Fabio Mammano

List of Publications by Year
in descending order

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Version: 2024-02-01

115	6,496	66315	74108
papers	citations	42 h-index	75 g-index

127	127	127	8362
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-throughput discovery of novel developmental phenotypes. Nature, 2016, 537, 508-514.	13.7	1,001
2	ATP release through connexin hemichannels and gap junction transfer of second messengers propagate Ca ²⁺ signals across the inner ear. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 18770-18775.	3.3	297
3	p53 at the endoplasmic reticulum regulates apoptosis in a Ca ²⁺ -dependent manner. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1779-1784.	3.3	247
4	Impaired permeability to Ins(1,4,5)P3 in a mutant connexin underlies recessive hereditary deafness. Nature Cell Biology, 2005, 7, 63-69.	4.6	234
5	NETosis Delays Diabetic Wound Healing in Mice and Humans. Diabetes, 2016, 65, 1061-1071.	0.3	233
6	Disease model discovery from 3,328 gene knockouts by The International Mouse Phenotyping Consortium. Nature Genetics, 2017, 49, 1231-1238.	9.4	216
7	Reverse transduction measured in the isolated cochlea by laser Michelson interferometry. Nature, 1993, 365, 838-841.	13.7	184
8	Biophysics of the cochlea: Linear approximation. Journal of the Acoustical Society of America, 1993, 93, 3320-3332.	0.5	166
9	How well do we understand the cochlea?. Trends in Neurosciences, 1998, 21, 159-167.	4.2	163
10	A Mechanism for Sensing Noise Damage in the Inner Ear. Current Biology, 2004, 14, 526-529.	1.8	132
11	A functional study of plasma-membrane calcium-pump isoform 2 mutants causing digenic deafness. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1516-1521.	3.3	116
12	Biophysics of the cochlea II: Stationary nonlinear phenomenology. Journal of the Acoustical Society of America, 1996, 99, 2244-2255.	0.5	115
13	Differential expression of outer hair cell potassium currents in the isolated cochlea of the guineaâ€pig.. Journal of Physiology, 1996, 496, 639-646.	1.3	108
14	Purinergic signalling and intercellular Ca2+ wave propagation in the organ of Corti. Cell Calcium, 2007, 41, 77-86.	1.1	95
15	Two Distinct Ca2+-Dependent Signaling Pathways Regulate the Motor Output of Cochlear Outer Hair Cells. Journal of Neuroscience, 2000, 20, 5940-5948.	1.7	91
16	ATP-Induced Ca²⁺ Release in Cochlear Outer Hair Cells: Localization of an Inositol Triphosphate-Gated Ca²⁺ Store to the Base of the Sensory Hair Bundle. Journal of Neuroscience, 1999, 19, 6918-6929.	1.7	85
17	Intravital imaging reveals p53-dependent cancer cell death induced by phototherapy via calcium signaling. Oncotarget, 2015, 6, 1435-1445.	0.8	84
18	The International Mouse Phenotyping Consortium (IMPC): a functional catalogue of the mammalian genome that informs conservation. Conservation Genetics, 2018, 19, 995-1005.	0.8	82

