Isabel Varela-Nieto

List of Publications by Year
in descending order

129 papers	9,818 citations	94381 37 h-index	37183 96 g-index
136 all docs	136 docs citations	136 times ranked	19550 citing authors

#	Article	IF	Citations
1	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Autophagy, 2016, 12, 1-222.	4.3	4,701
2	Programmed Cell Senescence during Mammalian Embryonic Development. Cell, 2013, 155, 1104-1118.	13.5	1,081
3	Delayed Inner Ear Maturation and Neuronal Loss in Postnatal<i>Igf-1</i>-Deficient Mice. Journal of Neuroscience, 2001, 21, 7630-7641.	1.7	164
4	Stimulation of DNA synthesis by natural ceramide 1-phosphate. Biochemical Journal, 1997, 325, 435-440.	1.7	125
5	Sensorineural hearing loss in insulin-like growth factorâ€ƒI-null mice: a new model of human deafness. European Journal of Neuroscience, 2006, 23, 587-590.	1.2	110
6	The role of glycosylâ€“phosphatidylinositol in signal transduction1Dedicated to Dr. Antonio Sanchez-Bueno.1. International Journal of Biochemistry and Cell Biology, 1998, 30, 313-326.	1.2	103
7	Brain-Derived Neurotrophic Factor and Neurotrophin-3 Support the Survival and Neuritogenesis Response of Developing Cochleovestibular Ganglion Neurons. Developmental Biology, 1993, 159, 266-275.	0.9	98
8	Cell signalling by inositol phosphoglycans from different species. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 1996, 115, 223-241.	0.7	92
9	Spatial and temporal segregation of auditory and vestibular neurons in the otic placode. Developmental Biology, 2008, 322, 109-120.	0.9	82
10	RNA Microarray Analysis in Prenatal Mouse Cochlea Reveals Novel IGF-I Target Genes: Implication of MEF2 and FOXM1 Transcription Factors. PLoS ONE, 2010, 5, e8699.	1.1	79
11	Melanin precursors prevent premature age-related and noise-induced hearing loss in albino mice. Pigment Cell and Melanoma Research, 2010, 23, 72-83.	1.5	78
12	Behavioral phenotype of maLPA₁â€null mice: increased anxietyâ€like behavior and spatial memory deficits. Genes, Brain and Behavior, 2009, 8, 772-784.	1.1	74
13	Expression and function of phospholipase A2in brain. FEBS Letters, 2002, 531, 12-17.	1.3	73
14	Diabetes and the Role of Inositol-Containing Lipids in Insulin Signaling. Molecular Medicine, 1999, 5, 505-514.	1.9	65
15	Cochlear abnormalities in insulin-like growth factor-1 mouse mutants. Hearing Research, 2002, 170, 2-11.	0.9	65
16	Insulin-like growth factor 1 is required for survival of transit-amplifying neuroblasts and differentiation of otic neurons. Developmental Biology, 2003, 262, 242-253.	0.9	63
17	A network of growth and transcription factors controls neuronal differentation and survival in the developing ear. International Journal of Developmental Biology, 2007, 51, 557-570.	0.3	63
18	Acidic sphingomyelinase downregulates the liver-specific methionine adenosyltransferase 1A, contributing to tumor necrosis factorâ€“induced lethal hepatitis. Journal of Clinical Investigation, 2004, 113, 895-904.	3.9	61

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19	Glycosyl-phosphatidylinositol/inositol phosphoglycan: a signaling system for the low-affinity nerve growth factor receptor.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 8016-8019.	3.3	60
20	Glycosyl Inositol Derivatives Related to Inositolphosphoglycan Mediators: Synthesis, Structure, and Biological Activity. Chemistry - A European Journal, 1999, 5, 320-336.	1.7	58
