Guy Lenaers

List of Publications by Year
in descending order

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123 papers	8,624 citations	81900 39 h-index	46799 89 g-index
132 all docs	132 docs citations	132 times ranked	7995 citing authors

#	Article	IF	Citations
1	Nuclear gene OPA1, encoding a mitochondrial dynamin-related protein, is mutated in dominant optic atrophy. Nature Genetics, 2000, 26, 207-210.	21.4	1,275
2	Loss of OPA1 Perturbates the Mitochondrial Inner Membrane Structure and Integrity, Leading to Cytochrome c Release and Apoptosis. Journal of Biological Chemistry, 2003, 278, 7743-7746.	3.4	987
3	OPA1 mutations induce mitochondrial DNA instability and optic atrophy 'plus' phenotypes. Brain, 2008, 131, 338-351.	7.6	454
4	Multi-system neurological disease is common in patients with OPA1 mutations. Brain, 2010, 133, 771-786.	7.6	385
5	The human dynamin-related protein OPA1 is anchored to the mitochondrial inner membrane facing the inter-membrane space. FEBS Letters, 2002, 523, 171-176.	2.8	348
6	Mutation spectrum and splicing variants in the OPA1 gene. Human Genetics, 2001, 109, 584-591.	3.8	327
7	Dominant optic atrophy. Orphanet Journal of Rare Diseases, 2012, 7, 46.	2.7	213
8	OPA1 links human mitochondrial genome maintenance to mtDNA replication and distribution. Genome Research, 2011, 21, 12-20.	5.5	207
9	TRPV4 channels mediate the infrared laser-evoked response in sensory neurons. Journal of Neurophysiology, 2012, 107, 3227-3234.	1.8	199
10	Mitochondrial dynamics and disease, OPA1. Biochimica Et Biophysica Acta - Molecular Cell Research, 2006, 1763, 500-509.	4.1	195
11	OPA1 alternate splicing uncouples an evolutionary conserved function in mitochondrial fusion from a vertebrate restricted function in apoptosis. Cell Death and Differentiation, 2007, 14, 682-692.	11.2	190
12	OPA1 (Kjer Type) Dominant Optic Atrophy: A Novel Mitochondrial Disease. Molecular Genetics and Metabolism, 2002, 75, 97-107.	1.1	171
13	OPA1 Isoforms in the Hierarchical Organization of Mitochondrial Functions. Cell Reports, 2017, 19, 2557-2571.	6.4	158
14	OPA1 R445H mutation in optic atrophy associated with sensorineural deafness. Annals of Neurology, 2005, 58, 958-963.	5.3	155
15	OPA3 gene mutations responsible for autosomal dominant optic atrophy and cataract. Journal of Medical Genetics, 2004, 41, e110-e110.	3.2	136
16	Mitochondrial fusion is frequent in skeletal muscle and supports excitationâ€“contraction coupling. Journal of Cell Biology, 2014, 205, 179-195.	5.2	133
17	Effects of OPA1 mutations on mitochondrial morphology and apoptosis: Relevance to ADOA pathogenesis. Journal of Cellular Physiology, 2007, 211, 423-430.	4.1	128
18	OPA1-associated disorders: Phenotypes and pathophysiology. International Journal of Biochemistry and Cell Biology, 2009, 41, 1855-1865.	2.8	122

