

Nikolai O Artemyev

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104
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46
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109
ext. papers

3,097
ext. citations

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avg, IF

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L-index

#	Paper	IF	Citations
104	A homologous genetic basis of the murine cpfl1 mutant and human achromatopsia linked to mutations in the PDE6C gene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 19581-6	11.5	144
103	A site on rod G protein alpha subunit that mediates effector activation. <i>Science</i> , 1992 , 256, 1031-3	33.3	98
102	AGS3 inhibits GDP dissociation from galpha subunits of the Gi family and rhodopsin-dependent activation of transducin. <i>Journal of Biological Chemistry</i> , 2000 , 275, 40981-5	5.4	89
101	Inhibition of GDP/GTP exchange on G alpha subunits by proteins containing G-protein regulatory motifs. <i>Biochemistry</i> , 2001 , 40, 5322-8	3.2	84
100	Intrinsically disordered gamma-subunit of cGMP phosphodiesterase encodes functionally relevant transient secondary and tertiary structure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 1505-10	11.5	82
99	Dysregulation of Ca(v)1.4 channels disrupts the maturation of photoreceptor synaptic ribbons in congenital stationary night blindness type 2. <i>Channels</i> , 2013 , 7, 514-23	3	70
98	Active sites of the cyclic GMP phosphodiesterase gamma-subunit of retinal rod outer segments. <i>FEBS Letters</i> , 1988 , 234, 287-90	3.8	63
97	An effector site that stimulates G-protein GTPase in photoreceptors. <i>Journal of Biological Chemistry</i> , 1995 , 270, 14319-24	5.4	59
96	The carboxyl terminus of the gamma-subunit of rod cGMP phosphodiesterase contains distinct sites of interaction with the enzyme catalytic subunits and the alpha-subunit of transducin. <i>Journal of Biological Chemistry</i> , 1995 , 270, 13210-5	5.4	59
95	The gamma subunit of rod cGMP-phosphodiesterase blocks the enzyme catalytic site. <i>Journal of Biological Chemistry</i> , 1997 , 272, 11686-9	5.4	58
94	Characterization of the G alpha(s) regulator cysteine string protein. <i>Journal of Biological Chemistry</i> , 2005 , 280, 30236-41	5.4	55
93	Mechanism of photoreceptor cGMP phosphodiesterase inhibition by its gamma-subunits. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996 , 93, 5407-12	11.5	55
92	Probing domain functions of chimeric PDE6alpha/PDE5 cGMP-phosphodiesterase. <i>Journal of Biological Chemistry</i> , 1998 , 273, 24485-90	5.4	53
91	Decreased catalytic activity and altered activation properties of PDE6C mutants associated with autosomal recessive achromatopsia. <i>Human Molecular Genetics</i> , 2011 , 20, 719-30	5.6	52
90	The trimeric GTP-binding protein (G(q)/G(11)) alpha subunit is required for insulin-stimulated GLUT4 translocation in 3T3L1 adipocytes. <i>Journal of Biological Chemistry</i> , 2000 , 275, 7167-75	5.4	51
89	Structural basis of phosphodiesterase 6 inhibition by the C-terminal region of the gamma-subunit. <i>EMBO Journal</i> , 2009 , 28, 3613-22	13	49
88	Transducin activation state controls its light-dependent translocation in rod photoreceptors. <i>Journal of Biological Chemistry</i> , 2005 , 280, 41069-76	5.4	47