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19	Coordinated control of connexin 26 and connexin 30 at the regulatory and functional level in the inner ear. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 18776-18781.	3.3	78
20	High-throughput mouse phenomics for characterizing mammalian gene function. Nature Reviews Genetics, 2018, 19, 357-370.	7.7	78
21	ATP-mediated cellâ€“cell signaling in the organ of Corti: the role of connexin channels. Purinergic Signalling, 2010, 6, 167-187.	1.1	72
22	Pathogenetic role of the deafness-related M34T mutation of Cx26. Human Molecular Genetics, 2006, 15, 2569-2587.	1.4	71
23	Unitary permeability of gap junction channels to second messengers measured by FRET microscopy. Nature Methods, 2007, 4, 353-358.	9.0	71
24	Three-dimensional current flow in a large-scale model of the cochlea and the mechanism of amplification of sound. Journal of the Royal Society Interface, 2009, 6, 279-291.	1.5	70
25	BAAV Mediated GJB2 Gene Transfer Restores Gap Junction Coupling in Cochlear Organotypic Cultures from Deaf Cx26Sox10Cre Mice. PLoS ONE, 2011, 6, e23279.	1.1	69
26	Human and mouse essentiality screens as a resource for disease gene discovery. Nature Communications, 2020, 11, 655.	5.8	64
27	Connexin-Mediated Signaling in Nonsensory Cells Is Crucial for the Development of Sensory Inner Hair Cells in the Mouse Cochlea. Journal of Neuroscience, 2017, 37, 258-268.	1.7	61
28	Cholinergic control of membrane conductance and intracellular free Ca2+in outer hair cells of the guinea pig cochlea. Cell Calcium, 2000, 28, 195-203.	1.1	60
29	Identification of genetic elements in metabolism by high-throughput mouse phenotyping. Nature Communications, 2018, 9, 288.	5.8	59
30	Permeability and gating properties of human connexins 26 and 30 expressed in HeLa cells. Biochemical and Biophysical Research Communications, 2003, 305, 1024-1033.	1.0	58
31	The human deafness-associated connexin 30 T5M mutation causes mild hearing loss and reduces biochemical coupling among cochlear non-sensory cells in knock-in mice. Human Molecular Genetics, 2010, 19, 4759-4773.	1.4	58
32	Presynaptic Calcium Stores Modulate Afferent Release in Vestibular Hair Cells. Journal of Neuroscience, 2003, 23, 6894-6903.	1.7	57
33	The Novel Mouse Mutation Oblivion Inactivates the PMCA2 Pump and Causes Progressive Hearing Loss. PLoS Genetics, 2008, 4, e1000238.	1.5	56
34	The Novel PMCA2 Pump Mutation Tommy Impairs Cytosolic Calcium Clearance in Hair Cells and Links to Deafness in Mice. Journal of Biological Chemistry, 2010, 285, 37693-37703.	1.6	53
35	Coordinated calcium signalling in cochlear sensory and nonâ€sensory cells refines afferent innervation of outer hair cells. EMBO Journal, 2019, 38, .	3.5	52
36	Regulation of outer hair cell cytoskeletal stiffness by intracellular Ca2+: underlying mechanism and implications for cochlear mechanics. Cell Calcium, 2003, 33, 185-195.	1.1	50

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37	Permeation Pathway of Homomeric Connexin 26 and Connexin 30 Channels Investigated by Molecular Dynamics. Journal of Biomolecular Structure and Dynamics, 2012, 29, 985-998.	2.0	50
38	Cx26 partial loss causes accelerated presbycusis by redox imbalance and dysregulation of Nfr2 pathway. Redox Biology, 2018, 19, 301-317.	3.9	50
39	Transfer of IP3 through gap junctions is critical, but not sufficient, for the spread of apoptosis. Cell Death and Differentiation, 2012, 19, 947-957.	5.0	49
40	Patch clamped responses from outer hair cells in the intact adult organ of Corti. Pflugers Archiv European Journal of Physiology, 1995, 430, 745-750.	1.3	47
41	Water Permeability of Cochlear Outer Hair Cells: Characterization and Relationship to Electromotility. Journal of Neuroscience, 2000, 20, 8996-9003.	1.7	47
42	Purinergic control of intercellular communication between Hensen's cells of the guineaâ€pig cochlea. Journal of Physiology, 2001, 531, 693-706.	1.3	47
43	Inner Ear Connexin Channels: Roles in Development and Maintenance of Cochlear Function. Cold Spring Harbor Perspectives in Medicine, 2019, 9, a033233.	2.9	45
44	Ca2+ Signaling in the Inner Ear. Physiology, 2007, 22, 131-144.	1.6	44
45	Reduced phosphatidylinositol 4,5-bisphosphate synthesis impairs inner ear Ca ²⁺ signaling and high-frequency hearing acquisition. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14013-14018.	3.3	43
46	Otoacoustic Emissions from Residual Oscillations of the Cochlear Basilar Membrane in a Human Ear Model. JARO - Journal of the Association for Research in Otolaryngology, 2003, 4, 478-494.	0.9	41
47	The Membrane-based Mechanism of Cell Motility in Cochlear Outer Hair Cells. Molecular Biology of the Cell, 1998, 9, 1961-1968.	0.9	39
48	Critical role of ATP-induced ATP release for Ca ²⁺ signaling in nonsensory cell networks of the developing cochlea. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E7194-E7201.	3.3	38
49	Functional analysis of R75Q mutation in the gene coding for Connexin 26 identified in a family with nonsyndromic hearing loss. Clinical Genetics, 2005, 68, 161-166.	1.0	37
50	No evidence for inositol 1,4,5-trisphosphateâ€“dependent Ca2+ release in isolated fibers of adult mouse skeletal muscle. Journal of General Physiology, 2012, 140, 235-241.	0.9	36
51	Calcium signaling in the cochlea â€“ Molecular mechanisms and physiopathological implications. Cell Communication and Signaling, 2012, 10, 20.	2.7	36
52	Ca2+ signaling, apoptosis and autophagy in the developing cochlea: Milestones to hearing acquisition. Cell Calcium, 2018, 70, 117-126.	1.1	36
53	Imaging neuronal calcium fluorescence at high spatio-temporal resolution. Journal of Neuroscience Methods, 1999, 87, 1-11.	1.3	34
54	ATP-dependent intercellular Ca2+ signaling in the developing cochlea: Facts, fantasies and perspectives. Seminars in Cell and Developmental Biology, 2013, 24, 31-39.	2.3	34