21	Trophic effects of insulin-like growth factor-I (IGF-I) in the inner ear. Hearing Research, 2004, 196, 19-25.	0.9	58
22	A comparative study of age-related hearing loss in wild type and insulin-like growth factor I deficient mice. Frontiers in Neuroanatomy, 2010, 4, 27.	0.9	57
23	AKT Signaling Mediates IGF-I Survival Actions on Otic Neural Progenitors. PLoS ONE, 2012, 7, e30790.	1.1	54
24	Early otic development depends on autophagy for apoptotic cell clearance and neural differentiation. Cell Death and Disease, 2012, 3, e394-e394.	2.7	51
25	Folic acid deficiency induces premature hearing loss through mechanisms involving cochlear oxidative stress and impairment of homocysteine metabolism. FASEB Journal, 2015, 29, 418-432.	0.2	49
26	Isolation and Partial Characterisation of Insulin-Mimetic Inositol Phosphoglycans from Human Liver. Biochemical and Molecular Medicine, 1997, 61, 214-228.	1.5	48
27	Comparison of different aminoglycoside antibiotic treatments to refine ototoxicity studies in adult mice. Laboratory Animals, 2010, 44, 124-131.	0.5	47
28	c-Raf Regulates Cell Survival and Retinal Ganglion Cell Morphogenesis during Neurogenesis. Journal of Neuroscience, 2000, 20, 3254-3262.	1.7	45
29	The Role of Insulin-Like Growth Factor-I in the Physiopathology of Hearing. Frontiers in Molecular Neuroscience, 2011, 4, 11.	1.4	44
30	Serum deprivation increases ceramide levels and induces apoptosis in undifferentiated HN9.10e cells. Neurochemistry International, 2002, 40, 327-336.	1.9	43
31	Drug Delivery to the Inner Ear: Strategies and Their Therapeutic Implications for Sensorineural Hearing Loss. Current Drug Delivery, 2012, 9, 231-242.	0.8	43
32	Brain-Derived Neurotrophic Factor and Neurotrophin-3 Induce Cell Proliferation in the Cochleovestibular Ganglion through a Glycosyl-Phosphatidylinositol Signaling System. Developmental Biology, 1993, 159, 257-265.	0.9	42
33	Glycosyl-phosphatidylinositol-phospholipase Type D: A Possible Candidate for the Generation of Second Messengers. Biochemical and Biophysical Research Communications, 1997, 233, 432-437.	1.0	42
34	Cell Death in the Nervous System: Lessons from Insulin and Insulin-Like Growth Factors. Molecular Neurobiology, 2003, 28, 23-50.	1.9	42
35	TGFÎ²2-induced senescence during early inner ear development. Scientific Reports, 2019, 9, 5912.	1.6	42
36	Autophagy During Vertebrate Development. Cells, 2012, 1, 428-448.	1.8	41

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37	Wbp2 is required for normal glutamatergic synapses in the cochlea and is crucial for hearing. EMBO Molecular Medicine, 2016, 8, 191-207.	3.3	41
38	RasGRF1 disruption causes retinal photoreception defects and associated transcriptomic alterations. Journal of Neurochemistry, 2009, 110, 641-652.	2.1	40
39	Early Development of the Vertebrate Inner Ear. Anatomical Record, 2012, 295, 1775-1790.	0.8	39
40	Frailty in mouse ageing: A conceptual approach. Mechanisms of Ageing and Development, 2016, 160, 34-40.	2.2	39
41	Mild cognitive decline. A position statement of the Cognitive Decline Group of the European Innovation Partnership for Active and Healthy Ageing (EIPAHA). Maturitas, 2016, 83, 83-93.	1.0	39
42	Liver cell proliferation requires methionine adenosyltransferase 2A mRNA up-regulation. Hepatology, 2002, 35, 1381-1391.	3.6	38
43	Mutations in L-type amino acid transporter-2 support SLC7A8 as a novel gene involved in age-related hearing loss. ELife, 2018, 7, .	2.8	38
