Michel R Leroux

List of Publications by Year
in descending order

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83 papers	11,409 citations	36303 51 h-index	56724 83 g-index
86 all docs	86 docs citations	86 times ranked	9578 citing authors

#	Article	IF	Citations
1	Genes and molecular pathways underpinning ciliopathies. Nature Reviews Molecular Cell Biology, 2017, 18, 533-547.	37.0	1,135
2	Comparative Genomics Identifies a Flagellar and Basal Body Proteome that Includes the BBS5 Human Disease Gene. Cell, 2004, 117, 541-552.	28.9	721
3	Basal body dysfunction is a likely cause of pleiotropic Bardetâ€“Biedl syndrome. Nature, 2003, 425, 628-633.	27.8	607
4	Disruption of Bardet-Biedl syndrome ciliary proteins perturbs planar cell polarity in vertebrates. Nature Genetics, 2005, 37, 1135-1140.	21.4	536
5	The centrosomal protein nephrocystin-6 is mutated in Joubert syndrome and activates transcription factor ATF4. Nature Genetics, 2006, 38, 674-681.	21.4	535
6	MKS and NPHP modules cooperate to establish basal body/transition zone membrane associations and ciliary gate function during ciliogenesis. Journal of Cell Biology, 2011, 192, 1023-1041.	5.2	423
7	The base of the cilium: roles for transition fibres and the transition zone in ciliary formation, maintenance and compartmentalization. EMBO Reports, 2012, 13, 608-618.	4.5	420
8	The Bardet-Biedl protein BBS4 targets cargo to the pericentriolar region and is required for microtubule anchoring and cell cycle progression. Nature Genetics, 2004, 36, 462-470.	21.4	372
9	Functional coordination of intraflagellar transport motors. Nature, 2005, 436, 583-587.	27.8	355
10	Loss of C. elegans BBS-7 and BBS-8 protein function results in cilia defects and compromised intraflagellar transport. Genes and Development, 2004, 18, 1630-1642.	5.9	318
11	Mutations in a member of the Ras superfamily of small GTP-binding proteins causes Bardet-Biedl syndrome. Nature Genetics, 2004, 36, 989-993.	21.4	313
12	Structure of the Molecular Chaperone Prefoldin. Cell, 2000, 103, 621-632.	28.9	298
13	Functional Genomics of the Cilium, a Sensory Organelle. Current Biology, 2005, 15, 935-941.	3.9	245
14	Defects in the IFT-B Component IFT172 Cause Jeune and Mainzer-Saldino Syndromes in Humans. American Journal of Human Genetics, 2013, 93, 915-925.	6.2	196
15	Heterozygous mutations in BBS1, BBS2 and BBS6 have a potential epistatic effect on Bardet-Biedl patients with two mutations at a second BBS locus. Human Molecular Genetics, 2003, 12, 1651-1659.	2.9	194
16	Piecing together a ciliome. Trends in Genetics, 2006, 22, 491-500.	6.7	191
17	Structure-Function Studies on Small Heat Shock Protein Oligomeric Assembly and Interaction with Unfolded Polypeptides. Journal of Biological Chemistry, 1997, 272, 24646-24656.	3.4	190
18	The interaction network of the chaperonin CCT. EMBO Journal, 2008, 27, 1827-1839.	7.8	182

