.	5.5	22
27	Nonsense mutations in the rhodopsin gene that give rise to mild phenotypes trigger mRNA degradation in human cells by nonsense-mediated decay. Experimental Eye Research, 2016, 145, 444-449.	2.6	14
28	Domain Organization and Conformational Plasticity of the G Protein Effector, PDE6. Journal of Biological Chemistry, 2015, 290, 12833-12843.	3.4	18
29	Determinants of Endogenous Ligand Specificity Divergence among Metabotropic Glutamate Receptors. Journal of Biological Chemistry, 2015, 290, 2870-2878.	3.4	20
30	Three-Dimensional Architecture of Murine Rod Cilium Revealed by Cryo-EM. Methods in Molecular Biology, 2015, 1271, 267-292.	0.9	11
31	The Retromer Complex Is Required for Rhodopsin Recycling and Its Loss Leads to Photoreceptor Degeneration. PLoS Biology, 2014, 12, e1001847.	5.6	75
32	Oligomeric State of Purified Transient Receptor Potential Melastatin-1 (TRPM1), a Protein Essential for Dim Light Vision. Journal of Biological Chemistry, 2014, 289, 27019-27033.	3.4	20
33	Selectivity and Evolutionary Divergence of Metabotropic Glutamate Receptors for Endogenous Ligands and G Proteins Coupled to Phospholipase C or TRP Channels. Journal of Biological Chemistry, 2014, 289, 29961-29974.	3.4	14
34	Abrupt Onset of Mutations in a Developmentally Regulated Gene during Terminal Differentiation of Post-Mitotic Photoreceptor Neurons in Mice. PLoS ONE, 2014, 9, e108135.	2.5	11
35	Timing Is Everything: GTPase Regulation in Phototransduction. , 2013, 54, 7725.		51
36	Molecular Biology of Vision. , 2012, , 889-903.		2

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37	Three-Dimensional Architecture of the Rod Sensory Cilium and Its Disruption in Retinal Neurodegeneration. Cell, 2012, 151, 1029-1041.	28.9	142
38	Rhodopsin Gene Expression Determines Rod Outer Segment Size and Rod Cell Resistance to a Dominant-Negative Neurodegeneration Mutant. PLoS ONE, 2012, 7, e49889.	2.5	49
39	Electron Cryo-Tomography of Cilia-Associated Structures of Rod Photoreceptors. Biophysical Journal, 2011, 100, 338a.	0.5	0
40	TRP channel gene expression in the mouse retina. Vision Research, 2011, 51, 2440-2452.	1.4	83
41	Efficient mutagenesis of the rhodopsin gene in rod photoreceptor neurons in mice. Nucleic Acids Research, 2011, 39, 5955-5966.	14.5	27
42	Mislocalization and Degradation of Human P23H-Rhodopsin-GFP in a Knockin Mouse Model of Retinitis Pigmentosa. , 2011, 52, 9728.		52
43	Functional and Structural Studies of TRP Channels Heterologously Expressed in Budding Yeast. Advances in Experimental Medicine and Biology, 2011, 704, 25-40.	1.6	15
44	Biochemical Cascade of Phototransduction. , 2011, , 394-410.		9
45	Distribution of RGS9â€2 in neurons of the mouse striatum. Journal of Neurochemistry, 2010, 112, 651-661.	3.9	15
46	Topical Mydriatics Affect Light-Evoked Retinal Responses in Anesthetized Mice. , 2010, 51, 567.		13
47	Mutations of the Opsin Gene (Y102H and I307N) Lead to Light-induced Degeneration of Photoreceptors and Constitutive Activation of Phototransduction in Mice. Journal of Biological Chemistry, 2010, 285, 14521-14533.	3.4	36
48	Evolution-guided discovery and recoding of allosteric pathway specificity determinants in psychoactive bioamine receptors. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 7787-7792.	7.1	86
49	Evaluating Retinal Toxicity of Intravitreal Caspofungin in the Mouse Eye. , 2010, 51, 5796.		8
50	R9AP stabilizes RGS11-GÎ²5 and accelerates the early light response of ON-bipolar cells. Visual Neuroscience, 2010, 27, 9-17.	1.0	24
51	Two R7 Regulator of G-Protein Signaling Proteins Shape Retinal Bipolar Cell Signaling. Journal of Neuroscience, 2009, 29, 7753-7765.	3.6	43
52	Hot on the Trail of TRP Channel Structure. Journal of General Physiology, 2009, 133, 239-244.	1.9	33
53	Multiphoton adaptation of a commercial low-cost confocal microscope for live tissue imaging. Journal of Biomedical Optics, 2009, 14, 034048.	2.6	14
54	New mouse models for recessive retinitis pigmentosa caused by mutations in the Pde6a gene. Human Molecular Genetics, 2009, 18, 178-192.	2.9	61

