Donglin Bai

List of Publications by Year
in descending order

79 papers	3,700 citations	159358 30 h-index	133063 59 g-index
80 all docs	80 docs citations	80 times ranked	3648 citing authors

#	Article	IF	Citations
1	Somatic Mutations in the Connexin 40 Gene (GJA5) in Atrial Fibrillation. New England Journal of Medicine, 2006, 354, 2677-2688.	13.9	510
2	Pannexin 1 and pannexin 3 are glycoproteins that exhibit many distinct characteristics from the connexin family of gap junction proteins. Journal of Cell Science, 2007, 120, 3772-3783.	1.2	369
3	Distinct Functional and Pharmacological Properties of Tonic and Quantal Inhibitory Postsynaptic Currents Mediated by Î³-Aminobutyric Acid_A Receptors in Hippocampal Neurons. Molecular Pharmacology, 2001, 59, 814-824.	1.0	335
4	Actions of imidacloprid and a related nitromethylene on cholinergic receptors of an identified insect motor neurone. Pest Management Science, 1991, 33, 197-204.	0.7	263
5	A Gja1 missense mutation in a mouse model of oculodentodigital dysplasia. Development (Cambridge), 2005, 132, 4375-4386.	1.2	211
6	The General Anesthetic Propofol Slows Deactivation and Desensitization of GABA_AReceptors. Journal of Neuroscience, 1999, 19, 10635-10646.	1.7	175
7	Block of Specific Gap Junction Channel Subtypes by 2-Aminoethoxydiphenyl Borate (2-APB). Journal of Pharmacology and Experimental Therapeutics, 2006, 319, 1452-1458.	1.3	112
8	Oculodentodigital Dysplasia-causing Connexin43 Mutants Are Non-functional and Exhibit Dominant Effects on Wild-type Connexin43. Journal of Biological Chemistry, 2005, 280, 11458-11466.	1.6	106
9	Functional Characterization of Oculodentodigital Dysplasia-Associated Cx43 Mutants. Cell Communication and Adhesion, 2005, 12, 279-292.	1.0	67
10	ClinGen expert clinical validity curation of 164 hearing loss geneâ€“disease pairs. Genetics in Medicine, 2019, 21, 2239-2247.	1.1	67
11	In CA1 Pyramidal Neurons of the Hippocampus Protein Kinase C Regulates Calcium-Dependent Inactivation of NMDA Receptors. Journal of Neuroscience, 2000, 20, 4452-4461.	1.7	63
12	Functional Characterization of aGJA1Frameshift Mutation Causing Oculodentodigital Dysplasia and Palmoplantar Keratoderma. Journal of Biological Chemistry, 2006, 281, 31801-31811.	1.6	63
13	Differential Potency of Dominant Negative Connexin43 Mutants in Oculodentodigital Dysplasia. Journal of Biological Chemistry, 2007, 282, 19190-19202.	1.6	62
14	In vivo analysis of undocked connexin43 gap junction hemichannels in ovarian granulosa cells. Journal of Cell Science, 2007, 120, 4016-4024.	1.2	53
15	Extracellular domains play different roles in gap junction formation and docking compatibility. Biochemical Journal, 2014, 458, 1-10.	1.7	52
16	Novel GermlineGJA5/Connexin40 Mutations Associated with Lone Atrial Fibrillation Impair Gap Junctional Intercellular Communication. Human Mutation, 2013, 34, n/a-n/a.	1.1	51
17	A Dominant Loss-of-Function GJA1 (Cx43) Mutant Impairs Parturition in the Mouse1. Biology of Reproduction, 2009, 80, 1099-1106.	1.2	46
18	Atrial fibrillationâ€linked GJA5/connexin40 mutants impaired gap junctions via different mechanisms. FEBS Letters, 2014, 588, 1238-1243.	1.3	44