44	<i>G6PD</i>overexpression protects from oxidative stress and ageâ€related hearing loss. Aging Cell, 2020, 19, e13275.	3.0	37
45	Loss of lysophosphatidic acid receptor LPA1 alters oligodendrocyte differentiation and myelination in the mouse cerebral cortex. Brain Structure and Function, 2015, 220, 3701-3720.	1.2	36
46	Age-regulated function of autophagy in the mouse inner ear. Hearing Research, 2015, 330, 39-50.	0.9	36
47	Solid Lipid Nanoparticles Loaded with Glucocorticoids Protect Auditory Cells from Cisplatin-Induced Ototoxicity. Journal of Clinical Medicine, 2019, 8, 1464.	1.0	36
48	RAF Kinase Activity Regulates Neuroepithelial Cell Proliferation and Neuronal Progenitor Cell Differentiation during Early Inner Ear Development. PLoS ONE, 2010, 5, e14435.	1.1	36
49	IGF-I deficiency and hearing loss: molecular clues and clinical implications. Pediatric Endocrinology Reviews, 2013, 10, 460-72.	1.2	36
50	Programmed cell death in the developing inner ear is balanced by nerve growth factor and insulin-like growth factor I. Journal of Cell Science, 2003, 116, 475-486.	1.2	35
51	Age-related functional and structural retinal modifications in the Igf1â^’/â^’ null mouse. Neurobiology of Disease, 2012, 46, 476-485.	2.1	35
52	Insulin Receptor Substrate 2 (IRS2)-Deficient Mice Show Sensorineural Hearing Loss That Is Delayed by Concomitant Protein Tyrosine Phosphatase 1B (PTP1B) Loss of Function. Molecular Medicine, 2012, 18, 260-269.	1.9	34
53	Transforming growth factor ÃŽÂ²1 inhibition protects from noise-induced hearing loss. Frontiers in Aging Neuroscience, 2015, 7, 32.	1.7	34
54	Usefulness of Electrical Auditory Brainstem Responses to Assess the Functionality of the Cochlear Nerve Using an Intracochlear Test Electrode. Otology and Neurotology, 2017, 38, e413-e420.	0.7	34

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55	MPZL2, Encoding the Epithelial Junctional Protein Myelin Protein Zero-like 2, Is Essential for Hearing in Man and Mouse. American Journal of Human Genetics, 2018, 103, 74-88.	2.6	34
56	Hematotesticular barrier is altered from early stages of liver cirrhosis: Effect of insulin-like growth factor 1. World Journal of Gastroenterology, 2004, 10, 2529.	1.4	33
57	Induction of cell growth by insulin and insulin-like growth factor-I is associated with jun expression in the otic vesicle. , 1998, 398, 323-332.		32
58	Acidic sphingomyelinase downregulates the liver-specific methionine adenosyltransferase 1A, contributing to tumor necrosis factorâ€"induced lethal hepatitis. Journal of Clinical Investigation, 2004, 113, 895-904.	3.9	32
59	The Role of Insulin-Like Growth Factor 1 in the Progression of Age-Related Hearing Loss. Frontiers in Aging Neuroscience, 2017, 9, 411.	1.7	31
60	Synthesis and investigation of the possible insulin-like activity of 1d-4-O- and 1d-6-O-(2-amino-2-deoxy-Î±-d-glucopyranosyl) myo-inositol 1-phosphate and 1d-6-O-(2-amino-2-deoxy-Î±-d-glucopyranosyl) myo-inositol 1,2-(cyclic phosphate). Carbohydrate Research, 1994, 264, 21-31.	1.1	30
61	European Scientific, Ethical, and Legal Issues on Human Stem Cell Research and Regenerative Medicine. Stem Cells, 2010, 28, 1005-1007.	1.4	29
62	Long-term omega-3 fatty acid supplementation prevents expression changes in cochlear homocysteine metabolism and ameliorates progressive hearing loss in C57BL/6J mice. Journal of Nutritional Biochemistry, 2015, 26, 1424-1433.	1.9	29
