

Theodore G Wensel

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134
papers

6,412
citations

42
h-index

77
g-index

142
ext. papers

6,980
ext. citations

7.2
avg, IF

5.62
L-index

#	Paper	IF	Citations
134	Slowed recovery of rod photoresponse in mice lacking the GTPase accelerating protein RGS9-1. <i>Nature</i> , 2000 , 403, 557-60	50.4	413
133	RGS9, a GTPase accelerator for phototransduction. <i>Neuron</i> , 1998 , 20, 95-102	13.9	325
132	Neural reprogramming in retinal degeneration. <i>Investigative Ophthalmology and Visual Science</i> , 2007 , 48, 3364-71		237
131	Structural determinants for regulation of phosphodiesterase by a G protein at 2.0 Å. <i>Nature</i> , 2001 , 409, 1071-7	50.4	228
130	RGS expression rate-limits recovery of rod photoresponses. <i>Neuron</i> , 2006 , 51, 409-16	13.9	220
129	A GTPase-accelerating factor for transducin, distinct from its effector cGMP phosphodiesterase, in rod outer segment membranes. <i>Neuron</i> , 1993 , 11, 939-49	13.9	200
128	Instability of GGL domain-containing RGS proteins in mice lacking the G protein beta-subunit Gbeta5. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 6604-9	11.5	172
127	Structure of TRPV1 channel revealed by electron cryomicroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 7451-5	11.5	164
126	Metal chelates as probes of biological systems. <i>Accounts of Chemical Research</i> , 1984 , 17, 202-209	24.3	164
125	Evolutionary trace of G protein-coupled receptors reveals clusters of residues that determine global and class-specific functions. <i>Journal of Biological Chemistry</i> , 2004 , 279, 8126-32	5.4	157
124	High expression levels in cones of RGS9, the predominant GTPase accelerating protein of rods. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998 , 95, 5351-6	11.5	150
123	R9AP, a membrane anchor for the photoreceptor GTPase accelerating protein, RGS9-1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002 , 99, 9755-60	11.5	146
122	Reciprocal control of retinal rod cyclic GMP phosphodiesterase by its gamma subunit and transducin. <i>Proteins: Structure, Function and Bioinformatics</i> , 1986 , 1, 90-9	4.2	129
121	Three-dimensional architecture of the rod sensory cilium and its disruption in retinal neurodegeneration. <i>Cell</i> , 2012 , 151, 1029-41	56.2	122
120	A synaptic vesicle-associated Ca ²⁺ channel promotes endocytosis and couples exocytosis to endocytosis. <i>Cell</i> , 2009 , 138, 947-60	56.2	114
119	Prediction and confirmation of a site critical for effector regulation of RGS domain activity. <i>Nature Structural Biology</i> , 2001 , 8, 234-7		104
118	Oral curcumin mitigates the clinical and neuropathologic phenotype of the Trembler-J mouse: a potential therapy for inherited neuropathy. <i>American Journal of Human Genetics</i> , 2007 , 81, 438-53	11	99