87	A nonhuman primate model of inherited retinal disease. <i>Journal of Clinical Investigation</i> , 2019 , 129, 863-874	46
86	Regulation of transducin GTPase activity by human retinal RGS. <i>Journal of Biological Chemistry</i> , 1997 , 272, 17444-9	5.4 44
85	Direct interaction of the inhibitory gamma-subunit of Rod cGMP phosphodiesterase (PDE6) with the PDE6 GAFa domains. <i>Biochemistry</i> , 2002 , 41, 3884-90	3.2 44
84	The inhibitory gamma subunit of the rod cGMP phosphodiesterase binds the catalytic subunits in an extended linear structure. <i>Journal of Biological Chemistry</i> , 2006 , 281, 15412-22	5.4 40
83	⚡ Is Required for the Molecular and Structural Organization of Rod and Cone Photoreceptor Synapses. <i>Journal of Neuroscience</i> , 2018 , 38, 6145-6160	6.6 39
82	Mutational analysis of the Asn residue essential for RGS protein binding to G-proteins. <i>Journal of Biological Chemistry</i> , 1998 , 273, 6731-5	5.4 39
81	Light-dependent compartmentalization of transducin in rod photoreceptors. <i>Molecular Neurobiology</i> , 2008 , 37, 44-51	6.2 37
80	Rod phosphodiesterase-6 PDE6A and PDE6B subunits are enzymatically equivalent. <i>Journal of Biological Chemistry</i> , 2010 , 285, 39828-34	5.4 36
79	Rhodopsin determinants for transducin activation: a gain-of-function approach. <i>Journal of Biological Chemistry</i> , 2003 , 278, 37574-81	5.4 36
78	Interaction of transducin with uncoordinated 119 protein (UNC119): implications for the model of transducin trafficking in rod photoreceptors. <i>Journal of Biological Chemistry</i> , 2011 , 286, 28954-28962	5.4 35
77	Asymmetric interaction between rod cyclic GMP phosphodiesterase gamma subunits and alphabeta subunits. <i>Journal of Biological Chemistry</i> , 2005 , 280, 12585-92	5.4 35
76	Probing the mechanism of rhodopsin-catalyzed transducin activation. <i>Journal of Neurochemistry</i> , 2001 , 77, 202-10	6 35
75	Mechanisms of dominant negative G-protein alpha subunits. <i>Journal of Neuroscience Research</i> , 2007 , 85, 3505-14	4.4 34
74	Rhodopsin recognition by mutant G(s)alpha containing C-terminal residues of transducin. <i>Journal of Biological Chemistry</i> , 2000 , 275, 2669-75	5.4 33
73	A conformational switch in the inhibitory gamma-subunit of PDE6 upon enzyme activation by transducin. <i>Biochemistry</i> , 2001 , 40, 13209-15	3.2 32
72	A single mutation Asp229 --> Ser confers upon Gs alpha the ability to interact with regulators of G protein signaling. <i>Biochemistry</i> , 1998 , 37, 13776-80	3.2 32
71	Identification of effector residues on photoreceptor G protein, transducin. <i>Journal of Biological Chemistry</i> , 1998 , 273, 21808-15	5.4 32
70	The GAFa domains of rod cGMP-phosphodiesterase 6 determine the selectivity of the enzyme dimerization. <i>Journal of Biological Chemistry</i> , 2003 , 278, 10594-601	5.4 31

