

Fabio Mammano

List of Publications by Year in descending order

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115
papers

6,496
citations

66315

42
h-index

74108

75
g-index

127
all docs

127
docs citations

127
times ranked

8362
citing authors

#	ARTICLE	IF	CITATIONS
1	Commercially-derived versatile optical architecture for two-photon STED, wavelength mixing and label-free microscopy. <i>Biomedical Optics Express</i> , 2022, 13, 1410-1429.	1.5	1
2	Extensive identification of genes involved in congenital and structural heart disorders and cardiomyopathy. , 2022, 1, 157-173.		22
3	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 Ca ²⁺ Signaling in KÄ¶llikerâ€™s Organ. <i>Frontiers in Cellular Neuroscience</i> , 2022, 16, 816079.	1.8	8
4	A Quantitative Assay for Ca ²⁺ Uptake through Normal and Pathological Hemichannels. <i>International Journal of Molecular Sciences</i> , 2022, 23, 7337.	1.8	3
5	Harnessing the therapeutic potential of antibodies targeting connexin hemichannels. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2021, 1867, 166047.	1.8	10
6	Single-Cell RNA Sequencing Analysis Reveals Greater Epithelial Ridge Cells Degeneration During Postnatal Development of Cochlea in Rats. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 719491.	1.8	4
7	Connexin Hemichannel Activation by S-Nitrosoglutathione Synergizes Strongly with Photodynamic Therapy Potentiating Anti-Tumor Bystander Killing. <i>Cancers</i> , 2021, 13, 5062.	1.7	7
8	CXCR2 increases in ALS cortical neurons and its inhibition prevents motor neuron degeneration in vitro and improves neuromuscular function in SOD1G93A mice. <i>Neurobiology of Disease</i> , 2021, 160, 105538.	2.1	9
9	Connexin30-Deficiency Causes Mild Hearing Loss With the Reduction of Endocochlear Potential and ATP Release. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 819194.	1.8	8
10	Calcium Signaling in the Photodamaged Skin: In Vivo Experiments and Mathematical Modeling. <i>Function</i> , 2021, 3, zqab064.	1.1	9
11	Soft windowing application to improve analysis of high-throughput phenotyping data. <i>Bioinformatics</i> , 2020, 36, 1492-1500.	1.8	9
12	Organ-on-chip model shows that ATP release through connexin hemichannels drives spontaneous Ca ²⁺ signaling in non-sensory cells of the greater epithelial ridge in the developing cochlea. <i>Lab on A Chip</i> , 2020, 20, 3011-3023.	3.1	19
13	A potent antagonist antibody targeting connexin hemichannels alleviates Clouston syndrome symptoms in mutant mice. <i>EBioMedicine</i> , 2020, 57, 102825.	2.7	20
14	Distinct Expression Patterns of Apoptosis and Autophagy-Associated Proteins and Genes during Postnatal Development of Spiral Ganglion Neurons in Rat. <i>Neural Plasticity</i> , 2020, 2020, 1-9.	1.0	5
15	The Deep Genome Project. <i>Genome Biology</i> , 2020, 21, 18.	3.8	30
16	miRNA and mRNA Profiling Links Connexin Deficiency to Deafness via Early Oxidative Damage in the Mouse Stria Vascularis. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 616878.	1.8	4
17	Human and mouse essentiality screens as a resource for disease gene discovery. <i>Nature Communications</i> , 2020, 11, 655.	5.8	64
18	Mouse mutant phenotyping at scale reveals novel genes controlling bone mineral density. <i>PLoS Genetics</i> , 2020, 16, e1009190.	1.5	19

