George B Witman

List of Publications by Year
in descending order

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Version: 2024-02-01

135 papers	18,792 citations	18887 64 h-index	19470 122 g-index
167 all docs	167 docs citations	167 times ranked	11572 citing authors

#	Article	IF	Citations
1	Consensus nomenclature for dyneins and associated assembly factors. Journal of Cell Biology, 2022, 221, .	2.3	25
2	Chlamydomonas FAP70 is a component of the previously uncharacterized ciliary central apparatus projection C2a. Journal of Cell Science, 2021, 134, .	1.2	13
3	Structural organization of the C1b projection within the ciliary central apparatus. Journal of Cell Science, 2021, 134, .	1.2	3
4	The unity and diversity of the ciliary central apparatus. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190164.	1.8	18
5	Diffusion rather than IFT likely provides most of the tubulin required for axonemal assembly. Journal of Cell Science, 2020, 133, .	1.2	33
6	TIM, a targeted insertional mutagenesis method utilizing CRISPR/Cas9 in Chlamydomonas reinhardtii. PLoS ONE, 2020, 15, e0232594.	1.1	50
7	TIM, a targeted insertional mutagenesis method utilizing CRISPR/Cas9 in Chlamydomonas reinhardtii. , 2020, 15, e0232594.		0
8	TIM, a targeted insertional mutagenesis method utilizing CRISPR/Cas9 in Chlamydomonas reinhardtii. , 2020, 15, e0232594.		0
9	TIM, a targeted insertional mutagenesis method utilizing CRISPR/Cas9 in Chlamydomonas reinhardtii. , 2020, 15, e0232594.		0
10	TIM, a targeted insertional mutagenesis method utilizing CRISPR/Cas9 in Chlamydomonas reinhardtii. , 2020, 15, e0232594.		0
11	A global analysis of IFT-A function reveals specialization for transport of membrane-associated proteins into cilia. Journal of Cell Science, 2019, 132, .	1.2	53
12	Proteome of the central apparatus of a ciliary axoneme. Journal of Cell Biology, 2019, 218, 2051-2070.	2.3	62
13	Structural organization of the C1a-e-c supercomplex within the ciliary central apparatus. Journal of Cell Biology, 2019, 218, 4236-4251.	2.3	38
14	Dynein and intraflagellar transport. , 2018, , 386-432.		2
15	A microtubule-dynein tethering complex regulates the axonemal inner dyneinf(I1). Molecular Biology of the Cell, 2018, 29, 1060-1074.	0.9	51
16	The N-terminus of IFT46 mediates intraflagellar transport of outer arm dynein and its cargo-adaptor ODA16. Molecular Biology of the Cell, 2017, 28, 2420-2433.	0.9	41
17	Characterization of a new oda3 allele, oda3-6, defective in assembly of the outer dynein arm-docking complex in Chlamydomonas reinhardtii. PLoS ONE, 2017, 12, e0173842.	1.1	6
18	IFT trains in different stages of assembly queue at the ciliary base for consecutive release into the cilium. ELife, 2017, 6, .	2.8	90