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55	A Synaptic Vesicle-Associated Ca2+ Channel Promotes Endocytosis and Couples Exocytosis to Endocytosis. Cell, 2009, 138, 947-960.	28.9	138
56	Chronic cold exposure increases RGS7 expression and decreases Î±₂â€autoreceptorâ€mediated inhibition of noradrenergic locus coeruleus neurons. European Journal of Neuroscience, 2008, 27, 2433-2443.	2.6	38
57	Signal transducing membrane complexes of photoreceptor outer segments. Vision Research, 2008, 48, 2052-2061.	1.4	106
58	Regulation of Photoresponses by Phosphorylation. , 2008, , 125-140.		1
59	Safety and Pharmokinetics of Triamcinolone Hexacetonide in Rabbit Eyes. Journal of Ocular Pharmacology and Therapeutics, 2008, 24, 197-205.	1.4	1
60	Targeted Generation of DNA Strand Breaks Using Pyrene-Conjugated Triplex-Forming Oligonucleotides. Biochemistry, 2008, 47, 6279-6288.	2.5	14
61	Activation-dependent Hindrance of Photoreceptor G Protein Diffusion by Lipid Microdomains. Journal of Biological Chemistry, 2008, 283, 30015-30024.	3.4	48
62	Structure of TRPV1 channel revealed by electron cryomicroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7451-7455.	7.1	194
63	Subcellular compartmentalization of two calcium binding proteins, calretinin and calbindin-28 kDa, in ganglion and amacrine cells of the rat retina. Molecular Vision, 2008, 14, 1600-13.	1.1	37
64	Localization and differential interaction of R7 RGS proteins with their membrane anchors R7BP and R9AP in neurons of vertebrate retina. Molecular and Cellular Neurosciences, 2007, 35, 311-319.	2.2	40
65	Oral Curcumin Mitigates the Clinical and Neuropathologic Phenotype of the Trembler-J Mouse: A Potential Therapy for Inherited Neuropathy. American Journal of Human Genetics, 2007, 81, 438-453.	6.2	122
66	Neural Reprogramming in Retinal Degeneration. , 2007, 48, 3364.		284
67	GÎ²5â€“RGS complexes coâ€localize with mGluR6 in retinal ONâ€bipolar cells. European Journal of Neuroscience, 2007, 26, 2899-2905.	2.6	62
68	Clearance of Intravitreal Moxifloxacin. , 2006, 47, 317.		34
69	Nicotinic Acetylcholine Receptor Channel Electrostatics Determined by Diffusion-Enhanced Luminescence Energy Transfer. Biophysical Journal, 2006, 91, 1315-1324.	0.5	12
70	Electrostatic Steering at Acetylcholine Binding Sites. Biophysical Journal, 2006, 91, 1302-1314.	0.5	24
71	RGS Expression Rate-Limits Recovery of Rod Photoresponses. Neuron, 2006, 51, 409-416.	8.1	244
72	Tokay Gecko Photoreceptors Achieve Rod-Like Physiology with Cone-Like Proteins. Photochemistry and Photobiology, 2006, 82, 1452-1460.	2.5	21

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73	Defective development of photoreceptor membranes in a mouse model of recessive retinal degeneration. Vision Research, 2006, 46, 4510-4518.	1.4	16
74	Tokay Gecko Photoreceptors Achieve Rod-Like Physiology with Cone-Like Proteinsâ€. Photochemistry and Photobiology, 2006, 82, 1452.	2.5	29
75	Purification, Reconstitution on Lipid Vesicles, and Assays of PDE6 and Its Activator G Protein, Transducin. , 2005, 307, 289-314.		10
76	ABCA4 mutations causing mislocalization are found frequently in patients with severe retinal dystrophies. Human Molecular Genetics, 2005, 14, 2769-2778.	2.9	91
77	Rhodopsinâ€"EGFP knock-ins for imaging quantal gene alterations. Vision Research, 2005, 45, 3445-3453.	1.4	11
78	Characterization of R9AP, a Membrane Anchor for the Photoreceptor GTPase-Accelerating Protein, RGS9-1. Methods in Enzymology, 2004, 390, 178-196.	1.0	9
79	Enhancement of Phototransduction G Protein-Effector Interactions by Phosphoinositides. Journal of Biological Chemistry, 2004, 279, 8986-8990.	3.4	25
80	Knock-in human rhodopsin-GFP fusions as mouse models for human disease and targets for gene therapy. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 9109-9114.	7.1	85
81	Evolutionary Trace of G Protein-coupled Receptors Reveals Clusters of Residues That Determine Global and Class-specific Functions. Journal of Biological Chemistry, 2004, 279, 8126-8132.	3.4	179
82	How a G Protein Binds a Membrane. Journal of Biological Chemistry, 2004, 279, 33937-33945.	3.4	35
