George B Witman

List of Publications by Year
in descending order

135 papers	18,792 citations	16411 64 h-index	17055 122 g-index
167 all docs	167 docs citations	167 times ranked	10472 citing authors

#	Article	IF	Citations
1	The Chlamydomonas Genome Reveals the Evolution of Key Animal and Plant Functions. Science, 2007, 318, 245-250.	6.0	2,354
2	Intraflagellar transport. Nature Reviews Molecular Cell Biology, 2002, 3, 813-825.	16.1	1,401
3	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
4	Proteomic analysis of a eukaryotic cilium. Journal of Cell Biology, 2005, 170, 103-113.	2.3	933
5	CHLAMYDOMONAS FLAGELLA. Journal of Cell Biology, 1972, 54, 507-539.	2.3	500
6	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
7	The intraflagellar transport protein, IFT88, is essential for vertebrate photoreceptor assembly and maintenance. Journal of Cell Biology, 2002, 157, 103-114.	2.3	441
8	The DHC1b (DHC2) Isoform of Cytoplasmic Dynein Is Required for Flagellar Assembly. Journal of Cell Biology, 1999, 144, 473-481.	2.3	432
9	The vertebrate primary cilium is a sensory organelle. Current Opinion in Cell Biology, 2003, 15, 105-110.	2.6	420
10	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
11	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
12	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
13	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
14	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
15	[28] Isolation of Chlamydomonas flagella and flagellar axonemes. Methods in Enzymology, 1986, 134, 280-290.	0.4	311
16	Calcium control of waveform in isolated flagellar axonemes of chlamydomonas. Journal of Cell Biology, 1980, 86, 446-455.	2.3	292
17	Mutations in Hydin impair ciliary motility in mice. Journal of Cell Biology, 2008, 180, 633-643.	2.3	236
18	Outer doublet heterogeneity reveals structural polarity related to beat direction in Chlamydomonas flagella.. Journal of Cell Biology, 1983, 97, 902-908.	2.3	232

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19	Radial spoke proteins of Chlamydomonas flagella. Journal of Cell Science, 2006, 119, 1165-1174.	1.2	215
20	Purification and polypeptide composition of dynein ATPases from chlamydomonas flagella. Cell Motility, 1982, 2, 525-547.	1.9	214
21	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
22	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
23	Chlamydomonas phototaxis. Trends in Cell Biology, 1993, 3, 403-408.	3.6	185
24	Function and dynamics of PKD2 in Chlamydomonas reinhardtii flagella. Journal of Cell Biology, 2007, 179, 501-514.	2.3	183
25	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
26	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
27	Cytoplasmic dynein nomenclature. Journal of Cell Biology, 2005, 171, 411-413.	2.3	171
28	Cilia and Diseases. BioScience, 2014, 64, 1126-1137.	2.2	167
29	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
30	Chlamydomonas reinhardtii hydin is a central pair protein required for flagellar motility. Journal of Cell Biology, 2007, 176, 473-482.	2.3	151
31	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
32	The Chlamydomonas genome project: a decade on. Trends in Plant Science, 2014, 19, 672-680.	4.3	145
33	Rotation of the Central Pair Microtubules in Eukaryotic Flagella. Molecular Biology of the Cell, 1999, 10, 1-4.	0.9	133
34	Purification of calmodulin from Chlamydomonas: calmodulin occurs in cell bodies and flagella.. Journal of Cell Biology, 1980, 87, 764-770.	2.3	132
35	A Chlamydomonas outer arm dynein mutant with a truncated beta heavy chain. Journal of Cell Biology, 1993, 122, 653-661.	2.3	132
36	Mutational analysis of the phototransduction pathway of Chlamydomonas reinhardtii.. Journal of Cell Biology, 1995, 131, 427-440.	2.3	132