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19	The IFT81 and IFT74 N-termini together form the major module for intraflagellar transport of tubulin. Journal of Cell Science, 2016, 129, 2106-19.	1.2	81
20	Superresolution Pattern Recognition Reveals the Architectural Map of the Ciliary Transition Zone. Scientific Reports, 2015, 5, 14096.	1.6	128
21	Dynein and intraflagellar transport. Experimental Cell Research, 2015, 334, 26-34.	1.2	54
22	Intraflagellar transport is essential for mammalian spermiogenesis but is absent in mature sperm. Molecular Biology of the Cell, 2015, 26, 4358-4372.	0.9	87
23	In Situ Localization of N and C Termini of Subunits of the Flagellar Nexin-Dynein Regulatory Complex (N-DRC) Using SNAP Tag and Cryo-electron Tomography. Journal of Biological Chemistry, 2015, 290, 5341-5353.	1.6	51
24	CFAP54 is required for proper ciliary motility and assembly of the central pair apparatus in mice. Molecular Biology of the Cell, 2015, 26, 3140-3149.	0.9	51
25	Reduced tubulin polyglutamylation suppresses flagellar shortness inChlamydomonas. Molecular Biology of the Cell, 2015, 26, 2810-2822.	0.9	50
26	Assembly of IFT Trains at the Ciliary Base Depends on IFT74. Current Biology, 2015, 25, 1583-1593.	1.8	64
27	DRC3 connects the N-DRC to dynein g to regulate flagellar waveform. Molecular Biology of the Cell, 2015, 26, 2788-2800.	0.9	48
28	TCTEX1D2 mutations underlie Jeune asphyxiating thoracic dystrophy with impaired retrograde intraflagellar transport. Nature Communications, 2015, 6, 7074.	5.8	51
29	Novel Jbts17 mutant mouse model of Joubert syndrome with cilia transition zone defects and cerebellar and other ciliopathy related anomalies. Human Molecular Genetics, 2015, 24, 3994-4005.	1.4	34
30	Cilia and Diseases. BioScience, 2014, 64, 1126-1137.	2.2	167
31	Cooperative binding of the outer arm-docking complex underlies the regular arrangement of outer arm dynein in the axoneme. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 9461-9466.	3.3	52
32	Flipping a Phosphate Switch on Kinesin-II to Turn IFT Around. Developmental Cell, 2014, 30, 492-493.	3.1	3
33	Characterization of THB1, a Chlamydomonas reinhardtii Truncated Hemoglobin: Linkage to Nitrogen Metabolism and Identification of Lysine as the Distal Heme Ligand. Biochemistry, 2014, 53, 4573-4589.	1.2	41
34	Nephrocystin-4 controls ciliary trafficking of membrane and large soluble proteins at the transition zone. Journal of Cell Science, 2014, 127, 4714-27.	1.2	80
35	The Chlamydomonas genome project: a decade on. Trends in Plant Science, 2014, 19, 672-680.	4.3	145
36	Flagellar central pair assembly in Chlamydomonas reinhardtii. Cilia, 2013, 2, 15.	1.8	52

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37	Cycling of the signaling protein phospholipase D through cilia requires the BBSome only for the export phase. Journal of Cell Biology, 2013, 201, 249-261.	2.3	131
38	Avalanche-like behavior in ciliary import. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3925-3930.	3.3	110
39	Isolation of Chlamydomonas Flagella. Current Protocols in Cell Biology, 2013, 59, Unit 3.41.1-9.	2.3	42
40	The role of retrograde intraflagellar transport in flagellar assembly, maintenance, and function. Journal of Cell Biology, 2012, 199, 151-167.	2.3	103
41	A FAP46 mutant provides new insights into the function and assembly of the C1d complex of the ciliary central apparatus. Journal of Cell Science, 2012, 125, 3904-13.	1.2	38
42	Dynein and Intraflagellar Transport. , 2012, , 394-421.		2
43	A unified taxonomy for ciliary dyneins. Cytoskeleton, 2011, 68, 555-565.	1.0	77
44	Regulation of flagellar motility by the conserved flagellar protein CG34110/Ccdc135/FAP50. Molecular Biology of the Cell, 2011, 22, 976-987.	0.9	48
45	CEP290 tethers flagellar transition zone microtubules to the membrane and regulates flagellar protein content. Journal of Cell Biology, 2010, 190, 927-940.	2.3	345
46	Characterization of Novel BBS Mutants in Chlamydomonas reinhardtii. FASEB Journal, 2010, 24, lb141.	0.2	0
47	IC97 Is a Novel Intermediate Chain of I1 Dynein That Interacts with Tubulin and Regulates Interdoublet Sliding. Molecular Biology of the Cell, 2009, 20, 3044-3054.	0.9	49
48	Total Internal Reflection Fluorescence (TIRF) Microscopy of Chlamydomonas Flagella. Methods in Cell Biology, 2009, 93, 157-177.	0.5	43
49	High-Speed Digital Imaging of Ependymal Cilia in the Murine Brain. Methods in Cell Biology, 2009, 91, 255-264.	0.5	13
50	The Chlamydomonas reinhardtii BBSome is an IFT cargo required for export of specific signaling proteins from flagella. Journal of Cell Biology, 2009, 187, 1117-1132.	2.3	314
51	HAâ€tagging of putative flagellar proteins in Chlamydomonas reinhardtii identifies a novel protein of intraflagellar transport complex B. Cytoskeleton, 2009, 66, 469-482.	4.4	64
52	The Chlamydomonas Flagellum as a Model for Human Ciliary Disease. , 2009, , 445-478.		6
53	Mutations in Hydin impair ciliary motility in mice. Journal of Cell Biology, 2008, 180, 633-643.	2.3	236
54	Functional analysis of an individual IFT protein: IFT46 is required for transport of outer dynein arms into flagella. Journal of Cell Biology, 2007, 176, 653-665.	2.3	200