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19	Exploring the pharmacological properties of insect nicotinic acetylcholine receptors. Trends in Pharmacological Sciences, 2007, 28, 14-22.	8.7	119
20	A molecular phylogeny of dinoflagellate protists (Pyrrhophyta) inferred from the sequence of 24S rRNA divergent domains D1 and D8. Journal of Molecular Evolution, 1991, 32, 53-63.	1.8	114
21	Mutations in DNM1L, as in OPA1, result in dominant optic atrophy despite opposite effects on mitochondrial fusion and fission. Brain, 2017, 140, 2586-2596.	7.6	100
22	The human OPA1delTTAG mutation induces premature age-related systemic neurodegeneration in mouse. Brain, 2012, 135, 3599-3613.	7.6	94
23	OPA1 cleavage depends on decreased mitochondrial ATP level and bivalent metals. Experimental Cell Research, 2007, 313, 3800-3808.	2.6	90
24	Biallelic Variants in UBA5 Reveal that Disruption of the UFM1 Cascade Can Result in Early-Onset Encephalopathy. American Journal of Human Genetics, 2016, 99, 695-703.	6.2	87
25	OPA1 functions in mitochondria and dysfunctions in optic nerve. International Journal of Biochemistry and Cell Biology, 2009, 41, 1866-1874.	2.8	72
26	Expression of the Opa1 Mitochondrial Protein in Retinal Ganglion Cells: Its Downregulation Causes Aggregation of the Mitochondrial Network. , 2005, 46, 4288.		68
27	Early-onset Behr syndrome due to compound heterozygous mutations in OPA1. Brain, 2014, 137, e301-e301.	7.6	62
28	Nicotinamide Deficiency in Primary Open-Angle Glaucoma. , 2019, 60, 2509.		61
29	Current mechanistic insights into the CCCP-induced cell survival response. Biochemical Pharmacology, 2018, 148, 100-110.	4.4	55
30	Recessive Mutations in RTN4IP1 Cause Isolated and Syndromic Optic Neuropathies. American Journal of Human Genetics, 2015, 97, 754-760.	6.2	54
31	A novel mutation of AFG3L2 might cause dominant optic atrophy in patients with mild intellectual disability. Frontiers in Genetics, 2015, 6, 311.	2.3	52
32	OPA1 gene therapy prevents retinal ganglion cell loss in a Dominant Optic Atrophy mouse model. Scientific Reports, 2018, 8, 2468.	3.3	52
33	A Metabolomics Profiling of Glaucoma Points to Mitochondrial Dysfunction, Senescence, and Polyamines Deficiency. , 2018, 59, 4355.		51
34	Increase in Cardiac Ischemia-Reperfusion Injuries in Opa1+/- Mouse Model. PLoS ONE, 2016, 11, e0164066.	2.5	51
35	OPA1 (dys)functions. Seminars in Cell and Developmental Biology, 2010, 21, 593-598.	5.0	50
36	Dominant optic atrophy: Culprit mitochondria in the optic nerve. Progress in Retinal and Eye Research, 2021, 83, 100935.	15.5	48

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37	Lactic Acidosis Together with GM-CSF and M-CSF Induces Human Macrophages toward an Inflammatory Protumor Phenotype. Cancer Immunology Research, 2020, 8, 383-395.	3.4	48
38	Why Mitochondria Must Fuse to Maintain Their Genome Integrity. Antioxidants and Redox Signaling, 2013, 19, 379-388.	5.4	47
39	WFS1 in Optic Neuropathies: Mutation Findings in Nonsyndromic Optic Atrophy and Assessment of Clinical Severity. Ophthalmology, 2016, 123, 1989-1998.	5.2	46
40	The metabolomic signature of Leberâ€™s hereditary optic neuropathy reveals endoplasmic reticulum stress. Brain, 2016, 139, 2864-2876.	7.6	45
41	OPA1-related disorders: Diversity of clinical expression, modes of inheritance and pathophysiology. Neurobiology of Disease, 2016, 90, 20-26.	4.4	45
42	OPA1: How much do we know to approach therapy?. Pharmacological Research, 2018, 131, 199-210.	7.1	44
43	Dominant mutations in mtDNA maintenance gene SSBP1 cause optic atrophy and foveopathy. Journal of Clinical Investigation, 2019, 130, 143-156.	8.2	44
44	A Nontargeted UHPLC-HRMS Metabolomics Pipeline for Metabolite Identification: Application to Cardiac Remote Ischemic Preconditioning. Analytical Chemistry, 2017, 89, 2138-2146.	6.5	43
45	Mutation in NDUFA13/GRIM19 leads to early onset hypotonia, dyskinesia and sensorial deficiencies, and mitochondrial complex I instability. Human Molecular Genetics, 2015, 24, 3948-3955.	2.9	42
46	OPA1: 516 unique variants and 831 patients registered in an updated centralized Variome database. Orphanet Journal of Rare Diseases, 2019, 14, 214.	2.7	39
47	eKLIPse: a sensitive tool for the detection and quantification of mitochondrial DNA deletions from next-generation sequencing data. Genetics in Medicine, 2019, 21, 1407-1416.	2.4	38
48	Homozygous Deletion Related to Alu Repeats inRLBP1Causes Retinitis Punctata Albescens. , 2006, 47, 4719.		37
49	Reversible optic neuropathy with OPA1 exon 5b mutation. Annals of Neurology, 2008, 63, 667-671.	5.3	36
50	Sensorineural hearing loss in OPA1-linked disorders. Brain, 2013, 136, e236-e236.	7.6	36
51	Remote Ischemic Conditioning Influences Mitochondrial Dynamics. Shock, 2016, 45, 192-197.	2.1	35
52	Mutations in the m-AAA proteases AFG3L2 and SPG7 are causing isolated dominant optic atrophy. Neurology: Genetics, 2020, 6, e428.	1.9	31
53	Impairment of Visual Function and Retinal ER Stress Activation in Wfs1-Deficient Mice. PLoS ONE, 2014, 9, e97222.	2.5	31
54	Autophagy controls the pathogenicity of <scp>OPA</scp>1 mutations in dominant optic atrophy. Journal of Cellular and Molecular Medicine, 2017, 21, 2284-2297.	3.6	30