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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	Superresolution Pattern Recognition Reveals the Architectural Map of the Ciliary Transition Zone. Scientific Reports, 2015, 5, 14096.	1.6	128
39	CHLAMYDOMONAS FLAGELLA. Journal of Cell Biology, 1972, 54, 540-555.	2.3	122
40	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
41	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
42	Isolated flagellar outer arm dynein translocates brain microtubules in vitro. Nature, 1987, 330, 672-674.	13.7	116
43	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
44	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
45	THE SITE OF IN VIVO ASSEMBLY OF FLAGELLAR MICROTUBULES. Annals of the New York Academy of Sciences, 1975, 253, 178-191.	1.8	109
46	[29] Purification and characterization of Chlamydomonas flagellar dyneins. Methods in Enzymology, 1986, 134, 291-306.	0.4	107
47	A Dynein Light Intermediate Chain, D1bLIC, Is Required for Retrograde Intraflagellar Transport. Molecular Biology of the Cell, 2004, 15, 4382-4394.	0.9	106
48	The role of retrograde intraflagellar transport in flagellar assembly, maintenance, and function. Journal of Cell Biology, 2012, 199, 151-167.	2.3	103
49	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
50	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
51	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
52	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
53	IFT trains in different stages of assembly queue at the ciliary base for consecutive release into the cilium. ELife, 2017, 6, .	2.8	90
54	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

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55	Functionally significant central-pair rotation in a primitive eukaryotic flagellum. Nature, 1981, 290, 708-710.	13.7	84
56	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
57	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
58	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
59	Axonemal dyneins. Current Opinion in Cell Biology, 1992, 4, 74-79.	2.6	79
60	Synthesis, transport, and utilization of specific flagellar proteins during flagellar regeneration in Chlamydomonas.. Journal of Cell Biology, 1982, 93, 615-631.	2.3	78
61	A unified taxonomy for ciliary dyneins. Cytoskeleton, 2011, 68, 555-565.	1.0	77
62	Role of cAMP in the reactivation of demembranated ram spermatozoa. Cytoskeleton, 1994, 27, 206-218.	4.4	69
63	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
64	ptx1, a nonphototactic mutant of Chlamydomonas, lacks control of flagellar dominance.. Journal of Cell Biology, 1993, 120, 733-741.	2.3	66
65	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
66	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
67	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
68	Assembly of IFT Trains at the Ciliary Base Depends on IFT74. Current Biology, 2015, 25, 1583-1593.	1.8	64
69	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
70	Proteome of the central apparatus of a ciliary axoneme. Journal of Cell Biology, 2019, 218, 2051-2070.	2.3	62
71	Flagellar waveform and rotational orientation in a Chlamydomonas mutant lacking normal striated fibers.. Journal of Cell Biology, 1984, 98, 818-824.	2.3	59
72	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

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73	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
74	Forward and Reverse Genetic Analysis of Microtubule Motors in Chlamydomonas. Methods, 2000, 22, 285-298.	1.9	58
75	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
76	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
77	Dynein and intraflagellar transport. Experimental Cell Research, 2015, 334, 26-34.	1.2	54
78	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
79	Flagellar central pair assembly in Chlamydomonas reinhardtii. Cilia, 2013, 2, 15.	1.8	52
80	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
81	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
82	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
83	TCTEX1D2 mutations underlie Jeune asphyxiating thoracic dystrophy with impaired retrograde intraflagellar transport. Nature Communications, 2015, 6, 7074.	5.8	51
84	A microtubule-dynein tethering complex regulates the axonemal inner dyneinf(I1). Molecular Biology of the Cell, 2018, 29, 1060-1074.	0.9	51
85	Reduced tubulin polyglutamylation suppresses flagellar shortness inChlamydomonas. Molecular Biology of the Cell, 2015, 26, 2810-2822.	0.9	50
86	TIM, a targeted insertional mutagenesis method utilizing CRISPR/Cas9 in Chlamydomonas reinhardtii. PLoS ONE, 2020, 15, e0232594.	1.1	50
87	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
88	Regulation of flagellar motility by the conserved flagellar protein CG34110/Ccdc135/FAP50. Molecular Biology of the Cell, 2011, 22, 976-987.	0.9	48
89	DRC3 connects the N-DRC to dynein g to regulate flagellar waveform. Molecular Biology of the Cell, 2015, 26, 2788-2800.	0.9	48
90	Differential Light Chain Assembly Influences Outer Arm Dynein Motor Function. Molecular Biology of the Cell, 2005, 16, 5661-5674.	0.9	47