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55	Chlamydomonas reinhardtii hydin is a central pair protein required for flagellar motility. Journal of Cell Biology, 2007, 176, 473-482.	2.3	151
56	Function and dynamics of PKD2 in Chlamydomonas reinhardtii flagella. Journal of Cell Biology, 2007, 179, 501-514.	2.3	183
57	The Chlamydomonas Genome Reveals the Evolution of Key Animal and Plant Functions. Science, 2007, 318, 245-250.	6.0	2,354
58	Radial spoke proteins of Chlamydomonas flagella. Journal of Cell Science, 2006, 119, 1165-1174.	1.2	215
59	Proteomics of Motile & Primary Cilia: Clues to Human Disease. FASEB Journal, 2006, 20, A437.	0.2	0
60	Identification of predicted human outer dynein arm genes: candidates for primary ciliary dyskinesia genes. Journal of Medical Genetics, 2005, 43, 62-73.	1.5	102
61	Differential Light Chain Assembly Influences Outer Arm Dynein Motor Function. Molecular Biology of the Cell, 2005, 16, 5661-5674.	0.9	47
62	Proteomic analysis of a eukaryotic cilium. Journal of Cell Biology, 2005, 170, 103-113.	2.3	933
63	Cytoplasmic dynein nomenclature. Journal of Cell Biology, 2005, 171, 411-413.	2.3	171
64	Oda5p, a Novel Axonemal Protein Required for Assembly of the Outer Dynein Arm and an Associated Adenylate Kinase. Molecular Biology of the Cell, 2004, 15, 2729-2741.	0.9	80
65	Pericentrin forms a complex with intraflagellar transport proteins and polycystin-2 and is required for primary cilia assembly. Journal of Cell Biology, 2004, 166, 637-643.	2.3	175
66	The Autosomal Recessive Polycystic Kidney Disease Protein Is Localized to Primary Cilia, with Concentration in the Basal Body Area. Journal of the American Society of Nephrology: JASN, 2004, 15, 592-602.	3.0	149
67	Novel Role for a Sterol Response Element Binding Protein in Directing Spermatogenic Cell-Specific Gene Expression. Molecular and Cellular Biology, 2004, 24, 10681-10688.	1.1	17
68	A Dynein Light Intermediate Chain, D1bLIC, Is Required for Retrograde Intraflagellar Transport. Molecular Biology of the Cell, 2004, 15, 4382-4394.	0.9	106
69	Photoreceptors and Intraflagellar Transport. , 2004, , 109-132.		1
70	The vertebrate primary cilium is a sensory organelle. Current Opinion in Cell Biology, 2003, 15, 105-110.	2.6	420
71	Cell Motility: Deaf Drosophila Keep the Beat. Current Biology, 2003, 13, R796-R798.	1.8	29
72	DC3, the 21-kDa Subunit of the Outer Dynein Arm-Docking Complex (ODA-DC), Is a Novel EF-Hand Protein Important for Assembly of Both the Outer Arm and the ODA-DC. Molecular Biology of the Cell, 2003, 14, 3650-3663.	0.9	95

