Julia V Gorelik

List of Publications by Year
in descending order

66 papers	4,294 citations	126708 33 h-index	149479 56 g-index
69 all docs	69 docs citations	69 times ranked	4148 citing authors

#	Article	IF	Citations
1	Î² ₂ -Adrenergic Receptor Redistribution in Heart Failure Changes cAMP Compartmentation. Science, 2010, 327, 1653-1657.	6.0	505
2	Nanoscale live-cell imaging using hopping probe ion conductance microscopy. Nature Methods, 2009, 6, 279-281.	9.0	462
3	Loss of T-tubules and other changes to surface topography in ventricular myocytes from failing human and rat heart. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6854-6859.	3.3	334
4	Cardiac BIN1 folds T-tubule membrane, controlling ion flux and limiting arrhythmia. Nature Medicine, 2014, 20, 624-632.	15.2	203
5	FRET biosensor uncovers cAMP nano-domains at Î²-adrenergic targets that dictate precise tuning of cardiac contractility. Nature Communications, 2017, 8, 15031.	5.8	166
6	Cell Volume Measurement Using Scanning Ion Conductance Microscopy. Biophysical Journal, 2000, 78, 451-457.	0.2	160
7	The bile acid taurocholate impairs rat cardiomyocyte function: a proposed mechanism for intra-uterine fetal death in obstetric cholestasis. Clinical Science, 2001, 100, 363-369.	1.8	129
8	The structure and function of cardiac t-tubules in health and disease. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 2714-2723.	1.2	121
9	Bile Acid-Induced Arrhythmia Is Mediated by Muscarinic M2 Receptors in Neonatal Rat Cardiomyocytes. PLoS ONE, 2010, 5, e9689.	1.1	109
10	Nanoscale-Targeted Patch-Clamp Recordings of Functional Presynaptic Ion Channels. Neuron, 2013, 79, 1067-1077.	3.8	103
11	Caveolin-3 regulates compartmentation of cardiomyocyte beta2-adrenergic receptor-mediated cAMP signaling. Journal of Molecular and Cellular Cardiology, 2014, 67, 38-48.	0.9	103
12	Plasticity of Surface Structures and Î² ₂ -Adrenergic Receptor Localization in Failing Ventricular Cardiomyocytes During Recovery From Heart Failure. Circulation: Heart Failure, 2012, 5, 357-365.	1.6	102
13	Microdomain-Specific Modulation of L-Type Calcium Channels Leads to Triggered Ventricular Arrhythmia in Heart Failure. Circulation Research, 2016, 119, 944-955.	2.0	101
14	Direct Evidence for Microdomain-Specific Localization and Remodeling of Functional L-Type Calcium Channels in Rat and Human Atrial Myocytes. Circulation, 2015, 132, 2372-2384.	1.6	96
15	Super-resolution Scanning Patch Clamp Reveals Clustering of Functional Ion Channels in Adult Ventricular Myocyte. Circulation Research, 2013, 112, 1112-1120.	2.0	89
16	Highâ€resolution scanning patchâ€clamp: new insights into cell function. FASEB Journal, 2002, 16, 748-750.	0.2	77
17	Mechanical unloading reverses transverse tubule remodelling and normalizes local Ca²⁺â€induced Ca²⁺release in a rodent model of heart failure. European Journal of Heart Failure, 2012, 14, 571-580.	2.9	76
18	Nanoscale visualization of functional adhesion/excitability nodes at the intercalated disc. Nature Communications, 2016, 7, 10342.	5.8	76