117	Signal transducing membrane complexes of photoreceptor outer segments. <i>Vision Research</i> , 2008 , 48, 2052-61	2.1	96
116	Luminescence Properties of Terbium(III) Complexes with 4-Substituted Dipicolinic Acid Analogs. <i>Inorganic Chemistry</i> , 1995 , 34, 864-869	5.1	95
115	Cosegregation and functional analysis of mutant ABCR (ABCA4) alleles in families that manifest both Stargardt disease and age-related macular degeneration. <i>Human Molecular Genetics</i> , 2001 , 10, 2671-8	5.6	90
114	Characterization of retinal guanylate cyclase-activating protein 3 (GCAP3) from zebrafish to man. <i>European Journal of Neuroscience</i> , 2002 , 15, 63-78	3.5	88
113	GTPase regulators and photoresponses in cones of the eastern chipmunk. <i>Journal of Neuroscience</i> , 2003 , 23, 1287-97	6.6	85
112	Evolution of the regulators of G-protein signaling multigene family in mouse and human. <i>Genomics</i> , 2002 , 79, 177-85	4.3	82
111	Activation mechanism of retinal rod cyclic GMP phosphodiesterase probed by fluorescein-labeled inhibitory subunit. <i>Biochemistry</i> , 1990 , 29, 2155-61	3.2	80
110	Do phosphatidylinositides modulate vertebrate phototransduction?. <i>Journal of Neuroscience</i> , 2000 , 20, 2792-9	6.6	77
109	ABCA4 mutations causing mislocalization are found frequently in patients with severe retinal dystrophies. <i>Human Molecular Genetics</i> , 2005 , 14, 2769-78	5.6	76
108	Modules in the photoreceptor RGS9-1.Gbeta 5L GTPase-accelerating protein complex control effector coupling, GTPase acceleration, protein folding, and stability. <i>Journal of Biological Chemistry</i> , 2000 , 275, 37093-100	5.4	76
107	Co-expression of Gbeta5 enhances the function of two Ggamma subunit-like domain-containing regulators of G protein signaling proteins. <i>Journal of Biological Chemistry</i> , 2000 , 275, 3397-402	5.4	74
106	Evolution-guided discovery and recoding of allosteric pathway specificity determinants in psychoactive bioamine receptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 7787-92	11.5	72
105	Knock-in human rhodopsin-GFP fusions as mouse models for human disease and targets for gene therapy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 9109-14	11.5	70
104	Activation of RGS9-1GTPase acceleration by its membrane anchor, R9AP. <i>Journal of Biological Chemistry</i> , 2003 , 278, 14550-4	5.4	65
103	The nature of dominant mutations of rhodopsin and implications for gene therapy. <i>Molecular Neurobiology</i> , 2003 , 28, 149-58	6.2	64
102	High-affinity triple helix formation by synthetic oligonucleotides at a site within a selectable mammalian gene. <i>Biochemistry</i> , 1995 , 34, 7243-51	3.2	62
101	TRP channel gene expression in the mouse retina. <i>Vision Research</i> , 2011 , 51, 2440-52	2.1	61
100	Gbeta5-RGS complexes co-localize with mGluR6 in retinal ON-bipolar cells. <i>European Journal of Neuroscience</i> , 2007 , 26, 2899-905	3.5	56