63	Targeting Cholesterol Homeostasis to Fight Hearing Loss: A New Perspective. Frontiers in Aging Neuroscience, 2015, 7, 3.	1.7	29
64	Cochlear Homocysteine Metabolism at the Crossroad of Nutrition and Sensorineural Hearing Loss. Frontiers in Molecular Neuroscience, 2017, 10, 107.	1.4	29
65	Strict regulation of c-Raf kinase levels is required for early organogenesis of the vertebrate inner ear. Oncogene, 1999, 18, 429-437.	2.6	28
66	Anti-Apoptotic Actions of Insulin-Like Growth Factors: Lessons from Development and Implications in Neoplastic Cell Transformation. Current Pharmaceutical Design, 2007, 13, 687-703.	0.9	28
67	Growth Factors and Early Development of Otic Neurons: Interactions between Intrinsic and Extrinsic Signals. Current Topics in Developmental Biology, 2003, 57, 177-206.	1.0	26
68	Biomarkers in Vestibular Schwannomaâ€"Associated Hearing Loss. Frontiers in Neurology, 2019, 10, 978.	1.1	26
69	Role of glycosyl-phosphatidylinositol hydrolysis as a mitogenic signal for epidermal growth factor. Cellular Signalling, 1995, 7, 411-421.	1.7	25
70	Pollen-induced airway inflammation, hyper-responsiveness and apoptosis in a murine model of allergy. Clinical and Experimental Allergy, 2007, 37, 331-338.	1.4	25
71	Swept-sine noise-induced damage as a hearing loss model for preclinical assays. Frontiers in Aging Neuroscience, 2015, 7, 7.	1.7	25
72	Differential organ phenotypes after postnatal Igf1r gene conditional deletion induced by tamoxifen in UBC-CreERT2; Igf1r fl/fl double transgenic mice. Transgenic Research, 2015, 24, 279-294.	1.3	23

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73	The expression of oxidative stress response genes is modulated by a combination of resveratrol and N-acetylcysteine to ameliorate ototoxicity in the rat cochlea. Hearing Research, 2018, 358, 10-21.	0.9	23
74	Insulin-Like Effects of Inositol Phosphate-Glycan on Messenger RNA Expression in Rat Hepatocytes. Molecular Endocrinology, 1991, 5, 1062-1068.	3.7	22
75	Jejunal microvilli atrophy and reduced nutrient transport in rats with advanced liver cirrhosis: improvement by Insulin-like Growth Factor I. BMC Gastroenterology, 2004, 4, 12.	0.8	22
76	Autophagy in the Vertebrate Inner Ear. Frontiers in Cell and Developmental Biology, 2017, 5, 56.	1.8	22
77	Inositol phospho-oligosaccharide stimulates cell proliferation in the early developing inner ear. Developmental Biology, 1991, 143, 432-435.	0.9	21
78	Involvement of Insulin-Like Growth Factor-I in Inner Ear Organogenesis and Regeneration. Hormone and Metabolic Research, 1999, 31, 126-132.	0.7	21
79	Deficit of mitogen-activated protein kinase phosphatase 1 (DUSP1) accelerates progressive hearing loss. ELife, 2019, 8, .	2.8	21
80	Tackling frailty and functional decline: Background of the action group A3 of the European innovation partnership for active and healthy ageing. Maturitas, 2018, 115, 69-73.	1.0	20
81	Drug development for noise-induced hearing loss. Expert Opinion on Drug Discovery, 2020, 15, 1457-1471.	2.5	20
82	Treatment with N- and C-Terminal Peptides of Parathyroid Hormone-Related Protein Partly Compensate the Skeletal Abnormalities in IGF-I Deficient Mice. PLoS ONE, 2014, 9, e87536.	1.1	20
83	Inositol-phosphoglycan inhibits calcium oscillations in hepatocytes by reducing calcium entry. Cell Calcium, 1997, 21, 125-133.	1.1	17
84	Direct drug application to the round window: A comparative study of ototoxicity in rats. Otolaryngology - Head and Neck Surgery, 2009, 141, 584-590.	1.1	17