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19	Prolonged mechanical unloading affects cardiomyocyte excitationâ€contraction coupling, transverseâ€tubule structure, and the cell surface. FASEB Journal, 2010, 24, 3321-3329.	0.2	73
20	A protective antiarrhythmic role of ursodeoxycholic acid in anin vitrorat model of the cholestatic fetal heart. Hepatology, 2011, 54, 1282-1292.	3.6	73
21	Role of Shear Stress in Endothelial Cell Morphology and Expression of Cyclooxygenase Isoforms. Arteriosclerosis, Thrombosis, and Vascular Biology, 2011, 31, 384-391.	1.1	71
22	Transgenic Mice for Real-Time Visualization of cGMP in Intact Adult Cardiomyocytes. Circulation Research, 2014, 114, 1235-1245.	2.0	71
23	Taurocholate induces changes in rat cardiomyocyte contraction and calcium dynamics. Clinical Science, 2002, 103, 191-200.	1.8	67
24	The bile acid taurocholate impairs rat cardiomyocyte function: a proposed mechanism for intra-uterine fetal death in obstetric cholestasis. Clinical Science, 2001, 100, 363.	1.8	62
25	Scanning ion conductance microscopy: a convergent high-resolution technology for multi-parametric analysis of living cardiovascular cells. Journal of the Royal Society Interface, 2011, 8, 913-925.	1.5	61
26	A novel Z-groove index characterizing myocardial surface structure. Cardiovascular Research, 2006, 72, 422-429.	1.8	55
27	T-tubule remodelling disturbs localized Î²2-adrenergic signalling in rat ventricular myocytes during the progression of heart failure. Cardiovascular Research, 2017, 113, 770-782.	1.8	53
28	Cardiomyocyte Membrane Structure and cAMP Compartmentation Produce Anatomical Variation in Î²2AR-cAMP Responsiveness in Murine Hearts. Cell Reports, 2018, 23, 459-469.	2.9	51
29	Bile acids and their respective conjugates elicit different responses in neonatal cardiomyocytes: role of Gi protein, muscarinic receptors and TGR5. Scientific Reports, 2018, 8, 7110.	1.6	50
30	Spatial control of the Î²2AR system in heart failure: the transverse tubule and beyond. Cardiovascular Research, 2013, 98, 216-224.	1.8	49
31	Interaction of the Joining Region in Junctophilin-2 With the L-Type Ca ²⁺ Channel Is Pivotal for Cardiac Dyad Assembly and Intracellular Ca ²⁺ Dynamics. Circulation Research, 2021, 128, 92-114.	2.0	45
32	The scanning ion conductance microscope for cellular physiology. American Journal of Physiology - Heart and Circulatory Physiology, 2013, 304, H1-H11.	1.5	42
33	Fetal cardiac dysfunction in intrahepatic cholestasis of pregnancy is associated with elevated serum bile acid concentrations. Journal of Hepatology, 2021, 74, 1087-1096.	1.8	38
34	Shape and Compliance of Endothelial Cells after Shear Stress In Vitro or from Different Aortic Regions: Scanning Ion Conductance Microscopy Study. PLoS ONE, 2012, 7, e31228.	1.1	35
35	Cardiomyocyte <scp><scp>Ca</scp></scp>²⁺ handling and structure is regulated by degree and duration of mechanical load variation. Journal of Cellular and Molecular Medicine, 2012, 16, 2910-2918.	1.6	34
36	The protective effect of ursodeoxycholic acid in an inÂvitro model of the human fetal heart occurs via targeting cardiac fibroblasts. Progress in Biophysics and Molecular Biology, 2016, 120, 149-163.	1.4	34