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73	DC3, the Smallest Subunit of the Chlamydomonas Flagellar Outer Dynein Arm-docking Complex, Is a Redox-sensitive Calcium-binding Protein. Journal of Biological Chemistry, 2003, 278, 42652-42659.	1.6	42
74	The intraflagellar transport protein, IFT88, is essential for vertebrate photoreceptor assembly and maintenance. Journal of Cell Biology, 2002, 157, 103-114.	2.3	441
75	The Outer Dynein Arm-Docking Complex: Composition and Characterization of a Subunit (Oda1) Necessary for Outer Arm Assembly. Molecular Biology of the Cell, 2002, 13, 1015-1029.	0.9	121
76	Polycystin-2 localizes to kidney cilia and the ciliary level is elevated in orpk mice with polycystic kidney disease. Current Biology, 2002, 12, R378-R380.	1.8	472
77	Intraflagellar transport. Nature Reviews Molecular Cell Biology, 2002, 3, 813-825.	16.1	1,401
78	Amoeboid Movement, Cilia, and Flagella. , 2001, , 959-983.		0
79	Transport and arrangement of the outer-dynein-arm docking complex in the flagella ofChlamydomonas mutants that lack outer dynein arms. Cytoskeleton, 2001, 48, 277-286.	4.4	62
80	Differential Expression of the Cs and CÎ±1 Isoforms of the Catalytic Subunit of Cyclic 3â€²,5â€²-Adenosine Monophosphate-Dependent Protein Kinase in Testicular Cells1. Biology of Reproduction, 2001, 65, 151-164.	1.2	41
81	The Unique Catalytic Subunit of Sperm cAMP-dependent Protein Kinase Is the Product of an Alternative CÎ± mRNA Expressed Specifically in Spermatogenic Cells. Molecular Biology of the Cell, 2000, 11, 3031-3044.	0.9	35
82	Chlamydomonas IFT88 and Its Mouse Homologue, Polycystic Kidney Disease Gene Tg737, Are Required for Assembly of Cilia and Flagella. Journal of Cell Biology, 2000, 151, 709-718.	2.3	1,009
83	Forward and Reverse Genetic Analysis of Microtubule Motors in Chlamydomonas. Methods, 2000, 22, 285-298.	1.9	58
84	LC2, theChlamydomonasHomologue of thetComplex-encoded Protein Tctex2, Is Essential for Outer Dynein Arm Assembly. Molecular Biology of the Cell, 1999, 10, 3507-3520.	0.9	58
85	Rotation of the Central Pair Microtubules in Eukaryotic Flagella. Molecular Biology of the Cell, 1999, 10, 1-4.	0.9	133
86	The DHC1b (DHC2) Isoform of Cytoplasmic Dynein Is Required for Flagellar Assembly. Journal of Cell Biology, 1999, 144, 473-481.	2.3	432
87	An insertional mutant ofChlamydomonas reinhardtii with defective microtubule positioning. , 1999, 44, 143-154.		16
88	The Catalytic Subunit of the cAMP-dependent Protein Kinase of Ovine Sperm Flagella Has a Unique Amino-terminal Sequence. Journal of Biological Chemistry, 1998, 273, 24874-24883.	1.6	58
89	A Dynein Light Chain Is Essential for the Retrograde Particle Movement of Intraflagellar Transport (IFT). Journal of Cell Biology, 1998, 141, 979-992.	2.3	393
90	The Chlamydomonas reinhardtii ODA3 Gene Encodes a Protein of the Outer Dynein Arm Docking Complex. Journal of Cell Biology, 1997, 137, 1069-1080.	2.3	110