85	Autophagy resolves early retinal inflammation in <i>Igf1</i>-deficient mice. DMM Disease Models and Mechanisms, 2016, 9, 965-74.	1.2	17
86	Complementary and distinct roles of autophagy, apoptosis and senescence during early inner ear development. Hearing Research, 2019, 376, 86-96.	0.9	17
87	Towards the in vitro reconstitution of caveolae. Asymmetric incorporation of glycosylphosphatidylinositol (GPI) and gangliosides into liposomal membranes. FEBS Letters, 1999, 457, 71-74.	1.3	16
88	C-Raf deficiency leads to hearing loss and increased noise susceptibility. Cellular and Molecular Life Sciences, 2015, 72, 3983-3998.	2.4	16
89	Pattern of methionine adenosyltransferase isoenzyme expression during rat liver regeneration after partial hepatectomy. FEBS Letters, 1998, 426, 305-308.	1.3	14
90	Phospholipase cleavage of glycosylphosphatidylinositol reconstituted in liposomal membranes. FEBS Letters, 1998, 432, 150-154.	1.3	13

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91	Short-chain ceramide regulates hepatic methionine adenosyltransferase expression. Journal of Hepatology, 2001, 34, 192-201.	1.8	13
92	Purification and Characterization of Insulin-Mimetic Inositol Phosphoglycan-Like Molecules From Grass Pea (Lathyrus sativus) Seeds. Molecular Medicine, 2001, 7, 454-460.	1.9	13
93	Design of a reverberant chamber for noise exposure experiments with small animals. Applied Acoustics, 2009, 70, 1034-1040.	1.7	13
94	Modelling physical resilience in ageing mice. Mechanisms of Ageing and Development, 2019, 177, 91-102.	2.2	13
95	Role of diffusible and transcription factors in inner ear development: implications in regeneration. Histology and Histopathology, 2000, 15, 657-66.	0.5	13
96	Comparative gene expression study of the vestibular organ of the Igf1 deficient mouse using whole-transcript arrays. Hearing Research, 2015, 330, 62-77.	0.9	12
97	Long-Term Dietary Folate Deficiency Accelerates Progressive Hearing Loss on CBA/Ca Mice. Frontiers in Aging Neuroscience, 2016, 8, 209.	1.7	12
98	A Comparative Study of Drug Delivery Methods Targeted to the Mouse Inner Ear: Bullostomy Versus Transtympanic Injection. Journal of Visualized Experiments, 2017, , .	0.2	12
99	The Value of Mouse Models of Rare Diseases: A Spanish Experience. Frontiers in Genetics, 2020, 11, 583932.	1.1	12
100	IGF-1 Haploinsufficiency Causes Age-Related Chronic Cochlear Inflammation and Increases Noise-Induced Hearing Loss. Cells, 2021, 10, 1686.	1.8	12
101	Role of the glycosylphosphatidylinositol/inositol phosphoglycan system in human fibroblast proliferation. Experimental Cell Research, 1992, 200, 439-443.	1.2	11
102	Neuroglial Involvement in Abnormal Glutamate Transport in the Cochlear Nuclei of the Igf1âˆ’/âˆ’ Mouse. Frontiers in Cellular Neuroscience, 2019, 13, 67.	1.8	11
103	Dual-Specificity Phosphatase 1 (DUSP1) Has a Central Role in Redox Homeostasis and Inflammation in the Mouse Cochlea. Antioxidants, 2021, 10, 1351.	2.2	11
104	IGF-1 deficiency causes atrophic changes associated with upregulation of VGluT1 and downregulation of MEF2 transcription factors in the mouse cochlear nuclei. Brain Structure and Function, 2016, 221, 709-734.	1.2	10
105	Insulin-like Growth Factor 1 Signaling in Mammalian Hearing. Genes, 2021, 12, 1553.	1.0	10
106	Editorial: Neuroimmunology of the Inner Ear. Frontiers in Neurology, 2021, 12, 635359.	1.1	8