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55	Loss of MTX2 causes mandibuloacral dysplasia and links mitochondrial dysfunction to altered nuclear morphology. Nature Communications, 2020, 11, 4589.	12.8	30
56	Characterization of Ca²⁺Signalling in Postnatal Mouse Retinal Ganglion Cells: Involvement of OPA1 in Ca²⁺Clearance. Ophthalmic Genetics, 2010, 31, 53-65.	1.2	29
57	Clinical utility gene card for: inherited optic neuropathies including next-generation sequencing-based approaches. European Journal of Human Genetics, 2019, 27, 494-502.	2.8	29
58	AP4 deficiency. Neurology: Genetics, 2018, 4, e217.	1.9	28
59	Neurologic Phenotypes Associated With Mutations in RTN4IP1 (OPA10) in Children and Young Adults. JAMA Neurology, 2018, 75, 105.	9.0	26
60	A Data Mining Metabolomics Exploration of Glaucoma. Metabolites, 2020, 10, 49.	2.9	25
61	Optic neuropathy, cardiomyopathy, cognitive disability in patients with a homozygous mutation in the nuclear MTO1 and a mitochondrial MTâ€¶F variant. American Journal of Medical Genetics, Part A, 2015, 167, 2366-2374.	1.2	22
62	Recessive TBC1D24 Mutations Are Frequent in Moroccan Non-Syndromic Hearing Loss Pedigrees. PLoS ONE, 2015, 10, e0138072.	2.5	22
63	Targeted Metabolomics Reveals Early Dominant Optic Atrophy Signature in Optic Nerves of Opa1^{delTTAG/+} Mice. , 2017, 58, 812.		22
64	A Plasma Metabolomic Profiling of Exudative Age-Related Macular Degeneration Showing Carnosine and Mitochondrial Deficiencies. Journal of Clinical Medicine, 2020, 9, 631.	2.4	22
65	A novel mutation in the TMC1 gene causes non-syndromic hearing loss in a Moroccan family.. Gene, 2015, 574, 28-33.	2.2	21
66	A Plasma Metabolomic Signature Involving Purine Metabolism in Human Optic Atrophy 1 (OPA1)-Related Disorders. , 2018, 59, 185.		21
67	The Metabolomic Bioenergetic Signature of Opa1-Disrupted Mouse Embryonic Fibroblasts Highlights Aspartate Deficiency. Scientific Reports, 2018, 8, 11528.	3.3	20
68	In vivo time-lapse imaging of mitochondria in healthy and diseased peripheral myelin sheath. Mitochondrion, 2015, 23, 32-41.	3.4	18
69	Homozygous mutations in PJVK and MYO15A genes associated with non-syndromic hearing loss in Moroccan families. International Journal of Pediatric Otorhinolaryngology, 2017, 101, 25-29.	1.0	18
70	A Plasma Metabolomic Signature of the Exfoliation Syndrome Involves Amino Acids, Acylcarnitines, and Polyamines. , 2018, 59, 1025.		18
71	Neuroradiological findings expand the phenotype of OPA1-related mitochondrial dysfunction. Journal of the Neurological Sciences, 2015, 349, 154-160.	0.6	17
72	Increased steroidogenesis promotes early-onset and severe vision loss in females withOPA1dominant optic atrophy. Human Molecular Genetics, 2016, 25, ddw117.	2.9	17