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19	Crucial motifs and residues in the extracellular loops influence the formation and specificity of connexin docking. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 9-21.	1.4	44
20	Asparagine 175 of Connexin32 Is a Critical Residue for Docking and Forming Functional Heterotypic Gap Junction Channels with Connexin26. Journal of Biological Chemistry, 2011, 286, 19672-19681.	1.6	43
21	Fate of connexin43 in cardiac tissue harbouring a disease-linked connexin43 mutant. Cardiovascular Research, 2008, 80, 385-395.	1.8	42
22	Patch-clamp study reveals that the importance of connexin43-mediated gap junctional communication for ovarian folliculogenesis is strain specific in the mouse. American Journal of Physiology - Cell Physiology, 2006, 290, C290-C297.	2.1	41
23	Structure and functional studies of N-terminal Cx43 mutants linked to oculodentodigital dysplasia. Molecular Biology of the Cell, 2012, 23, 3312-3321.	0.9	41
24	The severity of mammary gland developmental defects is linked to the overall functional status of Cx43 as revealed by genetically modified mice. Biochemical Journal, 2013, 449, 401-413.	1.7	41
25	Cyclic GMP-dependent feedback inhibition of AMPA receptors is independent of PKG. Nature Neuroscience, 2000, 3, 559-565.	7.1	38
26	GABAB Receptor Modulation of Rapid Inhibitory and Excitatory Neurotransmission From Subfornical Organ and Other Afferents to Median Preoptic Nucleus Neurons. Journal of Neurophysiology, 2004, 92, 111-122.	0.9	38
27	Human dermal fibroblasts derived from oculodentodigital dysplasia patients suggest that patients may have woundâ€healing defects. Human Mutation, 2011, 32, 456-466.	1.1	38
28	D -Aspartate and NMDA, but not L -aspartate, block AMPA receptors in rat hippocampal neurons. British Journal of Pharmacology, 2005, 145, 449-459.	2.7	37
29	The Canonical WNT2 Pathway and FSH Interact to Regulate Gap Junction Assembly in Mouse Granulosa Cells1. Biology of Reproduction, 2013, 89, 39.	1.2	35
30	A gap junction docking mechanism revealed by functional rescue of a human disease-linked connexin mutant. Journal of Cell Science, 2013, 126, 3113-20.	1.2	34
31	Effects of [3 H]-BIDN, a novel bicyclic dinitrile radioligand for GABA-gated chloride channels of insects and vertebrates. British Journal of Pharmacology, 1997, 121, 1496-1505.	2.7	32
32	Autosomal recessive GJA1 (Cx43) gene mutations cause oculodentodigital dysplasia by distinct mechanisms. Journal of Cell Science, 2013, 126, 2857-66.	1.2	31
33	The Role of Amino Terminus of Mouse Cx50 in Determining Transjunctional Voltage-Dependent Gating and Unitary Conductance. Biophysical Journal, 2010, 99, 2077-2086.	0.2	28
34	Structural analysis of key gap junction domainsâ€"Lessons from genome data and disease-linked mutants. Seminars in Cell and Developmental Biology, 2016, 50, 74-82.	2.3	25
35	ANG II AT1 receptors induce depolarization and inward current in rat median preoptic neurons in vitro. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 1998, 275, R632-R639.	0.9	24
36	Junctional delay, frequency, and direction-dependent uncoupling of human heterotypic Cx45/Cx43 gap junction channels. Journal of Molecular and Cellular Cardiology, 2017, 111, 17-26.	0.9	23