99	Membrane stimulation of cGMP phosphodiesterase activation by transducin: comparison of phospholipid bilayers to rod outer segment membranes. <i>Biochemistry</i> , 1992 , 31, 9502-12	3.2	55
98	New mouse models for recessive retinitis pigmentosa caused by mutations in the Pde6a gene. <i>Human Molecular Genetics</i> , 2009 , 18, 178-92	5.6	54
97	The retromer complex is required for rhodopsin recycling and its loss leads to photoreceptor degeneration. <i>PLoS Biology</i> , 2014 , 12, e1001847	9.7	52
96	Single-Atom Fluorescence Switch: A General Approach toward Visible-Light-Activated Dyes for Biological Imaging. <i>Journal of the American Chemical Society</i> , 2019 , 141, 14699-14706	16.4	50
95	Activation-dependent hindrance of photoreceptor G protein diffusion by lipid microdomains. <i>Journal of Biological Chemistry</i> , 2008 , 283, 30015-24	5.4	46
94	Nucleotide exchange and cGMP phosphodiesterase activation by pertussis toxin inactivated transducin. <i>Biochemistry</i> , 1991 , 30, 11637-45	3.2	45
93	High-efficiency triple-helix-mediated photo-cross-linking at a targeted site within a selectable mammalian gene. <i>Biochemistry</i> , 1996 , 35, 10712-9	3.2	43
92	Two R7 regulator of G-protein signaling proteins shape retinal bipolar cell signaling. <i>Journal of Neuroscience</i> , 2009 , 29, 7753-65	6.6	41
91	RGS proteins: lessons from the RGS9 subfamily. <i>Progress in Molecular Biology and Translational Science</i> , 2001 , 65, 341-59		41
90	Multiple zinc binding sites in retinal rod cGMP phosphodiesterase, PDE6alpha beta. <i>Journal of Biological Chemistry</i> , 2000 , 275, 20572-7	5.4	41
89	Enhancement of phototransduction protein interactions by lipid surfaces. <i>Journal of Biological Chemistry</i> , 2000 , 275, 3535-42	5.4	41
88	Mislocalization and degradation of human P23H-rhodopsin-GFP in a knockin mouse model of retinitis pigmentosa 2011 , 52, 9728-36		40
87	Metabolizable ¹¹¹ In chelate conjugated anti-idiotypic monoclonal antibody for radioimmunodetection of lymphoma in mice. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 1986 , 12, 455-60		40
86	Timing is everything: GTPase regulation in phototransduction 2013 , 54, 7725-33		39
85	Localization and differential interaction of R7 RGS proteins with their membrane anchors R7BP and R9AP in neurons of vertebrate retina. <i>Molecular and Cellular Neurosciences</i> , 2007 , 35, 311-9	4.8	39
84	Rhodopsin gene expression determines rod outer segment size and rod cell resistance to a dominant-negative neurodegeneration mutant. <i>PLoS ONE</i> , 2012 , 7, e49889	3.7	38
83	Phosphorylation of RGS9-1 by an endogenous protein kinase in rod outer segments. <i>Journal of Biological Chemistry</i> , 2001 , 276, 22287-95	5.4	38
82	Subcellular compartmentalization of two calcium binding proteins, calretinin and calbindin-28 kDa, in ganglion and amacrine cells of the rat retina. <i>Molecular Vision</i> , 2008 , 14, 1600-13	2.3	35

81	Structural and molecular bases of rod photoreceptor morphogenesis and disease. <i>Progress in Retinal and Eye Research</i> , 2016 , 55, 32-51	20.5	35
80	How a G protein binds a membrane. <i>Journal of Biological Chemistry</i> , 2004 , 279, 33937-45	5.4	32
79	Structures of TRPV2 in distinct conformations provide insight into role of the pore turret. <i>Nature Structural and Molecular Biology</i> , 2019 , 26, 40-49	17.6	30
78	Intramolecular allosteric communication in dopamine D2 receptor revealed by evolutionary amino acid covariation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 3539-44	11.5	29
77	Mutations of the opsin gene (Y102H and I307N) lead to light-induced degeneration of photoreceptors and constitutive activation of phototransduction in mice. <i>Journal of Biological Chemistry</i> , 2010 , 285, 14521-33	5.4	29
76	Hot on the trail of TRP channel structure. <i>Journal of General Physiology</i> , 2009 , 133, 239-44	3.4	29
75	Clearance of intravitreal moxifloxacin. <i>Investigative Ophthalmology and Visual Science</i> , 2006 , 47, 317-9		29
74	Enzymology of GTPase acceleration in phototransduction. <i>Methods in Enzymology</i> , 2000 , 315, 524-38	1.7	29
73	Biosynthesis of the unsaturated 14-carbon fatty acids found on the N termini of photoreceptor-specific proteins. <i>Journal of Biological Chemistry</i> , 1996 , 271, 5007-16	5.4	29
72	Chronic cold exposure increases RGS7 expression and decreases alpha(2)-autoreceptor-mediated inhibition of noradrenergic locus coeruleus neurons. <i>European Journal of Neuroscience</i> , 2008 , 27, 2433-43	3.5	28
71	High affinity interactions of GTPgammaS with the heterotrimeric G protein, transducin. Evidence at high and low protein concentrations. <i>Journal of Biological Chemistry</i> , 1996 , 271, 12919-24	5.4	27
70	Phosphatidylinositol-3-phosphate is light-regulated and essential for survival in retinal rods. <i>Scientific Reports</i> , 2016 , 6, 26978	4.9	27
69	SPATA7 maintains a novel photoreceptor-specific zone in the distal connecting cilium. <i>Journal of Cell Biology</i> , 2018 , 217, 2851-2865	7.3	26
68	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. <i>Biochemistry</i> , 1985 , 24, 3060-9	3.2	26
67	Tokay gecko photoreceptors achieve rod-like physiology with cone-like proteins. <i>Photochemistry and Photobiology</i> , 2006 , 82, 1452-60	3.6	25
66	Identification of protein kinase C isozymes responsible for the phosphorylation of photoreceptor-specific RGS9-1 at Ser475. <i>Journal of Biological Chemistry</i> , 2003 , 278, 8316-25	5.4	24
65	Targeted expression of the dominant-negative FGFR4a in the eye using Xrx1A regulatory sequences interferes with normal retinal development. <i>Development (Cambridge)</i> , 2003 , 130, 4177-86	6.6	23
64	Enhancement of phototransduction g protein-effector interactions by phosphoinositides. <i>Journal of Biological Chemistry</i> , 2004 , 279, 8986-90	5.4	23