83	The Nature of Dominant Mutations of Rhodopsin and Implications for Gene Therapy. Molecular Neurobiology, 2003, 28, 149-158.	4.0	78
84	From Molecules to Behavior. Neuron, 2003, 38, 853-856.	8.1	11
85	Instability of GGL domain-containing RGS proteins in mice lacking the G protein Â-subunit GÂ5. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 6604-6609.	7.1	193
86	Targeted expression of the dominant-negative FGFR4a in the eye using<i>Xrx1A</i>regulatory sequences interferes with normal retinal development. Development (Cambridge), 2003, 130, 4177-4186.	2.5	27
87	Identification of Protein Kinase C Isozymes Responsible for the Phosphorylation of Photoreceptor-specific RGS9-1 at Ser475. Journal of Biological Chemistry, 2003, 278, 8316-8325.	3.4	26
88	Activation of RGS9-1GTPase Acceleration by Its Membrane Anchor, R9AP. Journal of Biological Chemistry, 2003, 278, 14550-14554.	3.4	69
89	GTPase Regulators and Photoresponses in Cones of the Eastern Chipmunk. Journal of Neuroscience, 2003, 23, 1287-1297.	3.6	91
90	Acceleration of Key Reactions as a Strategy to Elucidate the Rate-Limiting Chemistry Underlying Phototransduction Inactivation. , 2003, 44, 1016.		8

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91	R9AP, a membrane anchor for the photoreceptor GTPase accelerating protein, RGS9-1. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 9755-9760.	7.1	164
92	RGS Function in Visual Signal Transduction. Methods in Enzymology, 2002, 344, 724-740.	1.0	5
93	Evolution of the Regulators of G-Protein Signaling Multigene Family in Mouse and Human. Genomics, 2002, 79, 177-185.	2.9	91
94	Characterization of retinal guanylate cyclase-activating protein 3 (GCAP3) from zebrafish to man. European Journal of Neuroscience, 2002, 15, 63-78.	2.6	95
95	Rgs9-1 Phosphorylation And Ca2+. Advances in Experimental Medicine and Biology, 2002, 514, 125-129.	1.6	7
96	Cosegregation and functional analysis of mutant ABCR (ABCA4) alleles in families that manifest both Stargardt disease and age-related macular degeneration. Human Molecular Genetics, 2001, 10, 2671-2678.	2.9	110
97	Prediction and confirmation of a site critical for effector regulation of RGS domain activity. Nature Structural Biology, 2001, 8, 234-237.	9.7	125
98	Structural determinants for regulation of phosphodiesterase by a G protein at 2.0 Ã…. Nature, 2001, 409, 1071-1077.	27.8	256
99	Dependence of RGS9â€“1 Membrane Attachment on Its C-terminal Tail. Journal of Biological Chemistry, 2001, 276, 48961-48966.	3.4	9
100	Phosphorylation of RGS9-1 by an Endogenous Protein Kinase in Rod Outer Segments. Journal of Biological Chemistry, 2001, 276, 22287-22295.	3.4	40
101	[35] Enzymology of GTPase acceleration in phototransduction. Methods in Enzymology, 2000, 315, 524-538.	1.0	31
102	RGS proteins: Lessons from the RGS9 subfamily. Progress in Molecular Biology and Translational Science, 2000, 65, 341-359.	1.9	43
103	Slowed recovery of rod photoresponse in mice lacking the GTPase accelerating protein RGS9-1. Nature, 2000, 403, 557-560.	27.8	452
104	Do Phosphatidylinositides Modulate Vertebrate Phototransduction?. Journal of Neuroscience, 2000, 20, 2792-2799.	3.6	83
105	Multiple Zinc Binding Sites in Retinal Rod cGMP Phosphodiesterase, PDE6Î±Î². Journal of Biological Chemistry, 2000, 275, 20572-20577.	3.4	47
106	Enhancement of Phototransduction Protein Interactions by Lipid Surfaces. Journal of Biological Chemistry, 2000, 275, 3535-3542.	3.4	45
107	Co-expression of GÎ²5 Enhances the Function of Two GÎ³ Subunit-like Domain-containing Regulators of G Protein Signaling Proteins. Journal of Biological Chemistry, 2000, 275, 3397-3402.	3.4	79
108	Modules in the Photoreceptor RGS9-1Â·GÎ²5L GTPase-accelerating Protein Complex Control Effector Coupling, GTPase Acceleration, Protein Folding, and Stability. Journal of Biological Chemistry, 2000, 275, 37093-37100.	3.4	86

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109	Psoralen Photo-Cross-Linking by Triplex-Forming Oligonucleotides at Multiple Sites in the Human Rhodopsin Geneâ€. Biochemistry, 1999, 38, 12850-12859.	2.5	19