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91	Total Internal Reflection Fluorescence (TIRF) Microscopy of Chlamydomonas Flagella. Methods in Cell Biology, 2009, 93, 157-177.	0.5	43
92	Outer-arm dynein from trout spermatozoa: Substructural organization. Cytoskeleton, 1990, 16, 266-278.	4.4	42
93	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
94	Isolation of Chlamydomonas Flagella. Current Protocols in Cell Biology, 2013, 59, Unit 3.41.1-9.	2.3	42
95	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
96	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
97	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
98	Flagellar movement of intact and demembranated, reactivated ram spermatozoa. Cytoskeleton, 1987, 8, 375-391.	4.4	39
99	Introduction to Cilia and Flagella. , 1990, , 1-30.		39
100	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
101	Structural organization of the C1a-e-c supercomplex within the ciliary central apparatus. Journal of Cell Biology, 2019, 218, 4236-4251.	2.3	38
102	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
103	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
104	Diffusion rather than IFT likely provides most of the tubulin required for axonemal assembly. Journal of Cell Science, 2020, 133, .	1.2	33
105	Cell Motility: Deaf Drosophila Keep the Beat. Current Biology, 2003, 13, R796-R798.	1.8	29
106	Novel touch-induced, Ca2+-dependent phobic response in a flagellate green alga. Cytoskeleton, 1994, 29, 97-109.	4.4	25
107	Consensus nomenclature for dyneins and associated assembly factors. Journal of Cell Biology, 2022, 221, .	2.3	25
108	Chapter 40 Assay of Chlamydomonas Phototaxis. Methods in Cell Biology, 1995, 47, 281-287.	0.5	20

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109	Functional interaction betweenChlamydomonas outer arm dynein subunits: The Î³ subunit suppresses the ATPase activity of the Î±Î² dimer. , 1997, 37, 338-345.		19
110	The unity and diversity of the ciliary central apparatus. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190164.	1.8	18
111	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
112	An insertional mutant ofChlamydomonas reinhardtii with defective microtubule positioning. , 1999, 44, 143-154.		16
113	High-Speed Digital Imaging of Ependymal Cilia in the Murine Brain. Methods in Cell Biology, 2009, 91, 255-264.	0.5	13
114	Chlamydomonas FAP70 is a component of the previously uncharacterized ciliary central apparatus projection C2a. Journal of Cell Science, 2021, 134, .	1.2	13
115	[34] Demembranation and reactivation of mammalian spermatozoa from golden hamster and ram. Methods in Enzymology, 1991, 196, 417-428.	0.4	11
116	Reactivation of demembranated, cytosol-free ram spermatozoa. Cytoskeleton, 1993, 24, 264-273.	4.4	10
117	[18] Purification and characterization of Salmo gairdneri outer arm dynein. Methods in Enzymology, 1991, 196, 201-222.	0.4	8
118	Chapter 6 Isolation of Ram Sperm Flagella. Methods in Cell Biology, 1995, 47, 31-36.	0.5	8
119	The Chlamydomonas Flagellum as a Model for Human Ciliary Disease. , 2009, , 445-478.		6
120	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
121	Chapter 30 Reactivation of Chlamydomonas Cell Models. Methods in Cell Biology, 1995, 47, 207-210.	0.5	4
122	Flipping a Phosphate Switch on Kinesin-II to Turn IFT Around. Developmental Cell, 2014, 30, 492-493.	3.1	3
123	Structural organization of the C1b projection within the ciliary central apparatus. Journal of Cell Science, 2021, 134, .	1.2	3
124	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
125	Dynein and Intraflagellar Transport. , 2012, , 394-421.		2
126	Dynein and intraflagellar transport. , 2018, , 386-432.		2

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127	Chapter 36 Preparation and Reactivation of Demembranated, Cytosol-Free Ram Spermatozoa. Methods in Cell Biology, 1995, 47, 251-255.	0.5	1
128	Photoreceptors and Intraflagellar Transport. , 2004, , 109-132.		1
129	Amoeboid Movement, Cilia, and Flagella. , 2001, , 959-983.		0
130	Proteomics of Motile & Primary Cilia: Clues to Human Disease. FASEB Journal, 2006, 20, A437.	0.2	0
131	Characterization of Novel BBS Mutants in Chlamydomonas reinhardtii. FASEB Journal, 2010, 24, lb141.	0.2	0
132	TIM, a targeted insertional mutagenesis method utilizing CRISPR/Cas9 in Chlamydomonas reinhardtii. , 2020, 15, e0232594.		0
133	TIM, a targeted insertional mutagenesis method utilizing CRISPR/Cas9 in Chlamydomonas reinhardtii. , 2020, 15, e0232594.		0
134	TIM, a targeted insertional mutagenesis method utilizing CRISPR/Cas9 in Chlamydomonas reinhardtii. , 2020, 15, e0232594.		0
135	TIM, a targeted insertional mutagenesis method utilizing CRISPR/Cas9 in Chlamydomonas reinhardtii. , 2020, 15, e0232594.		0