63	Triplex targets in the human rhodopsin gene. <i>Biochemistry</i> , 1998 , 37, 11315-22	3.2	23
62	Electrostatic properties of myoglobin probed by diffusion-enhanced energy transfer. <i>Biochemistry</i> , 1983 , 22, 6247-6254	3.2	23
61	Efficient mutagenesis of the rhodopsin gene in rod photoreceptor neurons in mice. <i>Nucleic Acids Research</i> , 2011 , 39, 5955-66	20.1	22
60	Intensely luminescent immunoreactive conjugates of proteins and dipicolinate-based polymeric Tb (III) chelates. <i>Bioconjugate Chemistry</i> , 1995 , 6, 88-92	6.3	22
59	R9AP stabilizes RGS11-G beta5 and accelerates the early light response of ON-bipolar cells. <i>Visual Neuroscience</i> , 2010 , 27, 9-17	1.7	21
58	Tokay Gecko Photoreceptors Achieve Rod-Like Physiology with Cone-Like Proteins□ <i>Photochemistry and Photobiology</i> , 2006 , 82, 1452-1460	3.6	21
57	Formation of helical protein assemblies of IgG and transducin on varied lipid tubules. <i>Journal of Structural Biology</i> , 1999 , 128, 119-30	3.4	21
56	Adrenergic receptor activation mobilizes intracellular calcium via a non-canonical cAMP-independent signaling pathway. <i>Journal of Biological Chemistry</i> , 2017 , 292, 9967-9974	5.4	20
55	A novel reagent for labelling macromolecules with intensely luminescent lanthanide complexes. <i>Tetrahedron Letters</i> , 1993 , 34, 4141-4144	2	20
54	Psoralen photo-cross-linking by triplex-forming oligonucleotides at multiple sites in the human rhodopsin gene. <i>Biochemistry</i> , 1999 , 38, 12850-9	3.2	18
53	Integrative subcellular proteomic analysis allows accurate prediction of human disease-causing genes. <i>Genome Research</i> , 2016 , 26, 660-9	9.7	17
52	Oligomeric state of purified transient receptor potential melastatin-1 (TRPM1), a protein essential for dim light vision. <i>Journal of Biological Chemistry</i> , 2014 , 289, 27019-27033	5.4	17
51	Electrostatic steering at acetylcholine binding sites. <i>Biophysical Journal</i> , 2006 , 91, 1302-14	2.9	17
50	Phagocytosed photoreceptor outer segments activate mTORC1 in the retinal pigment epithelium. <i>Science Signaling</i> , 2018 , 11,	8.8	17
49	Determinants of endogenous ligand specificity divergence among metabotropic glutamate receptors. <i>Journal of Biological Chemistry</i> , 2015 , 290, 2870-8	5.4	15
48	Defective development of photoreceptor membranes in a mouse model of recessive retinal degeneration. <i>Vision Research</i> , 2006 , 46, 4510-8	2.1	15
47	Distribution of RGS9-2 in neurons of the mouse striatum. <i>Journal of Neurochemistry</i> , 2010 , 112, 651-61	6	14
46	Functional and structural studies of TRP channels heterologously expressed in budding yeast. <i>Advances in Experimental Medicine and Biology</i> , 2011 , 704, 25-40	3.6	14