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73	Metabolomics hallmarks OPA1 variants correlating with their in vitro phenotype and predicting clinical severity. Human Molecular Genetics, 2020, 29, 1319-1329.	2.9	17
74	Molecular analysis of the TMPRSS3 gene in Moroccan families with non-syndromic hearing loss. Biochemical and Biophysical Research Communications, 2012, 419, 643-647.	2.1	16
75	DominantACO2mutations are a frequent cause of isolated optic atrophy. Brain Communications, 2021, 3, fcab063.	3.3	16
76	Gene structure and chromosomal localization of mouse Opa1 : its exclusion from the Bst locus. BMC Genetics, 2003, 4, 8.	2.7	14
77	A plasma metabolomic signature of Leber hereditary optic neuropathy showing taurine and nicotinamide deficiencies. Human Molecular Genetics, 2021, 30, 21-29.	2.9	14
78	Blocking mitochondrial calcium release in Schwann cells prevents demyelinating neuropathies. Journal of Clinical Investigation, 2016, 126, 1023-1038.	8.2	14
79	Mediterranean Founder Mutation Database (MFMD): Taking Advantage from Founder Mutations in Genetics Diagnosis, Genetic Diversity and Migration History of the Mediterranean Population. Human Mutation, 2015, 36, E2441-E2453.	2.5	13
80	A dominant mutation inMAPKAPK3, an actor of p38 signaling pathway, causes a new retinal dystrophy involving Bruch's membrane and retinal pigment epithelium. Human Molecular Genetics, 2016, 25, 916-926.	2.9	13
81	Warburg-like effect is a hallmark of complex I assembly defects. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2019, 1865, 2475-2489.	3.8	13
82	Pathogenic NR2F1 variants cause a developmental ocular phenotype recapitulated in a mutant mouse model. Brain Communications, 2021, 3, fcab162.	3.3	13
83	Dominant mutations in MIEF1 affect mitochondrial dynamics and cause a singular late onset optic neuropathy. Molecular Neurodegeneration, 2021, 16, 12.	10.8	13
84	What similarity between human and fission yeast proteins is required for orthology?. Yeast, 2002, 19, 1125-1126.	1.7	12
85	Next generation sequencing in family with MNGIE syndrome associated to optic atrophy: Novel homozygous POLG mutation in the C-terminal sub-domain leading to mtDNA depletion. Clinica Chimica Acta, 2019, 488, 104-110.	1.1	12
86	Use of Next-Generation Sequencing for the Molecular Diagnosis of 1,102 Patients With a Autosomal Optic Neuropathy. Frontiers in Neurology, 2021, 12, 602979.	2.4	12
87	NR2F1database: 112 variants and 84 patients support refining the clinical synopsis of Boschâ€“Boonstraâ€“Schaaf optic atrophy syndrome. Human Mutation, 2022, 43, 128-142.	2.5	12
88	The Long Non-Coding RNA SAMMSON Is a Regulator of Chemosensitivity and Metabolic Orientation in MCF-7 Doxorubicin-Resistant Breast Cancer Cells. Biology, 2021, 10, 1156.	2.8	12
89	Analysis of CLDN14 gene in deaf Moroccan patients with non-syndromic hearing loss. Gene, 2013, 523, 103-105.	2.2	11
90	Molecular phylogeny of some polychaete annelids: An initial approach to the Atlantic-Mediterranean speciation problem. Journal of Molecular Evolution, 1992, 35, 429-35.	1.8	10