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19	The roles of evolutionarily conserved functional modules in cilia-related trafficking. Nature Cell Biology, 2013, 15, 1387-1397.	10.3	180
20	Mechanism of transport of IFT particles in C. elegans cilia by the concerted action of kinesin-II and OSM-3 motors. Journal of Cell Biology, 2006, 174, 1035-1045.	5.2	178
21	TMEM237 Is Mutated in Individuals with a Joubert Syndrome Related Disorder and Expands the Role of the TMEM Family at the Ciliary Transition Zone. American Journal of Human Genetics, 2011, 89, 713-730.	6.2	178
22	Analysis of xbx genes in C. elegans. Development (Cambridge), 2005, 132, 1923-1934.	2.5	175
23	MKKS/BBS6, a divergent chaperonin-like protein linked to the obesity disorder Bardet-Biedl syndrome, is a novel centrosomal component required for cytokinesis. Journal of Cell Science, 2005, 118, 1007-1020.	2.0	166
24	Intraflagellar transport and the generation of dynamic, structurally and functionally diverse cilia. Trends in Cell Biology, 2009, 19, 306-316.	7.9	146
25	Sensory Ciliogenesis in Caenorhabditis elegans: Assignment of IFT Components into Distinct Modules Based on Transport and Phenotypic Profiles. Molecular Biology of the Cell, 2007, 18, 1554-1569.	2.1	134
26	The sensory cilia of Caenorhabditis elegans_Revised. WormBook, 2007, , 1-22.	5.3	131
27	Protein folding: Versatility of the cytosolic chaperonin TRiC/CCT. Current Biology, 2000, 10, R260-R264.	3.9	117
28	Formation of the transition zone by Mks5/Rpgrip1L establishes a ciliary zone of exclusion (<scp>CIZE</scp>) that compartmentalises ciliary signalling proteins and controls <scp>PIP</scp>₂ ciliary abundance. EMBO Journal, 2015, 34, 2537-2556.	7.8	115
29	CiliaCarta: An integrated and validated compendium of ciliary genes. PLoS ONE, 2019, 14, e0216705.	2.5	104
30	Bardet-Biedl Syndrome-associated Small GTPase ARL6 (BBS3) Functions at or near the Ciliary Gate and Modulates Wnt Signaling. Journal of Biological Chemistry, 2010, 285, 16218-16230.	3.4	100
31	MKS5 and CEP290 Dependent Assembly Pathway of the Ciliary Transition Zone. PLoS Biology, 2016, 14, e1002416.	5.6	98
32	TMEM231, mutated in orofaciodigital and Meckel syndromes, organizes the ciliary transition zone. Journal of Cell Biology, 2015, 209, 129-142.	5.2	95
33	The WD Repeat-containing Protein IFTA-1 Is Required for Retrograde Intraflagellar Transport. Molecular Biology of the Cell, 2006, 17, 5053-5062.	2.1	94
34	Quality control of cytoskeletal proteins and human disease. Trends in Biochemical Sciences, 2010, 35, 288-297.	7.5	92
35	Unique Structural Features of a Novel Class of Small Heat Shock Proteins. Journal of Biological Chemistry, 1997, 272, 12847-12853.	3.4	88
36	Identification of ciliary and ciliopathy genes in Caenorhabditis elegans through comparative genomics. Genome Biology, 2006, 7, R126.	9.6	86