69	Roles of the transducin alpha-subunit alpha4-helix/alpha4-beta6 loop in the receptor and effector interactions. <i>Journal of Biological Chemistry</i> , 1999 , 274, 7865-9	5.4	31
68	Luteinizing Hormone Causes Phosphorylation and Activation of the cGMP Phosphodiesterase PDE5 in Rat Ovarian Follicles, Contributing, Together with PDE1 Activity, to the Resumption of Meiosis. <i>Biology of Reproduction</i> , 2016 , 94, 110	3.9	30
67	Transducin translocation contributes to rod survival and enhances synaptic transmission from rods to rod bipolar cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 12468-73	11.5	30
66	Mutation in rod PDE6 linked to congenital stationary night blindness impairs the enzyme inhibition by its gamma-subunit. <i>Biochemistry</i> , 2003 , 42, 3305-10	3.2	30
65	Loss of the effector function in a transducin-alpha mutant associated with Nougaret night blindness. <i>Journal of Biological Chemistry</i> , 2000 , 275, 6969-74	5.4	30
64	Photoreceptor phosphodiesterase: interaction of inhibitory gamma subunit and cyclic GMP with specific binding sites on catalytic subunits. <i>Methods</i> , 1998 , 14, 93-104	4.6	29
63	An interface of interaction between photoreceptor cGMP phosphodiesterase catalytic subunits and inhibitory gamma subunits. <i>Journal of Biological Chemistry</i> , 1996 , 271, 19964-9	5.4	29
62	The PDE6 mutation in the rd10 retinal degeneration mouse model causes protein mislocalization and instability and promotes cell death through increased ion influx. <i>Journal of Biological Chemistry</i> , 2018 , 293, 15332-15346	5.4	29
61	Identification of the gamma subunit-interacting residues on photoreceptor cGMP phosphodiesterase, PDE6alpha U <i>Journal of Biological Chemistry</i> , 2000 , 275, 41258-62	5.4	28
60	Interaction of aryl hydrocarbon receptor-interacting protein-like 1 with the farnesyl moiety. <i>Journal of Biological Chemistry</i> , 2013 , 288, 21320-21328	5.4	27
59	Structural determinants of the PDE6 GAF A domain for binding the inhibitory gamma-subunit and noncatalytic cGMP. <i>Vision Research</i> , 2004 , 44, 2437-44	2.1	27
58	Modulation of transducin GTPase activity by chimeric RGS16 and RGS9 regulators of G protein signaling and the effector molecule. <i>Biochemistry</i> , 1999 , 38, 4931-7	3.2	27
57	Characterization of human cone phosphodiesterase-6 ectopically expressed in <i>Xenopus laevis</i> rods. <i>Journal of Biological Chemistry</i> , 2009 , 284, 32662-9	5.4	26
56	Binding of transducin to light-activated rhodopsin prevents transducin interaction with the rod cGMP phosphodiesterase gamma-subunit. <i>Biochemistry</i> , 1997 , 36, 4188-93	3.2	25
55	Unique transducins expressed in long and short photoreceptors of lamprey <i>Petromyzon marinus</i> . <i>Vision Research</i> , 2008 , 48, 2302-8	2.1	25
54	Analysis of PDE6 function using chimeric PDE5/6 catalytic domains. <i>Vision Research</i> , 2006 , 46, 860-8	2.1	25
53	Partial reconstitution of photoreceptor cGMP phosphodiesterase characteristics in cGMP phosphodiesterase-5. <i>Journal of Biological Chemistry</i> , 2001 , 276, 21698-703	5.4	25
52	N-terminal fatty acylation of transducin profoundly influences its localization and the kinetics of photoresponse in rods. <i>Journal of Neuroscience</i> , 2007 , 27, 10270-7	6.6	24