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91	Functional interaction betweenChlamydomonas outer arm dynein subunits: The Î³ subunit suppresses the ATPase activity of the Î±Î² dimer. , 1997, 37, 338-345.		19
92	Chapter 6 Isolation of Ram Sperm Flagella. Methods in Cell Biology, 1995, 47, 31-36.	0.5	8
93	Chapter 20 Detection of Flagellar Protein Kinases on Polyvinylidene Difluoride Membranes Following Sodium Dodecyl Sulfateâ€"Polyacrylamide Gel Electrophoresis. Methods in Cell Biology, 1995, 47, 135-140.	0.5	2
94	Chapter 36 Preparation and Reactivation of Demembranated, Cytosol-Free Ram Spermatozoa. Methods in Cell Biology, 1995, 47, 251-255.	0.5	1
95	Mutational analysis of the phototransduction pathway of Chlamydomonas reinhardtii.. Journal of Cell Biology, 1995, 131, 427-440.	2.3	132
96	Chapter 30 Reactivation of Chlamydomonas Cell Models. Methods in Cell Biology, 1995, 47, 207-210.	0.5	4
97	The 78,000 M(r) intermediate chain of Chlamydomonas outer arm dynein isa WD-repeat protein required for arm assembly.. Journal of Cell Biology, 1995, 129, 169-178.	2.3	152
98	The 78,000-M(r) intermediate chain of Chlamydomonas outer arm dynein is a microtubule-binding protein.. Journal of Cell Biology, 1995, 131, 399-409.	2.3	64
99	Chapter 40 Assay of Chlamydomonas Phototaxis. Methods in Cell Biology, 1995, 47, 281-287.	0.5	20
100	Electron micrographic studies of transport of oligodeoxynucleotides across eukaryotic cell membranes.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 3156-3160.	3.3	57
101	Role of cAMP in the reactivation of demembranated ram spermatozoa. Cytoskeleton, 1994, 27, 206-218.	4.4	69
102	Novel touch-induced, Ca2+-dependent phobic response in a flagellate green alga. Cytoskeleton, 1994, 29, 97-109.	4.4	25
103	Reactivation of demembranated, cytosol-free ram spermatozoa. Cytoskeleton, 1993, 24, 264-273.	4.4	10
104	Chlamydomonas phototaxis. Trends in Cell Biology, 1993, 3, 403-408.	3.6	185
105	A Chlamydomonas outer arm dynein mutant with a truncated beta heavy chain. Journal of Cell Biology, 1993, 122, 653-661.	2.3	132
106	ptx1, a nonphototactic mutant of Chlamydomonas, lacks control of flagellar dominance.. Journal of Cell Biology, 1993, 120, 733-741.	2.3	66
107	The motile beta/IC1 subunit of sea urchin sperm outer arm dynein does not form a rigor bond.. Journal of Cell Biology, 1992, 118, 1177-1188.	2.3	65
108	The alpha subunit of sea urchin sperm outer arm dynein mediates structural and rigor binding to microtubules.. Journal of Cell Biology, 1992, 118, 1189-1200.	2.3	68