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37	Functional Characterization of Novel Atrial Fibrillation-Linked GJA5 (Cx40) Mutants. International Journal of Molecular Sciences, 2018, 19, 977.	1.8	23
38	The distribution and functional properties of Pelizaeusâ€“Merzbacher-like disease-linked Cx47 mutations on Cx47/Cx47 homotypic and Cx47/Cx43 heterotypic gap junctions. Biochemical Journal, 2013, 452, 249-258.	1.7	22
39	Charge at the 46th residue of connexin 50 is crucial for the gapâ€junctional unitary conductance and transjunctional voltageâ€dependent gating. Journal of Physiology, 2014, 592, 5187-5202.	1.3	22
40	The <scp>G</scp>60<scp>S C</scp>x43 mutant enhances keratinocyte proliferation and differentiation. Experimental Dermatology, 2012, 21, 612-618.	1.4	21
41	Oogenesis defects in a mutant mouse model of oculodentodigital dysplasia. DMM Disease Models and Mechanisms, 2009, 2, 157-167.	1.2	20
42	An endoplasmic reticulum-retained atrial fibrillation-linked connexin40 mutant impairs atrial gap junction channel function. DMM Disease Models and Mechanisms, 2014, 7, 561-9.	1.2	20
43	Specific functional pathologies of Cx43 mutations associated with oculodentodigital dysplasia. Molecular Biology of the Cell, 2016, 27, 2172-2185.	0.9	20
44	Connexin45 (GJC1) loss-of-function mutation contributes to familial atrial fibrillation and conduction disease. Heart Rhythm, 2021, 18, 684-693.	0.3	20
45	Atrial Fibrillation-Linked Germline GJA5/Connexin40 Mutants Showed an Increased Hemichannel Function. PLoS ONE, 2014, 9, e95125.	1.1	18
46	Nonâ€ionotropic crossâ€talk between AMPA and NMDA receptors in rodent hippocampal neurones. Journal of Physiology, 2002, 543, 23-33.	1.3	17
47	Sodiumâ€“hydrogen exchange inhibition attenuates glycoside-induced hypertrophy in rat ventricular myocytes. Cardiovascular Research, 2010, 85, 79-89.	1.8	17
48	Connexin 46 and connexin 50 gap junction channel properties are shaped by structural and dynamic features of their Nâ€terminal domains. Journal of Physiology, 2021, 599, 3313-3335.	1.3	15
49	Engineered Cx40 variants increased docking and function of heterotypic Cx40/Cx43 gap junction channels. Journal of Molecular and Cellular Cardiology, 2016, 90, 11-20.	0.9	14
50	Acetylcholine receptors of thoracic dorsal midline neurones in the cockroach,Periplaneta americana. Archives of Insect Biochemistry and Physiology, 1992, 21, 289-301.	0.6	13
51	Aspartic Acid Residue D3 Critically Determines Cx50 Gap Junction Channel Transjunctional Voltage-Dependent Gating and Unitary Conductance. Biophysical Journal, 2012, 102, 1022-1031.	0.2	13
52	Functional roles of the amino terminal domain in determining biophysical properties of Cx50 gap junction channels. Frontiers in Physiology, 2013, 4, 373.	1.3	13
53	Muscarinic acetylcholine receptors on an identified motor neurone in the cockroach, Periplaneta americana. Neuroscience Letters, 1994, 175, 161-165.	1.0	12
54	d-Serine inhibits AMPA receptor-mediated current in rat hippocampal neurons. Canadian Journal of Physiology and Pharmacology, 2007, 85, 546-555.	0.7	12