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55	Molecular dynamics simulations highlight structural and functional alterations in deafnessÃ¢â‚¬â„¢related M34T mutation of connexin 26. Frontiers in Physiology, 2014, 5, 85.	1.3	32
56	Design and Characterization of a Human Monoclonal Antibody that Modulates Mutant Connexin 26 Hemichannels Implicated in Deafness and Skin Disorders. Frontiers in Molecular Neuroscience, 2017, 10, 298.	1.4	31
57	Intracellular calcium dynamics and membrane conductance changes evoked by Deiters' cell purinoceptor activation in the organ of Corti. Cell Calcium, 2001, 29, 191-198.	1.1	30
58	The Deep Genome Project. Genome Biology, 2020, 21, 18.	3.8	30
59	Critical role of gap junction communication, calcium and nitric oxide signaling in bystander responses to focal photodynamic injury. Oncotarget, 2015, 6, 10161-10174.	0.8	30
60	Selective defects in channel permeability associated with Cx32 mutations causing X-linked Charcotâ€“Marieâ€“Tooth disease. Neurobiology of Disease, 2006, 21, 607-617.	2.1	27
61	Cues to Opening Mechanisms From in Silico Electric Field Excitation of Cx26 Hemichannel and in Vitro Mutagenesis Studies in HeLa Transfectans. Frontiers in Molecular Neuroscience, 2018, 11, 170.	1.4	26
62	The 3.5 Ã¥ngstrÃ¶m Xâ˚ray structure of the human connexin26 gap junction channel is unlikely that of a fully open channel. Cell Communication and Signaling, 2013, 11, 15.	2.7	23
63	A Fully Atomistic Model of the Cx32 Connexon. PLoS ONE, 2008, 3, e2614.	1.1	22
64	Extensive identification of genes involved in congenital and structural heart disorders and cardiomyopathy. , 2022, 1, 157-173.		22
65	Calcium microdomains at presynaptic active zones of vertebrate hair cells unmasked by stochastic deconvolution. Cell Calcium, 2008, 44, 158-168.	1.1	21
66	GABA- and glutamate-mediated network activity in the hippocampus of neonatal and juvenile rats revealed by fast calcium imaging. Cell Calcium, 2000, 27, 25-33.	1.1	20
67	Ca2+ homeostasis defects and hereditary hearing loss. BioFactors, 2011, 37, 182-188.	2.6	20
68	A rapid and sensitive assay of intercellular coupling by voltage imaging of gap junction networks. Cell Communication and Signaling, 2013, 11, 78.	2.7	20
69	A potent antagonist antibody targeting connexin hemichannels alleviates Clouston syndrome symptoms in mutant mice. EBioMedicine, 2020, 57, 102825.	2.7	20
70	Electrophysiological properties of HensenÊ¼s cells investigated in situ. NeuroReport, 1996, 7, 537-542.	0.6	19
71	An optical recording system based on a fast CCD sensor for biological imaging. Cell Calcium, 1999, 25, 115-123.	1.1	19
72	Organ-on-chip model shows that ATP release through connexin hemichannels drives spontaneous Ca²⁺ signaling in non-sensory cells of the greater epithelial ridge in the developing cochlea. Lab on A Chip, 2020, 20, 3011-3023.	3.1	19