51	Substitution of transducin ser202 by asp abolishes G-protein/RGS interaction. <i>Journal of Biological Chemistry</i> , 1998 , 273, 4300-3	5.4	24
50	Aryl Hydrocarbon Receptor-interacting Protein-like 1 Is an Obligate Chaperone of Phosphodiesterase 6 and Is Assisted by the β Subunit of Its Client. <i>Journal of Biological Chemistry</i> , 2016 , 291, 16282-91	5.4	23
49	PDE6 in lamprey <i>Petromyzon marinus</i> : implications for the evolution of the visual effector in vertebrates. <i>Biochemistry</i> , 2007 , 46, 9992-10000	3.2	23
48	Exchange of Cone for Rod Phosphodiesterase 6 Catalytic Subunits in Rod Photoreceptors Mimics in Part Features of Light Adaptation. <i>Journal of Neuroscience</i> , 2015 , 35, 9225-35	6.6	22
47	Interaction of transducin-alpha with LGN, a G-protein modulator expressed in photoreceptor cells. <i>Molecular and Cellular Neurosciences</i> , 2005 , 28, 485-95	4.8	22
46	A GPR-protein interaction surface of Gi(alpha): implications for the mechanism of GDP-release inhibition. <i>Biochemistry</i> , 2002 , 41, 258-65	3.2	22
45	Subunit structure of rod cGMP-phosphodiesterase. <i>Journal of Biological Chemistry</i> , 1996 , 271, 25382-8	5.4	21
44	Mechanisms of mutant PDE6 proteins underlying retinal diseases. <i>Cellular Signalling</i> , 2017 , 37, 74-80	4.9	20
43	Phototransduction in a transgenic mouse model of Nougaret night blindness. <i>Journal of Neuroscience</i> , 2006 , 26, 6863-72	6.6	20
42	A truncated form of rod photoreceptor PDE6 β subunit causes autosomal dominant congenital stationary night blindness by interfering with the inhibitory activity of the β subunit. <i>PLoS ONE</i> , 2014 , 9, e95768	3.7	19
41	AIP1: A specialized chaperone for the phototransduction effector. <i>Cellular Signalling</i> , 2017 , 40, 183-189	4.9	18
40	Diffusion and light-dependent compartmentalization of transducin. <i>Molecular and Cellular Neurosciences</i> , 2011 , 46, 340-6	4.8	18
39	Coupling between the N- and C-terminal domains influences transducin-alpha intrinsic GDP/GTP exchange. <i>Biochemistry</i> , 2000 , 39, 3937-42	3.2	18
38	Heterologous expression of bovine rhodopsin in <i>Drosophila</i> photoreceptor cells. <i>Investigative Ophthalmology and Visual Science</i> , 2006 , 47, 3722-8		17
37	Extended conformation of the proline-rich domain of human aryl hydrocarbon receptor-interacting protein-like 1: implications for retina disease. <i>Journal of Neurochemistry</i> , 2015 , 135, 165-75	6	16
36	Hsp40 couples with the CSPalpha chaperone complex upon induction of the heat shock response. <i>PLoS ONE</i> , 2009 , 4, e4595	3.7	16
35	Interaction of human retinal RGS with G-protein alpha-subunits. <i>FEBS Letters</i> , 1997 , 411, 179-82	3.8	14
34	Expression and subcellular distribution of UNC119a, a protein partner of transducin β subunit in rod photoreceptors. <i>Cellular Signalling</i> , 2013 , 25, 341-8	4.9	12

33	Unique structural features of the AIPL1-FKBP domain that support prenyl lipid binding and underlie protein malfunction in blindness. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E6536-E6545	11.5	12
32	Structural underpinnings of Ric8A function as a G-protein β -subunit chaperone and guanine-nucleotide exchange factor. <i>Nature Communications</i> , 2019 , 10, 3084	17.4	11
31	Determinants for phosphodiesterase 6 inhibition by its gamma-subunit. <i>Biochemistry</i> , 2010 , 49, 3862-7	3.2	10
30	The <i>Drosophila</i> rhodopsin cytoplasmic tail domain is required for maintenance of rhabdomere structure. <i>FASEB Journal</i> , 2007 , 21, 449-55	0.9	10
29	Mutational analysis of functional interfaces of transducin. <i>Methods in Enzymology</i> , 2000 , 315, 539-54	1.7	10
28	A dual role for Ca _v 1.4 Ca channels in the molecular and structural organization of the rod photoreceptor synapse. <i>ELife</i> , 2020 , 9,	8.9	10
27	Comparative analysis of cone and rod transducins using chimeric G β -subunits. <i>Biochemistry</i> , 2012 , 51, 1617-24	3.2	9
26	Probing functional interfaces of rod PDE gamma-subunit using scanning fluorescent labeling. <i>Cell Biochemistry and Biophysics</i> , 1998 , 28, 115-33	3.2	9
25	NMR resonance assignments of the FKBP domain of human aryl hydrocarbon receptor-interacting protein-like 1 (AIPL1) in complex with a farnesyl ligand. <i>Biomolecular NMR Assignments</i> , 2017 , 11, 111-115	11.7	8
24	The GAFa domain of phosphodiesterase-6 contains a rod outer segment localization signal. <i>Journal of Neurochemistry</i> , 2014 , 129, 256-63	6	8
23	Interaction of the tetratricopeptide repeat domain of aryl hydrocarbon receptor-interacting protein-like 1 with the regulatory P β -subunit of phosphodiesterase 6. <i>Journal of Biological Chemistry</i> , 2019 , 294, 15795-15807	5.4	7
22	Distinct patterns of compartmentalization and proteolytic stability of PDE6C mutants linked to achromatopsia. <i>Molecular and Cellular Neurosciences</i> , 2015 , 64, 1-8	4.8	7
21	Photophobia and abnormally sustained pupil responses in a mouse model of bradyopsia. <i>Investigative Ophthalmology and Visual Science</i> , 2014 , 55, 6878-85		7
20	Dominant negative mutants of transducin-alpha that block activated receptor. <i>Biochemistry</i> , 2006 , 45, 6488-94	3.2	7
19	A point mutation uncouples transducin-alpha from the photoreceptor RGS and effector proteins. <i>Journal of Neurochemistry</i> , 2003 , 87, 1262-71	6	7
18	Chaperones and retinal disorders. <i>Advances in Protein Chemistry and Structural Biology</i> , 2019 , 114, 85-117	5.3	6
17	Mutation R238E in transducin-alpha yields a GTPase and effector-deficient, but not dominant-negative, G-protein alpha-subunit. <i>Molecular Vision</i> , 2006 , 12, 492-8	2.3	6
16	Large-scale conformational rearrangement of the β -helix of G β -subunits in complex with the guanine nucleotide exchange factor Ric8A. <i>Journal of Biological Chemistry</i> , 2019 , 294, 17875-17882	5.4	5