110	Formation of Helical Protein Assemblies of IgG and Transducin on Varied Lipid Tubules. Journal of Structural Biology, 1999, 128, 119-130.	2.8	21
111	RGS9, a GTPase Accelerator for Phototransduction. Neuron, 1998, 20, 95-102.	8.1	355
112	Triplex Targets in the Human Rhodopsin Geneâ€. Biochemistry, 1998, 37, 11315-11322.	2.5	27
113	High expression levels in cones of RGS9, the predominant GTPase accelerating protein of rods. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 5351-5356.	7.1	159
114	High-Efficiency Triple-Helix-Mediated Photo-Cross-Linking at a Targeted Site within a Selectable Mammalian Geneâ€. Biochemistry, 1996, 35, 10712-10719.	2.5	45
115	High Affinity Interactions of GTPÎ³S with the Heterotrimeric G Protein, Transducin. Journal of Biological Chemistry, 1996, 271, 12919-12924.	3.4	30
116	Biosynthesis of the Unsaturated 14-Carbon Fatty Acids Found on the N Termini of Photoreceptor-specific Proteins. Journal of Biological Chemistry, 1996, 271, 5007-5016.	3.4	30
117	Low Affinity Interactions of GDPÎ²S and Ribose- or Phosphoryl-substituted GTP Analogues with the Heterotrimeric G Protein, Transducin. Journal of Biological Chemistry, 1996, 271, 12925-12931.	3.4	11
118	More answers about cGMP-gated channels pose more questions. Behavioral and Brain Sciences, 1995, 18, 492-493.	0.7	0
119	Intensely Luminescent Immunoreactive Conjugates of Proteins and Dipicolinate-Based Polymeric Tb(III) Chelates. Bioconjugate Chemistry, 1995, 6, 88-92.	3.6	26
120	High-Affinity Triple Helix Formation by Synthetic Oligonucleotides at a Site within a Selectable Mammalian Gene. Biochemistry, 1995, 34, 7243-7251.	2.5	68
121	Luminescence Properties of Terbium(III) Complexes with 4-Substituted Dipicolinic Acid Analogs. Inorganic Chemistry, 1995, 34, 864-869.	4.0	105
122	A novel reagent for labelling macromolecules with intensely luminescent lanthanide complexes. Tetrahedron Letters, 1993, 34, 4141-4144.	1.4	23
123	A GTPase-accelerating factor for transducin, distinct from its effector cGMP phosphodiesterase, in rod outer segment membranes. Neuron, 1993, 11, 939-949.	8.1	207
124	Membrane stimulation of cGMP phosphodiesterase activation by transducin: comparison of phospholipid bilayers to rod outer segment membranes. Biochemistry, 1992, 31, 9502-9512.	2.5	61
125	Nucleotide exchange and cGMP phosphodiesterase activation by pertussis toxin inactivated transducin. Biochemistry, 1991, 30, 11637-11645.	2.5	49
126	G Proteins.Ravi Iyengar , Lutz Birnbaumer. Quarterly Review of Biology, 1991, 66, 333-333.	0.1	0

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127	Activation mechanism of retinal rod cyclic GMP phosphodiesterase probed by fluorescein-labeled inhibitory subunit. Biochemistry, 1990, 29, 2155-2161.	2.5	89
128	Study of biological macromolecules by diffusion-enhanced lanthanide energy transfer. Journal of the Less Common Metals, 1989, 149, 143-160.	0.8	4
129	Nanosecond Motions Of Genetically-Engineered Antibodies: Structural Elements Controlling Segmental Flexibility Defined By Time-Resolved Emission Anisotropy. , 1988, 0909, 108.		0
130	Metabolizable 111in chelate conjugated anti-idiotype monoclonal antibody for radioimmunodetection of lymphoma in mice. European Journal of Nuclear Medicine and Molecular Imaging, 1986, 12, 455-460.	2.1	47
131	Reciprocal control of retinal rod cyclic GMP phosphodiesterase by its Î³ subunit and transducin. Proteins: Structure, Function and Bioinformatics, 1986, 1, 90-99.	2.6	149
132	Diffusion-enhanced lanthanide energy-transfer study of DNA-bound cobalt(III) bleomycins: comparisons of accessibility and electrostatic potential with DNA complexes of ethidium and Acridine Orange. Biochemistry, 1985, 24, 3060-3069.	2.5	28
133	Metal chelates as probes of biological systems. Accounts of Chemical Research, 1984, 17, 202-209.	15.6	186
134	Electrostatic properties of myoglobin probed by diffusion-enhanced energy transfer. Biochemistry, 1983, 22, 6247-6254.	2.5	28
135	Defining the Layers of a Sensory Cilium with STORM and Cryo-Electron Nanoscopy. SSRN Electronic Journal, 0, , .	0.4	2