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109	Axonemal dyneins. Current Opinion in Cell Biology, 1992, 4, 74-79.	2.6	79
110	[34] Demembranation and reactivation of mammalian spermatozoa from golden hamster and ram. Methods in Enzymology, 1991, 196, 417-428.	0.4	11
111	[18] Purification and characterization of Salmo gairdneri outer arm dynein. Methods in Enzymology, 1991, 196, 201-222.	0.4	8
112	Outer-arm dynein from trout spermatozoa: Substructural organization. Cytoskeleton, 1990, 16, 266-278.	4.4	42
113	Introduction to Cilia and Flagella. , 1990, , 1-30.		39
114	A two-step procedure for efficient electrotransfer of both high-molecular-weight (>400,000) and low-molecular-weight (<20,000) proteins. Analytical Biochemistry, 1987, 162, 370-377.	1.1	174
115	Flagellar movement of intact and demembranated, reactivated ram spermatozoa. Cytoskeleton, 1987, 8, 375-391.	4.4	39
116	Isolated flagellar outer arm dynein translocates brain microtubules in vitro. Nature, 1987, 330, 672-674.	13.7	116
117	[28] Isolation of Chlamydomonas flagella and flagellar axonemes. Methods in Enzymology, 1986, 134, 280-290.	0.4	311
118	[29] Purification and characterization of Chlamydomonas flagellar dyneins. Methods in Enzymology, 1986, 134, 291-306.	0.4	107
119	Characterization of monoclonal antibodies against Chlamydomonas flagellar dyneins by high-resolution protein blotting.. Proceedings of the National Academy of Sciences of the United States of America, 1985, 82, 4717-4721.	3.3	116
120	Basal bodies and associated structures are not required for normal flagellar motion or phototaxis in the green alga Chlorogonium elongatum.. Journal of Cell Biology, 1985, 100, 297-309.	2.3	54
121	Flagellar waveform and rotational orientation in a Chlamydomonas mutant lacking normal striated fibers.. Journal of Cell Biology, 1984, 98, 818-824.	2.3	59
122	Submicromolar levels of calcium control the balance of beating between the two flagella in demembranated models of Chlamydomonas.. Journal of Cell Biology, 1984, 98, 97-107.	2.3	343
123	Outer doublet heterogeneity reveals structural polarity related to beat direction in Chlamydomonas flagella.. Journal of Cell Biology, 1983, 97, 902-908.	2.3	232
124	Synthesis, transport, and utilization of specific flagellar proteins during flagellar regeneration in Chlamydomonas.. Journal of Cell Biology, 1982, 93, 615-631.	2.3	78
125	Purification and polypeptide composition of dynein ATPases from chlamydomonas flagella. Cell Motility, 1982, 2, 525-547.	1.9	214
126	Functionally significant central-pair rotation in a primitive eukaryotic flagellum. Nature, 1981, 290, 708-710.	13.7	84

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127	Purification of calmodulin from Chlamydomonas: calmodulin occurs in cell bodies and flagella.. Journal of Cell Biology, 1980, 87, 764-770.	2.3	132
128	Calcium control of waveform in isolated flagellar axonemes of chlamydomonas. Journal of Cell Biology, 1980, 86, 446-455.	2.3	292
129	Chlamydomonas flagellar mutants lacking radial spokes and central tubules. Structure, composition, and function of specific axonemal components.. Journal of Cell Biology, 1978, 76, 729-747.	2.3	404
130	Tubulin requires tau for growth onto microtubule initiating sites.. Proceedings of the National Academy of Sciences of the United States of America, 1976, 73, 4070-4074.	3.3	191
131	THE SITE OF IN VIVO ASSEMBLY OF FLAGELLAR MICROTUBULES. Annals of the New York Academy of Sciences, 1975, 253, 178-191.	1.8	109
132	Directionality of Brain Microtubule Assembly In Vitro. Proceedings of the National Academy of Sciences of the United States of America, 1974, 71, 1710-1714.	3.3	95
133	CHLAMYDOMONAS FLAGELLA. Journal of Cell Biology, 1972, 54, 540-555.	2.3	122
134	CHLAMYDOMONAS FLAGELLA. Journal of Cell Biology, 1972, 54, 507-539.	2.3	500
135	Comparison of the Microtubule Proteins of Neuroblastoma Cells, Brain, and Chlamydomonas Flagella. Proceedings of the National Academy of Sciences of the United States of America, 1971, 68, 2273-2277.	3.3	99