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19	OpenStats: A robust and scalable software package for reproducible analysis of high-throughput phenotypic data. PLoS ONE, 2020, 15, e0242933.	1.1	12
20	A Human-Derived Monoclonal Antibody Targeting Extracellular Connexin Domain Selectively Modulates Hemichannel Function. Frontiers in Physiology, 2019, 10, 392.	1.3	14
21	Photosensitizer Activation Drives Apoptosis by Interorganellar Ca ²⁺ Transfer and Superoxide Production in Bystander Cancer Cells. Cells, 2019, 8, 1175.	1.8	9
22	Coordinated calcium signalling in cochlear sensory and non-sensory cells refines afferent innervation of outer hair cells. EMBO Journal, 2019, 38, .	3.5	52
23	Inner Ear Connexin Channels: Roles in Development and Maintenance of Cochlear Function. Cold Spring Harbor Perspectives in Medicine, 2019, 9, a033233.	2.9	45
24	PMCA2 pump mutations and hereditary deafness. Neuroscience Letters, 2018, 663, 18-24.	1.0	15
25	High-throughput mouse phenomics for characterizing mammalian gene function. Nature Reviews Genetics, 2018, 19, 357-370.	7.7	78
26	Identification of genetic elements in metabolism by high-throughput mouse phenotyping. Nature Communications, 2018, 9, 288.	5.8	59
27	Ca ²⁺ signaling, apoptosis and autophagy in the developing cochlea: Milestones to hearing acquisition. Cell Calcium, 2018, 70, 117-126.	1.1	36
28	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
29	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
30	Cx26 partial loss causes accelerated presbycusis by redox imbalance and dysregulation of Nfr2 pathway. Redox Biology, 2018, 19, 301-317.	3.9	50
31	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
32	In vivo genetic manipulation of inner ear connexin expression by bovine adeno-associated viral vectors. Scientific Reports, 2017, 7, 6567.	1.6	17
33	Disease model discovery from 3,328 gene knockouts by The International Mouse Phenotyping Consortium. Nature Genetics, 2017, 49, 1231-1238.	9.4	216
34	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
35	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
36	Mouse Panx1 Is Dispensable for Hearing Acquisition and Auditory Function. Frontiers in Molecular Neuroscience, 2017, 10, 379.	1.4	13

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37	Development of a multiphoton-multicolor and super-resolution STED microscope for in vivo experiments. , 2017, , .		0
38	High-throughput discovery of novel developmental phenotypes. Nature, 2016, 537, 508-514.	13.7	1,001
39	Simvastatin Rapidly and Reversibly Inhibits Insulin Secretion in Intact Single-Islet Cultures. Diabetes Therapy, 2016, 7, 679-693.	1.2	13
40	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
41	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
42	NETosis Delays Diabetic Wound Healing in Mice and Humans. Diabetes, 2016, 65, 1061-1071.	0.3	233
43	Intravital imaging reveals p53-dependent cancer cell death induced by phototherapy via calcium signaling. Oncotarget, 2015, 6, 1435-1445.	0.8	84
44	Comparison of a novel adaptive lens with deformable mirrors and its application in high-resolution in-vivo OCT imaging. , 2015, , .		0
45	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
46	The p.Cys169Tyr variant of connexin 26 is not a polymorphism. Human Molecular Genetics, 2015, 24, 2641-2648.	1.4	14
47	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
48	Molecular dynamics simulations highlight structural and functional alterations in deafness-related M34T mutation of connexin 26. Frontiers in Physiology, 2014, 5, 85.	1.3	32
49	Role of gamma carboxylated Glu47 in connexin 26 hemichannel regulation by extracellular Ca ²⁺ : Insight from a local quantum chemistry study. Biochemical and Biophysical Research Communications, 2014, 445, 10-15.	1.0	17
50	The 3.5 Å X-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
51	ATP-dependent intercellular Ca ²⁺ signaling in the developing cochlea: Facts, fantasies and perspectives. Seminars in Cell and Developmental Biology, 2013, 24, 31-39.	2.3	34
52	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
53	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
54	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