45	Phosphoinositides in Retinal Function and Disease. <i>Cells</i> , 2020 , 9,	7.9	14
44	Defining the layers of a sensory cilium with STORM and cryoelectron nanoscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 23562-23572	11.5	13
43	Domain organization and conformational plasticity of the G protein effector, PDE6. <i>Journal of Biological Chemistry</i> , 2015 , 290, 12833-43	5.4	13
42	Multiphoton adaptation of a commercial low-cost confocal microscope for live tissue imaging. <i>Journal of Biomedical Optics</i> , 2009 , 14, 034048	3.5	13
41	Topical mydriatics affect light-evoked retinal responses in anesthetized mice 2010 , 51, 567-76		12
40	Targeted generation of DNA strand breaks using pyrene-conjugated triplex-forming oligonucleotides. <i>Biochemistry</i> , 2008 , 47, 6279-88	3.2	12
39	Critical Role for Phosphatidylinositol-3 Kinase Vps34/PIK3C3 in ON-Bipolar Cells 2019 , 60, 2861-2874		11
38	Selectivity and evolutionary divergence of metabotropic glutamate receptors for endogenous ligands and G proteins coupled to phospholipase C or TRP channels. <i>Journal of Biological Chemistry</i> , 2014 , 289, 29961-74	5.4	11
37	Abrupt onset of mutations in a developmentally regulated gene during terminal differentiation of post-mitotic photoreceptor neurons in mice. <i>PLoS ONE</i> , 2014 , 9, e108135	3.7	11
36	Nonsense mutations in the rhodopsin gene that give rise to mild phenotypes trigger mRNA degradation in human cells by nonsense-mediated decay. <i>Experimental Eye Research</i> , 2016 , 145, 444-449	3.7	10
35	Nicotinic acetylcholine receptor channel electrostatics determined by diffusion-enhanced luminescence energy transfer. <i>Biophysical Journal</i> , 2006 , 91, 1315-24	2.9	10
34	Characterization of R9AP, a membrane anchor for the photoreceptor GTPase-accelerating protein, RGS9-1. <i>Methods in Enzymology</i> , 2004 , 390, 178-96	1.7	9
33	From molecules to behavior: new clues for RGS function in the striatum. <i>Neuron</i> , 2003 , 38, 853-6	13.9	9
32	Purification, reconstitution on lipid vesicles, and assays of PDE6 and its activator G protein, transducin. <i>Methods in Molecular Biology</i> , 2005 , 307, 289-313	1.4	9
31	Dependence of RGS9-1 membrane attachment on its C-terminal tail. <i>Journal of Biological Chemistry</i> , 2001 , 276, 48961-6	5.4	9
30	Low affinity interactions of GDPbetaS and ribose- or phosphoryl-substituted GTP analogues with the heterotrimeric G protein, transducin. <i>Journal of Biological Chemistry</i> , 1996 , 271, 12925-31	5.4	9
29	A Large Endoplasmic Reticulum-Resident Pool of TRPM1 in Retinal ON-Bipolar Cells. <i>ENeuro</i> , 2018 , 5,	3.9	9
28	Rhodopsin-EGFP knock-ins for imaging quantal gene alterations. <i>Vision Research</i> , 2005 , 45, 3445-53	2.1	8