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37	Fifteen years of research on oralâ€“facialâ€“digital syndromes: from 1 to 16 causal genes. Journal of Medical Genetics, 2017, 54, 371-380.	3.2	85
38	Caenorhabditis eleganssmall heat-shock proteins Hsp12.2 and Hsp12.3 form tetramers and have no chaperone-like activity. FEBS Letters, 1998, 433, 228-232.	2.8	72
39	Loss of Bardetâ€“Biedl syndrome proteins causes defects in peripheral sensory innervation and function. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 17524-17529.	7.1	71
40	Functional interactions between the ciliopathy-associated Meckel syndrome 1 (MKS1) protein and two novel MKS1-related (MKSR) proteins. Journal of Cell Science, 2009, 122, 611-624.	2.0	71
41	Conserved Genetic Interactions between Ciliopathy Complexes Cooperatively Support Ciliogenesis and Ciliary Signaling. PLoS Genetics, 2015, 11, e1005627.	3.5	71
42	Gates for soluble and membrane proteins, and two trafficking systems (IFT and LIFT), establish a dynamic ciliary signaling compartment. Current Opinion in Cell Biology, 2017, 47, 83-91.	5.4	70
43	PhLP3 Modulates CCT-mediated Actin and Tubulin Folding via Ternary Complexes with Substrates. Journal of Biological Chemistry, 2006, 281, 7012-7021.	3.4	69
44	Caenorhabditis elegans DYF-2, an Orthologue of Human WDR19, Is a Component of the Intraflagellar Transport Machinery in Sensory Cilia. Molecular Biology of the Cell, 2006, 17, 4801-4811.	2.1	68
45	Shared and Distinct Mechanisms of Compartmentalized and Cytosolic Ciliogenesis. Current Biology, 2015, 25, R1143-R1150.	3.9	68
46	Efficient chaperone-mediated tubulin biogenesis is essential for cell division and cell migration in C. elegans. Developmental Biology, 2008, 313, 320-334.	2.0	66
47	cAMP and cGMP signaling: sensory systems with prokaryotic roots adopted by eukaryotic cilia. Trends in Cell Biology, 2010, 20, 435-444.	7.9	65
48	Transcriptional profiling of C. elegans DAF-19 uncovers a ciliary base-associated protein and a CDK/CCRK/LF2p-related kinase required for intraflagellar transport. Developmental Biology, 2011, 357, 235-247.	2.0	65
49	Convergent evolution of clamp-like binding sites in diverse chaperones. Nature Structural and Molecular Biology, 2006, 13, 865-870.	8.2	62
50	A truncating mutation of Alms1 reduces the number of hypothalamic neuronal cilia in obese mice. Developmental Neurobiology, 2013, 73, 1-13.	3.0	60
51	Molecular clamp mechanism of substrate binding by hydrophobic coiled-coil residues of the archaeal chaperone prefoldin. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 4367-4372.	7.1	57
52	Whole-Organism Developmental Expression Profiling Identifies RAB-28 as a Novel Ciliary GTPase Associated with the BBSome and Intraflagellar Transport. PLoS Genetics, 2016, 12, e1006469.	3.5	56
53	Divergent Substrate-Binding Mechanisms Reveal an Evolutionary Specialization of Eukaryotic Prefoldin Compared to Its Archaeal Counterpart. Structure, 2007, 15, 101-110.	3.3	55
54	Kinetics and Binding Sites for Interaction of the Prefoldin with a Group II Chaperonin. Journal of Biological Chemistry, 2004, 279, 31788-31795.	3.4	53