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73	Mouse mutant phenotyping at scale reveals novel genes controlling bone mineral density. PLoS Genetics, 2020, 16, e1009190.	1.5	19
74	Dynamics of intracellular calcium in hair cells isolated from the semicircular canal of the frog. Cell Calcium, 2001, 30, 131-140.	1.1	18
75	Can you still see the cochlea for the molecules?. Current Opinion in Neurobiology, 2001, 11, 449-454.	2.0	18
76	Role of gamma carboxylated Glu47 in connexin 26 hemichannel regulation by extracellular Ca2+: Insight from a local quantum chemistry study. Biochemical and Biophysical Research Communications, 2014, 445, 10-15.	1.0	17
77	In vivo genetic manipulation of inner ear connexin expression by bovine adeno-associated viral vectors. Scientific Reports, 2017, 7, 6567.	1.6	17
78	Frequency Dependence of Electrical Coupling in Deitersâ€³ Cells of the Guinea Pig Cochlea. Cell Communication and Adhesion, 2001, 8, 393-399.	1.0	16
79	Multiphoton Fluorescence Microscopy with GRIN Objective Aberration Correction by Low Order Adaptive Optics. PLoS ONE, 2011, 6, e22321.	1.1	16
80	PMCA2 pump mutations and hereditary deafness. Neuroscience Letters, 2018, 663, 18-24.	1.0	15
81	Action of 2,3â€butanedione monoxime on capacitance and electromotility of guineaâ€pig cochlear outer hair cells. Journal of Physiology, 2001, 531, 667-676.	1.3	14
82	The p.Cys169Tyr variant of connexin 26 is not a polymorphism. Human Molecular Genetics, 2015, 24, 2641-2648.	1.4	14
83	A Human-Derived Monoclonal Antibody Targeting Extracellular Connexin Domain Selectively Modulates Hemichannel Function. Frontiers in Physiology, 2019, 10, 392.	1.3	14
84	Simvastatin Rapidly and Reversibly Inhibits Insulin Secretion in Intact Single-Islet Cultures. Diabetes Therapy, 2016, 7, 679-693.	1.2	13
85	Mouse Panx1 Is Dispensable for Hearing Acquisition and Auditory Function. Frontiers in Molecular Neuroscience, 2017, 10, 379.	1.4	13
86	Water slip and friction at a solid surface. Journal of Physics Condensed Matter, 2008, 20, 354016.	0.7	12
87	OpenStats: A robust and scalable software package for reproducible analysis of high-throughput phenotypic data. PLoS ONE, 2020, 15, e0242933.	1.1	12
88	A laser interferometer for sub-nanometre measurements in the cochlea. Journal of Neuroscience Methods, 1995, 60, 89-94.	1.3	11
89	Design and Construction of a Cost-Effective Spinning Disk System for Live Imaging of Inner Ear Tissue. Methods in Molecular Biology, 2016, 1427, 223-241.	0.4	11
90	Ca2+ Imaging: Principles of Analysis and Enhancement. Neuromethods, 2010, , 57-80.	0.2	10