15	Atypical retinal degeneration 3 in mice is caused by defective PDE6B pre-mRNA splicing. <i>Vision Research</i> , 2012 , 57, 1-8	2.1	5
14	Specific peptide probes for G-protein interaction with effectors. <i>Methods in Enzymology</i> , 1994 , 238, 13-28.	7	5
13	The solution structure of the transducin- β -uncoordinated 119 protein complex suggests occlusion of the G β -binding sites. <i>FEBS Journal</i> , 2015 , 282, 550-61	5.7	3
12	Interactions between catalytic and inhibitory subunits of PDE6. <i>Methods in Molecular Biology</i> , 2005 , 307, 277-88	1.4	3
11	Rod cGMP-Phosphodiesterase β -Subunit: Structure-Function Relationships. <i>Methods</i> , 1993 , 5, 220-228	4.6	3
10	NMR resonance assignments of the TPR domain of human aryl hydrocarbon receptor-interacting protein-like 1 (AIPL1). <i>Biomolecular NMR Assignments</i> , 2019 , 13, 79-83	0.7	3
9	Ric-8A, a GEF, and a Chaperone for G Protein β -Subunits: Evidence for the Two-Faced Interface. <i>BioEssays</i> , 2020 , 42, e1900208	4.1	1
8	Probing the mechanism of rhodopsin-catalyzed transducin activation. <i>Journal of Neurochemistry</i> , 2008 , 77, 202-210	6	1
7	Probing rhodopsin-transducin interaction using Drosophila Rh1-bovine rhodopsin chimeras. <i>Vision Research</i> , 2006 , 46, 4575-81	2.1	1
6	Inhibition of photoreceptor cGMP phosphodiesterase by its gamma subunit. <i>Methods in Enzymology</i> , 2000 , 315, 635-46	1.7	1
5	Transducin Partners Outside the Phototransduction Pathway. <i>Frontiers in Cellular Neuroscience</i> , 2020 , 14, 589494	6.1	0
4	Ex Vivo Functional Evaluation of Synaptic Transmission from Rods to Rod Bipolar Cells in Mice. <i>Methods in Molecular Biology</i> , 2018 , 1753, 203-216	1.4	0
3	Molecular insights into the maturation of phosphodiesterase 6 by the specialized chaperone complex of HSP90 with AIPL1.. <i>Journal of Biological Chemistry</i> , 2022 , 101620	5.4	0
2	Assays of G protein/cGMP-phosphodiesterase interactions. <i>Methods in Enzymology</i> , 2002 , 345, 27-37	1.7	
1	G-Protein-Effector Coupling in the Vertebrate Phototransduction Cascade 2014 , 49-64		