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55	Engineered Cx26 variants established functional heterotypic Cx26/Cx43 and Cx26/Cx40 gap junction channels. Biochemical Journal, 2016, 473, 1391-1403.	1.7	12
56	Bicuculline-insensitive GABA-gated Cl? channels in the larval nervous system of the moth Manduca sexta. Invertebrate Neuroscience, 2003, 5, 37-43.	1.8	11
57	The First Extracellular Domain Plays an Important Role in Unitary Channel Conductance of Cx50 Gap Junction Channels. PLoS ONE, 2015, 10, e0143876.	1.1	11
58	Heterotypic docking compatibility of human connexin37 with other vascular connexins. Journal of Molecular and Cellular Cardiology, 2019, 127, 194-203.	0.9	8
59	Effects of temperature on transjunctional voltage-dependent gating kinetics in Cx45 and Cx40 gap junction channels. Journal of Molecular and Cellular Cardiology, 2019, 127, 185-193.	0.9	8
60	Actions of a coral toxin analogue (bipinnatin-B) on an insect nicotinic acetylcholine receptor. Archives of Insect Biochemistry and Physiology, 1993, 23, 155-159.	0.6	7
61	Variants with increased negative electrostatic potential in the Cx50 gap junction pore increased unitary channel conductance and magnesium modulation. Biochemical Journal, 2018, 475, 3315-3330.	1.7	7
62	Differential Domain Distribution of gnomAD- and Disease-Linked Connexin Missense Variants. International Journal of Molecular Sciences, 2021, 22, 7832.	1.8	7
63	Neosurugatoxin blocks an ?-bungarotoxin-sensitive neuronal nicotinic acetylcholine receptor. Archives of Insect Biochemistry and Physiology, 1993, 23, 161-167.	0.6	6
64	The amino terminal domain plays an important role in transjunctional voltage-dependent gating kinetics of Cx45 gap junctions. Journal of Molecular and Cellular Cardiology, 2020, 143, 71-84.	0.9	6
65	Modulation of AMPA receptors by a novel organic nitrate. Canadian Journal of Physiology and Pharmacology, 2001, 79, 422-429.	0.7	5
66	Functional Characterization of a GJA1 Frameshift Mutation Causing Oculodentodigital Dysplasia and Palmoplantar Keratoderma. Journal of Biological Chemistry, 2006, 281, 31801-31811.	1.6	5
67	Heterotypic connexin50/connexin50 mutant gap junction channels reveal interactions between two hemichannels during transjunctional voltageâ€dependent gating. Journal of Physiology, 2012, 590, 5037-5052.	1.3	4
68	Interrogation of Carboxy-Terminus Localized GJA1 Variants Associated with Erythrokeratodermia Variabilis et Progressiva. International Journal of Molecular Sciences, 2022, 23, 486.	1.8	4
69	Patch Clamp Analysis of Gap Junction Channel Properties. , 2016, , 93-114.		2
70	The Residues in the First Extracellular Domain Play an Important Role in Transjunctional-Voltage Dependent Gating and Unitary Conductance of Cx50 Gap Junction Channels. Biophysical Journal, 2014, 106, 556a.	0.2	1
71	Asparagine175 of Cx32 is a Critical Residue for Docking and Forming Functional Heterotypic Gap Junction Channels with Cx26. Biophysical Journal, 2011, 100, 563a.	0.2	0
72	Molecular Mechanisms Governing Cx26/Cx32 Heterotypic Docking and Functional Gap Junction Channel Formation. Biophysical Journal, 2012, 102, 107a.	0.2	0

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73	Novel Transjunctional-Voltage Dependent Gating and Unitary Conductance Properties of the Heterotypic Gap Junction Channels Formed by Cx50 and Cx50 Chimera/Mutant. Biophysical Journal, 2012, 102, 107a-108a.	0.2	0
74	Hydrogen Bonds at the Docking Interface are Critical for Functional Gap Junction Channel Formation of Cx26 and Cx32. Biophysical Journal, 2013, 104, 43a.	0.2	0
75	The Residues in the First Extracellular Domain Play an Important Role in Transjunctional-Voltage Dependent Gating and Unitary Channel Conductance of Cx50 Gap Junction Channels. Biophysical Journal, 2015, 108, 442a.	0.2	0
76	Engineered Cx40 Variants Showed Heterotypic Colocalization and Increased GAP Junctional Coupling with Cx43. Biophysical Journal, 2016, 110, 118a.	0.2	0
77	The Residues in the Amino Terminal and First Extracellular Domains and Intracellular Magnesium Influence Cx50 Unitary Gap Junction Channel Conductance. Biophysical Journal, 2018, 114, 133a.	0.2	0
78	Heterotypic Docking Compatibility of Human Cx37 with Other Vascular Connexins. Biophysical Journal, 2019, 116, 241a.	0.2	0
79	INVOLVEMENT OF UNDOCKED CONNEXIN43 CONNEXONS IN MOUSE FOLLICULOGENESIS: ANALYSIS IN AN IN VIVO MODEL. Biology of Reproduction, 2007, 77, 222-222.	1.2	0