107	Phosphorylation of glycosyl-phosphatidylinositol by phosphatidylinositol 3-kinase changes its properties as a substrate for phospholipases. FEBS Letters, 2005, 579, 59-65.	1.3	7
108	Betaineâ€homocysteine <i>S</i> â€methyltransferase deficiency causes increased susceptibility to noiseâ€induced hearing loss associated with plasma hyperhomocysteinemia. FASEB Journal, 2019, 33, 5942-5956.	0.2	7

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109	An inositol phosphoglycan stimulates glycolysis in human platelets. Biochemical and Biophysical Research Communications, 1991, 180, 1041-1047.	1.0	6
110	Public investment in biomedical research in Europe. Lancet, The, 2015, 386, 1335.	6.3	6
111	Therapeutic efficiency of the APAFâ€1 antagonist LPT99 in a rat model of cisplatinâ€induced hearing loss. Clinical and Translational Medicine, 2021, 11, e363.	1.7	6
112	Ceramide Kinase Inhibition Blocks IGF-1-Mediated Survival of Otic Neurosensory Progenitors by Impairing AKT Phosphorylation. Frontiers in Cell and Developmental Biology, 2021, 9, 678760.	1.8	6
113	Early Development of the Vertebrate Inner Ear. , 2014, , 1-30.		6
114	Glycosyl phosphatidylinositol (GPI)/inositolphosphate glycan (GPI): An intracellular signalling system involved in the control of thyroid cell proliferation. Biochimie, 1998, 80, 1063-1067.	1.3	5
115	Editorial: Aging, neurogenesis and neuroinflammation in hearing loss and protection. Frontiers in Aging Neuroscience, 2015, 7, 138.	1.7	4
116	Intracellular mediators of insulin-like growth factor I during otic vesicle development. Biochemical Society Transactions, 1995, 23, 185S-185S.	1.6	3
117	Lipid signalling: cellular events and their biophysical mechanisms. FEBS Letters, 2002, 531, 1-1.	1.3	2
118	Otic Neurogenesis Is Regulated by TGFÎ² in a Senescence-Independent Manner. Frontiers in Cellular Neuroscience, 2020, 14, 217.	1.8	2
119	Use of Radical Oxygen Species Scavenger Nitrones to Treat Oxidative Stress-Mediated Hearing Loss: State of the Art and Challenges. Frontiers in Cellular Neuroscience, 2021, 15, 711269.	1.8	2
120	Mannosamine is an unspecific inhibitor of glycosyl-phosphatidylinositol biosynthesis in T-lymphocytes. Biochemical Society Transactions, 1994, 22, 11S-11S.	1.6	1
121	Glycosyl-phosphatidylinositol Cleavage Products in Signal Transduction. , 2005, , 101-119.		1
122	Regulation of Vertebrate Sensory Organ Development: A Scenario for Growth Hormone and Insulin-Like Growth Factors Action. Advances in Experimental Medicine and Biology, 2005, 567, 221-242.	0.8	1
123	Editorial: The Role of Cellular Senescence in Health and Disease. Frontiers in Cellular Neuroscience, 2022, 16, 882417.	1.8	1
124	Signalling at the epidermal growth factor receptor: role of glycosyl-phosphatidylinositol hydrolysis. Biochemical Society Transactions, 1995, 23, 174S-174S.	1.6	0
125	Introduction to structural and functional studies on nerve growth factor. , 1999, 45, 206-206.		0
126	Editorial: Hormones and Neural Aging: Lessons From Experimental Models. Frontiers in Aging Neuroscience, 2018, 10, 374.	1.7	0

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127	Folic acid as preventive therapy for hearing loss: effect of ototoxic drug consumption. Proceedings of the Nutrition Society, 2020, 79, .	0.4	0
128	Glycosyl-Phosphatidylinositol: Role in Neurotrophic Factors Signalling. , 1993, , 103-113.		0
129	Editorial: Otologic Trauma, Pathology, and Therapy. Frontiers in Cellular Neuroscience, 2022, 16, 900074.	1.8	0