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55	Permeation Pathway of Homomeric Connexin 26 and Connexin 30 Channels Investigated by Molecular Dynamics. <i>Journal of Biomolecular Structure and Dynamics</i> , 2012, 29, 985-998.	2.0	50
56	No evidence for inositol 1,4,5-trisphosphate-dependent Ca ²⁺ release in isolated fibers of adult mouse skeletal muscle. <i>Journal of General Physiology</i> , 2012, 140, 235-241.	0.9	36
57	A biophysical approach to the study of structure and function of connexin channel nanopores. <i>Audiological Medicine</i> , 2012, 10, 31-39.	0.4	0
58	Calcium signaling in the cochlea – Molecular mechanisms and physiopathological implications. <i>Cell Communication and Signaling</i> , 2012, 10, 20.	2.7	36
59	Multiphoton Fluorescence Microscopy with GRIN Objective Aberration Correction by Low Order Adaptive Optics. <i>PLoS ONE</i> , 2011, 6, e22321.	1.1	16
60	BAAV Mediated GJB2 Gene Transfer Restores Gap Junction Coupling in Cochlear Organotypic Cultures from Deaf Cx26Sox10Cre Mice. <i>PLoS ONE</i> , 2011, 6, e23279.	1.1	69
61	Construction and test of a GRIN-based optical objective. <i>Journal of Microscopy</i> , 2011, 242, 100-103.	0.8	2
62	Ca ²⁺ homeostasis defects and hereditary hearing loss. <i>BioFactors</i> , 2011, 37, 182-188.	2.6	20
63	ATP-mediated cell-cell signaling in the organ of Corti: the role of connexin channels. <i>Purinergic Signalling</i> , 2010, 6, 167-187.	1.1	72
64	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. <i>Human Molecular Genetics</i> , 2010, 19, 4759-4773.	1.4	58
65	Inner ear connexins, intercellular signalling and deafness. <i>Audiological Medicine</i> , 2010, 8, 50-55.	0.4	0
66	The Novel PMCA2 Pump Mutation Tommy Impairs Cytosolic Calcium Clearance in Hair Cells and Links to Deafness in Mice. <i>Journal of Biological Chemistry</i> , 2010, 285, 37693-37703.	1.6	53
67	Ca ²⁺ Imaging: Principles of Analysis and Enhancement. <i>Neuromethods</i> , 2010, , 57-80.	0.2	10
68	Three-dimensional current flow in a large-scale model of the cochlea and the mechanism of amplification of sound. <i>Journal of the Royal Society Interface</i> , 2009, 6, 279-291.	1.5	70
69	Calcium microdomains at presynaptic active zones of vertebrate hair cells unmasked by stochastic deconvolution. <i>Cell Calcium</i> , 2008, 44, 158-168.	1.1	21
70	ATP release through connexin hemichannels and gap junction transfer of second messengers propagate Ca ²⁺ signals across the inner ear. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 18770-18775.	3.3	297
71	The Novel Mouse Mutation Oblivion Inactivates the PMCA2 Pump and Causes Progressive Hearing Loss. <i>PLoS Genetics</i> , 2008, 4, e1000238.	1.5	56
72	Coordinated control of connexin 26 and connexin 30 at the regulatory and functional level in the inner ear. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 18776-18781.	3.3	78

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73	Water slip and friction at a solid surface. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 354016.	0.7	12
74	A Fully Atomistic Model of the Cx32 Connexon. <i>PLoS ONE</i> , 2008, 3, e2614.	1.1	22
75	A functional study of plasma-membrane calcium-pump isoform 2 mutants causing digenic deafness. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 1516-1521.	3.3	116
76	Ca ²⁺ Signaling in the Inner Ear. <i>Physiology</i> , 2007, 22, 131-144.	1.6	44
77	Unitary permeability of gap junction channels to second messengers measured by FRET microscopy. <i>Nature Methods</i> , 2007, 4, 353-358.	9.0	71
78	Purinergic signalling and intercellular Ca ²⁺ wave propagation in the organ of Corti. <i>Cell Calcium</i> , 2007, 41, 77-86.	1.1	95
79	Selective defects in channel permeability associated with Cx32 mutations causing X-linked Charcot-Marie-Tooth disease. <i>Neurobiology of Disease</i> , 2006, 21, 607-617.	2.1	27
80	Pathogenetic role of the deafness-related M34T mutation of Cx26. <i>Human Molecular Genetics</i> , 2006, 15, 2569-2587.	1.4	71
81	CA ²⁺ DYNAMICS IN AUDITORY AND VESTIBULAR HAIR CELLS: MONTE CARLO SIMULATIONS AND EXPERIMENTAL RESULTS. , 2006, , .		0
82	CALCIUM WAVES, CONNEXIN PERMEABILITY DEFECTS AND HEREDITARY DEAFNESS. , 2006, , .		0
83	Functional analysis of R75Q mutation in the gene coding for Connexin 26 identified in a family with nonsyndromic hearing loss. <i>Clinical Genetics</i> , 2005, 68, 161-166.	1.0	37
84	Impaired permeability to Ins(1,4,5)P ₃ in a mutant connexin underlies recessive hereditary deafness. <i>Nature Cell Biology</i> , 2005, 7, 63-69.	4.6	234
85	A Mechanism for Sensing Noise Damage in the Inner Ear. <i>Current Biology</i> , 2004, 14, 526-529.	1.8	132
86	Dissecting key components of the Ca ²⁺ homeostasis game by multifunctional fluorescence imaging. , 2004, 5324, 265.		5
87	Otoacoustic Emissions from Residual Oscillations of the Cochlear Basilar Membrane in a Human Ear Model. <i>JARO - Journal of the Association for Research in Otolaryngology</i> , 2003, 4, 478-494.	0.9	41
88	Regulation of outer hair cell cytoskeletal stiffness by intracellular Ca ²⁺ : underlying mechanism and implications for cochlear mechanics. <i>Cell Calcium</i> , 2003, 33, 185-195.	1.1	50
89	Permeability and gating properties of human connexins 26 and 30 expressed in HeLa cells. <i>Biochemical and Biophysical Research Communications</i> , 2003, 305, 1024-1033.	1.0	58
90	Presynaptic Calcium Stores Modulate Afferent Release in Vestibular Hair Cells. <i>Journal of Neuroscience</i> , 2003, 23, 6894-6903.	1.7	57