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55	Functional Interaction between Phosducin-like Protein 2 and Cytosolic Chaperonin Is Essential for Cytoskeletal Protein Function and Cell Cycle Progression. Molecular Biology of the Cell, 2007, 18, 2336-2345.	2.1	50
56	Striated Rootlet and Nonfilamentous Forms of Rootletin Maintain Ciliary Function. Current Biology, 2013, 23, 2016-2022.	3.9	50
57	Biallelic Mutations in LRRC56, Encoding a Protein Associated with Intraflagellar Transport, Cause Mucociliary Clearance and Laterality Defects. American Journal of Human Genetics, 2018, 103, 727-739.	6.2	49
58	An Essential Role for DYF-11/MIP-T3 in Assembling Functional Intraflagellar Transport Complexes. PLoS Genetics, 2008, 4, e1000044.	3.5	48
59	CDKL Family Kinases Have Evolved Distinct Structural Features and Ciliary Function. Cell Reports, 2018, 22, 885-894.	6.4	48
60	Taking Vesicular Transport to the Cilium. Cell, 2007, 129, 1041-1043.	28.9	43
61	Ciliogenesis in Caenorhabditis elegans requires genetic interactions between ciliary middle segment localized NPHP-2 (inversin) and transition zone-associated proteins. Journal of Cell Science, 2012, 125, 2592-603.	2.0	40
62	Getting a grip on nonâ€native proteins. EMBO Reports, 2003, 4, 565-570.	4.5	39
63	Ciliopathy proteins establish a bipartite signaling compartment in a C. elegans thermosensory neuron. Journal of Cell Science, 2014, 127, 5317-30.	2.0	37
64	Role for intraflagellar transport in building a functional transition zone. EMBO Reports, 2018, 19, .	4.5	35
65	The Canadian Rare Diseases Models and Mechanisms (RDMM) Network: Connecting Understudied Genes to Model Organisms. American Journal of Human Genetics, 2020, 106, 143-152.	6.2	30
66	Ciliary Tip Signaling Compartment Is Formed and Maintained by Intraflagellar Transport. Current Biology, 2020, 30, 4299-4306.e5.	3.9	25
67	Accelerating Gene Discovery by Phenotyping Whole-Genome Sequenced Multi-mutation Strains and Using the Sequence Kernel Association Test (SKAT). PLoS Genetics, 2016, 12, e1006235.	3.5	22
68	Localization of a Guanylyl Cyclase to Chemosensory Cilia Requires the Novel Ciliary MYND Domain Protein DAF-25. PLoS Genetics, 2010, 6, e1001199.	3.5	21
69	Mutations in a Guanylate Cyclase GCY-35/GCY-36 Modify Bardet-Biedl Syndromeâ€“Associated Phenotypes in Caenorhabditis elegans. PLoS Genetics, 2011, 7, e1002335.	3.5	19
70	Protein folding and molecular chaperones in Archaea. Advances in Applied Microbiology, 2001, 50, 219-277.	2.4	17
71	Subunit Characterization of theCaenorhabditis elegansChaperonin Containing TCP-1 and Expression Pattern of the Gene Encoding CCT-1. Biochemical and Biophysical Research Communications, 1997, 241, 687-692.	2.1	16
72	Sensorium: The Original Raison D'etre of the Motile Cilium?. Journal of Molecular Cell Biology, 2010, 2, 65-67.	3.3	16

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73	Identification of 526 Conserved Metazoan Genetic Innovations Exposes a New Role for Cofactor E-like in Neuronal Microtubule Homeostasis. PLoS Genetics, 2013, 9, e1003804.	3.5	16
74	PACRG, a protein linked to ciliary motility, mediates cellular signaling. Molecular Biology of the Cell, 2016, 27, 2133-2144.	2.1	16
75	UBR7 functions with UBR5 in the Notch signaling pathway and is involved in a neurodevelopmental syndrome with epilepsy, ptosis, and hypothyroidism. American Journal of Human Genetics, 2021, 108, 134-147.	6.2	15
76	Molecular analysis of Caenorhabditis elegans tcp-1, a gene encoding a chaperonin protein. Gene, 1995, 156, 241-246.	2.2	13
77	Functional Genomics of Intraflagellar Transport-Associated Proteins in C. elegans. Methods in Cell Biology, 2009, 93, 267-304.	1.1	12
78	CDKL kinase regulates the length of the ciliary proximal segment. Current Biology, 2021, 31, 2359-2373.e7.	3.9	11
79	EFHC1, implicated in juvenile myoclonic epilepsy, functions at the cilium and synapse to modulate dopamine signaling. ELife, 2019, 8, .	6.0	10
80	Tubulin acetyltransferase discovered: Ciliary role in the ancestral eukaryote expanded to neurons in metazoans. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21238-21239.	7.1	7
81	IFT trains overcome an NPHP module barrier at the transition zone. Journal of Cell Biology, 2022, 221, .	5.2	4
82	Signaling Proteins that Regulate NaCL Chemotaxis Responses Modulate Longevity in C. elegans. Annals of the New York Academy of Sciences, 2009, 1170, 682-687.	3.8	2
83	Ciliopathy proteins establish a bipartite signaling compartment in a C. elegans thermosensory neuron. Development (Cambridge), 2015, 142, e0107-e0107.	2.5	1