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91	Harnessing the therapeutic potential of antibodies targeting connexin hemichannels. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2021, 1867, 166047.	1.8	10
92	Photosensitizer Activation Drives Apoptosis by Interorganellar Ca2+ Transfer and Superoxide Production in Bystander Cancer Cells. Cells, 2019, 8, 1175.	1.8	9
93	Soft windowing application to improve analysis of high-throughput phenotyping data. Bioinformatics, 2020, 36, 1492-1500.	1.8	9
94	CXCR2 increases in ALS cortical neurons and its inhibition prevents motor neuron degeneration in vitro and improves neuromuscular function in SOD1G93A mice. Neurobiology of Disease, 2021, 160, 105538.	2.1	9
95	Calcium Signaling in the Photodamaged Skin: In Vivo Experiments and Mathematical Modeling. Function, 2021, 3, zqab064.	1.1	9
96	Connexin30-Deficiency Causes Mild Hearing Loss With the Reduction of Endocochlear Potential and ATP Release. Frontiers in Cellular Neuroscience, 2021, 15, 819194.	1.8	8
97	Failure Of Hearing Acquisition in Mice With Reduced Expression of Connexin 26 Correlates With the Abnormal Phasing of Apoptosis Relative to Autophagy and Defective ATP-Dependent Ca2+ Signaling in KÃ¶llikerâ€™s Organ. Frontiers in Cellular Neuroscience, 2022, 16, 816079.	1.8	8
98	No evidence for calcium electrogenic exchanger in frog semicircular canal hair cells. European Journal of Neuroscience, 2002, 16, 1647-1653.	1.2	7
99	Connexin Hemichannel Activation by S-Nitrosoglutathione Synergizes Strongly with Photodynamic Therapy Potentiating Anti-Tumor Bystander Killing. Cancers, 2021, 13, 5062.	1.7	7
100	Modeling auditory system nonlinearities through Volterra series. Biological Cybernetics, 1990, 63, 307-313.	0.6	5
101	Dissecting key components of the Ca2+ homeostasis game by multifunctional fluorescence imaging. , 2004, 5324, 265.		5
102	Distinct Expression Patterns of Apoptosis and Autophagy-Associated Proteins and Genes during Postnatal Development of Spiral Ganglion Neurons in Rat. Neural Plasticity, 2020, 2020, 1-9.	1.0	5
103	miRNA and mRNA Profiling Links Connexin Deficiency to Deafness via Early Oxidative Damage in the Mouse Stria Vascularis. Frontiers in Cell and Developmental Biology, 2020, 8, 616878.	1.8	4
104	Single-Cell RNA Sequencing Analysis Reveals Greater Epithelial Ridge Cells Degeneration During Postnatal Development of Cochlea in Rats. Frontiers in Cell and Developmental Biology, 2021, 9, 719491.	1.8	4
105	A Quantitative Assay for Ca2+ Uptake through Normal and Pathological Hemichannels. International Journal of Molecular Sciences, 2022, 23, 7337.	1.8	3
106	Construction and test of a GRIN-based optical objective. Journal of Microscopy, 2011, 242, 100-103.	0.8	2
107	Connexin-Mediated Signaling in Nonsensory Cells Is Crucial for the Development of Sensory Inner Hair Cells in the Mouse Cochlea. Journal of Neuroscience, 2017, 37, 258-268.	1.7	2
108	Commercially-derived versatile optical architecture for two-photon STED, wavelength mixing and label-free microscopy. Biomedical Optics Express, 2022, 13, 1410-1429.	1.5	1

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109	<title>Intracellular gradients of free calcium visualized in sensory and neuronal cells by a high-performance fluorescence imaging system</title>. , 1999, , .		0
110	Inner ear connexins, intercellular signalling and deafness. Audiological Medicine, 2010, 8, 50-55.	0.4	0
111	A biophysical approach to the study of structure and function of connexin channel nanopores. Audiological Medicine, 2012, 10, 31-39.	0.4	0
112	Comparison of a novel adaptive lens with deformable mirrors and its application in high-resolution in-vivo OCT imaging. , 2015, , .		0
113	Development of a multiphoton-multicolor and super-resolution STED microscope for in vivo experiments. , 2017, , .		0
114	CA2+ DYNAMICS IN AUDITORY AND VESTIBULAR HAIR CELLS: MONTE CARLO SIMULATIONS AND EXPERIMENTAL RESULTS. , 2006, , .		0
115	CALCIUM WAVES, CONNEXIN PERMEABILITY DEFECTS AND HEREDITARY DEAFNESS. , 2006, , .		0