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91	No evidence for calcium electrogenic exchanger in frog semicircular canal hair cells. <i>European Journal of Neuroscience</i> , 2002, 16, 1647-1653.	1.2	7
92	Action of 2,3-butanedione monoxime on capacitance and electromotility of guinea-pig cochlear outer hair cells. <i>Journal of Physiology</i> , 2001, 531, 667-676.	1.3	14
93	Purinergic control of intercellular communication between Hensen's cells of the guinea-pig cochlea. <i>Journal of Physiology</i> , 2001, 531, 693-706.	1.3	47
94	Intracellular calcium dynamics and membrane conductance changes evoked by Deiters' cell purinoceptor activation in the organ of Corti. <i>Cell Calcium</i> , 2001, 29, 191-198.	1.1	30
95	Dynamics of intracellular calcium in hair cells isolated from the semicircular canal of the frog. <i>Cell Calcium</i> , 2001, 30, 131-140.	1.1	18
96	Can you still see the cochlea for the molecules?. <i>Current Opinion in Neurobiology</i> , 2001, 11, 449-454.	2.0	18
97	Frequency Dependence of Electrical Coupling in Deiters' Cells of the Guinea Pig Cochlea. <i>Cell Communication and Adhesion</i> , 2001, 8, 393-399.	1.0	16
98	Two Distinct Ca ²⁺ -Dependent Signaling Pathways Regulate the Motor Output of Cochlear Outer Hair Cells. <i>Journal of Neuroscience</i> , 2000, 20, 5940-5948.	1.7	91
99	GABA- and glutamate-mediated network activity in the hippocampus of neonatal and juvenile rats revealed by fast calcium imaging. <i>Cell Calcium</i> , 2000, 27, 25-33.	1.1	20
100	Cholinergic control of membrane conductance and intracellular free Ca ²⁺ in outer hair cells of the guinea pig cochlea. <i>Cell Calcium</i> , 2000, 28, 195-203.	1.1	60
101	Water Permeability of Cochlear Outer Hair Cells: Characterization and Relationship to Electromotility. <i>Journal of Neuroscience</i> , 2000, 20, 8996-9003.	1.7	47
102	ATP-Induced Ca ²⁺ Release in Cochlear Outer Hair Cells: Localization of an Inositol Triphosphate-Gated Ca ²⁺ Store to the Base of the Sensory Hair Bundle. <i>Journal of Neuroscience</i> , 1999, 19, 6918-6929.	1.7	85
103	Imaging neuronal calcium fluorescence at high spatio-temporal resolution. <i>Journal of Neuroscience Methods</i> , 1999, 87, 1-11.	1.3	34
104	An optical recording system based on a fast CCD sensor for biological imaging. <i>Cell Calcium</i> , 1999, 25, 115-123.	1.1	19
105	<title>Intracellular gradients of free calcium visualized in sensory and neuronal cells by a high-performance fluorescence imaging system</title>. , 1999, , .		0
106	How well do we understand the cochlea?. <i>Trends in Neurosciences</i> , 1998, 21, 159-167.	4.2	163
107	The Membrane-based Mechanism of Cell Motility in Cochlear Outer Hair Cells. <i>Molecular Biology of the Cell</i> , 1998, 9, 1961-1968.	0.9	39
108	Differential expression of outer hair cell potassium currents in the isolated cochlea of the guinea-pig. <i>Journal of Physiology</i> , 1996, 496, 639-646.	1.3	108

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109	Electrophysiological properties of Hensen's cells investigated in situ. NeuroReport, 1996, 7, 537-542.	0.6	19
110	Biophysics of the cochlea II: Stationary nonlinear phenomenology. Journal of the Acoustical Society of America, 1996, 99, 2244-2255.	0.5	115
111	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
112	A laser interferometer for sub-nanometre measurements in the cochlea. Journal of Neuroscience Methods, 1995, 60, 89-94.	1.3	11
113	Reverse transduction measured in the isolated cochlea by laser Michelson interferometry. Nature, 1993, 365, 838-841.	13.7	184
114	Biophysics of the cochlea: Linear approximation. Journal of the Acoustical Society of America, 1993, 93, 3320-3332.	0.5	166
115	Modeling auditory system nonlinearities through Volterra series. Biological Cybernetics, 1990, 63, 307-313.	0.6	5