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91	Increased mitochondrial fusion in a autosomal recessive CMT2A family with mitochondrial GTPase mitofusin 2 mutations. Journal of the Peripheral Nervous System, 2016, 21, 365-369.	3.1	10
92	Novel compound heterozygous mutations in the GPR98 (USH2C) gene identified by whole exome sequencing in a Moroccan deaf family. Molecular Biology Reports, 2017, 44, 429-434.	2.3	10
93	Secondary coenzyme Q deficiency in neurological disorders. Free Radical Biology and Medicine, 2021, 165, 203-218.	2.9	10
94	Altered Mitochondrial Opa1-Related Fusion in Mouse Promotes Endothelial Cell Dysfunction and Atherosclerosis. Antioxidants, 2022, 11, 1078.	5.1	10
95	Cataract as a Phenotypic Marker for a Mutation in ^{WFS1}, the Wolfram Syndrome Gene. European Journal of Ophthalmology, 2012, 22, 254-258.	1.3	9
96	Lipidomics Reveals Triacylglycerol Accumulation Due to Impaired Fatty Acid Flux in Opa1-Disrupted Fibroblasts. Journal of Proteome Research, 2019, 18, 2779-2790.	3.7	9
97	A homozygous MPZL2 deletion is associated with non syndromic hearing loss in a moroccan family. International Journal of Pediatric Otorhinolaryngology, 2021, 140, 110481.	1.0	8
98	Tear metabolomics highlights new potential biomarkers for differentiating between SjÃ¶gren's syndrome and other causes of dry eye. Ocular Surface, 2021, 22, 110-116.	4.4	8
99	Novel compound heterozygous MYO7A mutations in Moroccan families with autosomal recessive non-syndromic hearing loss. PLoS ONE, 2017, 12, e0176516.	2.5	8
100	The Metabolomic Signature of Opa1 Deficiency in Rat Primary Cortical Neurons Shows Aspartate/Glutamate Depletion and Phospholipids Remodeling. Scientific Reports, 2019, 9, 6107.	3.3	7
101	Expanding the FDXR-Associated Disease Phenotype: Retinal Dystrophy Is a Recurrent Ocular Feature. , 2021, 62, 2.		7
102	Characterization of SSBP1-related optic atrophy and foveopathy. Scientific Reports, 2021, 11, 18703.	3.3	6
103	Clinical and genetic spectrums of 413 North African families with inherited retinal dystrophies and optic neuropathies. Orphanet Journal of Rare Diseases, 2022, 17, 197.	2.7	6
104	Reply: The expanding neurological phenotype of DNM1L-related disorders. Brain, 2018, 141, e29-e29.	7.6	5
105	Dysfunctional T Cell Mitochondria Lead to Premature Aging. Trends in Molecular Medicine, 2020, 26, 799-800.	6.7	5
106	A RODâ€“CONE DYSTROPHY IS SYSTEMATICALLY ASSOCIATED TO THE RTN4IP1 RECESSIVE OPTIC ATROPHY. Retina, 2021, 41, 1771-1779.	1.7	5
107	Diagnostic and Therapeutic Perspectives Associated to Cobalamin-Dependent Metabolism and Transcobalaminsâ€™ Synthesis in Solid Cancers. Nutrients, 2022, 14, 2058.	4.1	5
108	Microcebus murinus retina: A new model to assess prion-related neurotoxicity in primates. Neurobiology of Disease, 2010, 39, 211-220.	4.4	4

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109	Martinique Crinkled Retinal Pigment Epitheliopathy. Ophthalmology, 2016, 123, 2196-2204.	5.2	4
110	Cyclin B (p56cdc13) localization in the yeast Schizosaccharomyces pombe: An ultrastructural and immunocytochemical study. Biology of the Cell, 1996, 86, 1-10.	2.0	4
111	Genetic and molecular analysis of the CLDN14 gene in Moroccan family with non-syndromic hearing loss. Indian Journal of Human Genetics, 2013, 19, 331.	0.7	3
112	ACO2 clinicobiological dataset with extensive phenotype ontology annotation. Scientific Data, 2021, 8, 205.	5.3	2
113	Identification ofrpaP1-5andrpaP2-6genes encoding two additional variants of the 60S acidic ribosomal proteins ofSchizosaccharomyces pombe. Genome, 2000, 43, 205-207.	2.0	1
114	Defects in Mitochondrial Dynamics and Mitochondrial DNA Instability. , 2013, , 141-161.		1
115	First characterization of LHON pedigrees in North Africa. Eye, 2020, 34, 2138-2139.	2.1	1
116	Are Your Mitochondria Ready for a Space Odyssey?. Trends in Endocrinology and Metabolism, 2021, 32, 193-195.	7.1	1
117	Clinical and genetic investigations of three Moroccan families with retinitis pigmentosa phenotypes. Molecular Vision, 2021, 27, 17-25.	1.1	1
118	A homozygous nonsense HECW2 variant is associated with neurodevelopmental delay and intellectual disability. European Journal of Medical Genetics, 2022, 65, 104515.	1.3	1
119	Molecular phylogeny of protists: origin and evolution of the Dinoflagellates. Giornale Botanico Italiano (Florence, Italy: 1962), 1992, 126, 713-725.	0.0	0
120	Neurological Diseases Associated with Mutations in the Mitochondrial Fusion Machinery. , 2011, , 169-196.		0
121	Mitochondrial Fusion Dynamics in Skeletal Muscle of Healthy and Diseased Rat. Biophysical Journal, 2013, 104, 656a.	0.5	0
122	Activation of MPF in Fission Yeast. Novartis Foundation Symposium, 1992, 170, 50-71.	1.1	0
123	Next-Generation Sequencing Identifies Novel PMPCA Variants in Patients with Late-Onset Dominant Optic Atrophy. Genes, 2022, 13, 1202.	2.4	0