27	Acceleration of key reactions as a strategy to elucidate the rate-limiting chemistry underlying phototransduction inactivation. <i>Investigative Ophthalmology and Visual Science</i> , 2003 , 44, 1016-22		8
26	Three-dimensional architecture of murine rod cilium revealed by cryo-EM. <i>Methods in Molecular Biology</i> , 2015 , 1271, 267-92	1.4	8
25	MTOR-initiated metabolic switch and degeneration in the retinal pigment epithelium. <i>FASEB Journal</i> , 2020 , 34, 12502-12520	0.9	7
24	RGS9-1 phosphorylation and Ca ²⁺ . <i>Advances in Experimental Medicine and Biology</i> , 2002 , 514, 125-9	3.6	7
23	Evaluating retinal toxicity of intravitreal caspofungin in the mouse eye 2010 , 51, 5796-803		6
22	Membrane-Bound GTP-Transducin Efficiently Activates Retinal cGMP Phosphodiesterase 1988 , 102-112		6
21	RGS function in visual signal transduction. <i>Methods in Enzymology</i> , 2002 , 344, 724-40	1.7	5
20	Differential epitope masking reveals synapse-specific complexes of TRPM1. <i>Visual Neuroscience</i> , 2018 , 35, E001	1.7	4
19	Study of biological macromolecules by diffusion-enhanced lanthanide energy transfer. <i>Journal of the Less Common Metals</i> , 1989 , 149, 143-160		4
18	Biochemical Cascade of Phototransduction 2011 , 394-410		4
17	The ocular toxicity and pharmacokinetics of simvastatin following intravitreal injection in mice. <i>International Journal of Ophthalmology</i> , 2017 , 10, 1361-1369	1.4	3
16	Molecular Biology of Vision 2012 , 889-903		2
15	Defining the Layers of a Sensory Cilium with STORM and Cryo-Electron Nanoscopy. <i>SSRN Electronic Journal</i> ,	1	2
14	Multiple phosphatidylinositol(3)phosphate roles in retinal pigment epithelium membrane recycling		2
13	Superresolution microscopy reveals photoreceptor-specific subciliary location and function of Cep290		2
12	Defining the Layers of a Sensory Cilium with STORM and Cryo-Electron Nanoscopies		2
11	Loss of Class III Phosphoinositide 3-Kinase Vps34 Results in Cone Degeneration. <i>Biology</i> , 2020 , 9,	4.9	2
10	Structure and dynamics of photoreceptor sensory cilia. <i>Pflugers Archiv European Journal of Physiology</i> , 2021 , 473, 1517-1537	4.6	2

9	Residues and residue pairs of evolutionary importance differentially direct signaling bias of D2 dopamine receptors. <i>Journal of Biological Chemistry</i> , 2019 , 294, 19279-19291	5.4	2
8	LRRTM4 is a member of the transsynaptic complex between rod photoreceptors and bipolar cells. <i>Journal of Comparative Neurology</i> , 2021 , 529, 221-233	3.4	2
7	Super-resolution microscopy reveals photoreceptor-specific subciliary location and function of ciliopathy-associated protein CEP290. <i>JCI Insight</i> , 2021 , 6,	9.9	2
6	Regulation of Photoresponses by Phosphorylation 2008 , 125-140		1
5	Safety and pharmacokinetics of triamcinolone hexacetonide in rabbit eyes. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 2008 , 24, 197-205	2.6	1
4	The mGluR6 ligand-binding domain, but not the C-terminal domain, is required for synaptic localization in retinal ON-bipolar cells. <i>Journal of Biological Chemistry</i> , 2021 , 101418	5.4	0
3	More answers about cGMP-gated channels pose more questions. <i>Behavioral and Brain Sciences</i> , 1995 , 18, 492	0.9	
2	Nanosecond Motions Of Genetically-Engineered Antibodies: Structural Elements Controlling Segmental Flexibility Defined By Time-Resolved Emission Anisotropy 1988 , 0909, 108		
1	Phototransduction in Vertebrate Rods and Cones 2020 , 261-274		