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37	Junctophilin-2 tethers T-tubules and recruits functional L-type calcium channels to lipid rafts in adult cardiomyocytes. Cardiovascular Research, 2021, 117, 149-161.	1.8	34
38	Microtubules regulate cardiomyocyte transversal Youngâ€™s modulus. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2764-2766.	3.3	33
39	Cardiomyocyteâ€“myofibroblast contact dynamism is modulated by connexinâ€43. FASEB Journal, 2019, 33, 10453-10468.	0.2	28
40	Î²3-Adrenoceptor redistribution impairs NO/cGMP/PDE2 signalling in failing cardiomyocytes. ELife, 2020, 9, .	2.8	28
41	Functional Characterization of Embryonic Stem Cell-Derived Cardiomyocytes Using Scanning Ion Conductance Microscopy. Tissue Engineering, 2006, 12, 657-664.	4.9	24
42	Angular Approach Scanning Ion Conductance Microscopy. Biophysical Journal, 2016, 110, 2252-2265.	0.2	23
43	Ankyrin-G mediates targeting of both Na+ and KATP channels to the rat cardiac intercalated disc. ELife, 2020, 9, .	2.8	23
44	Junction Mapper is a novel computer vision tool to decipher cellâ€“cell contact phenotypes. ELife, 2019, 8, .	2.8	16
45	Short-term angiotensin II treatment regulates cardiac nanomechanicsviamicrotubule modifications. Nanoscale, 2020, 12, 16315-16329.	2.8	15
46	Nanoscale regulation of L-type calcium channels differentiates between ischemic and dilated cardiomyopathies.. EBioMedicine, 2020, 57, 102845.	2.7	15
47	Ursodeoxycholic acid prevents ventricular conduction slowing and arrhythmia by restoring T-type calcium current in fetuses during cholestasis. PLoS ONE, 2017, 12, e0183167.	1.1	14
48	Partial Mechanical Unloading of the Heart Disrupts L-Type Calcium Channel and Beta-Adrenoceptor Signaling Microdomains. Frontiers in Physiology, 2018, 9, 1302.	1.3	11
49	Age-Dependent Maturation of iPSC-CMs Leads to the Enhanced Compartmentation of Î²2AR-cAMP Signalling. Cells, 2020, 9, 2275.	1.8	10
50	Nanoscale Study of Calcium Handling Remodeling in Right Ventricular Cardiomyocytes Following Pulmonary Hypertension. Hypertension, 2021, 77, 605-616.	1.3	9
51	Studying signal compartmentation in adult cardiomyocytes. Biochemical Society Transactions, 2020, 48, 61-70.	1.6	9
52	Nanoscale, Voltage-Driven Application of Bioactive Substances onto Cells with Organized Topography. Biophysical Journal, 2016, 110, 141-146.	0.2	8
53	A Software Tool for High-Throughput Real-Time Measurement of Intensity-Based Ratio-Metric FRET. Cells, 2019, 8, 1541.	1.8	8
54	Prolonged ursodeoxycholic acid administration reduces acute ischaemia-induced arrhythmias in adult rat hearts. Scientific Reports, 2020, 10, 15284.	1.6	7

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55	Electrophysiological Remodeling: Cardiac T-Tubules and ÃŸ-Adrenoceptors. Cells, 2021, 10, 2456.	1.8	2
56	Function of L-Type Calcium Channel Microdomain in Human Myocytes from Hearts with Ischemic versus Dilated Cardiomyopathies. Biophysical Journal, 2018, 114, 638a.	0.2	1
57	Surface morphology and calcium control in myocytes from a rat MI model of heart failure. Journal of Molecular and Cellular Cardiology, 2008, 44, 750.	0.9	0
58	The use of embryonic stem cell-derived cardiomyocytes as a model to study fetal arrhythmia related to maternal disease. Journal of Molecular and Cellular Cardiology, 2008, 44, 774.	0.9	0
59	Mechanisms of bile acid signalling in cardiomyocytes. Journal of Molecular and Cellular Cardiology, 2008, 44, 774-775.	0.9	0
60	Next Generation SICM Allows Nanoscale Imaging Of Biological Processes In Real-time. Biophysical Journal, 2009, 96, 374a.	0.2	0
61	Microdomain-Specific Remodelling of Autonomic Regulation of L-Type Calcium Channels Revealed by Super-Resolution Scanning Patch Clamp in Rat Atrial Myocytes in Heart Failure. Biophysical Journal, 2016, 110, 450a.	0.2	0
62	Dissecting Function and Distribution of Sodium Channels and GAP Junctional Proteins using Super-Resolution Patch-Clamp. Biophysical Journal, 2018, 114, 202a-203a.	0.2	0
63	PHARMACOLOGICAL CHARACTERISATION OF EMBRYONIC STEM CELL-DERIVED CARDIOMYOCYTE CULTURES. , 2005, , 139-147.		0
64	Central role of AC6 in Î²2 agonist induced relaxation of human airway smooth muscle. , 2016, , .		0
65	Correlating Cardiac Structure to Function Using Nanoscale Resolution Scanning Ion Conductance Microscopy. Bioanalytical Reviews, 2021, , 1.	0.1	0
66	Junctophillin-2: Coupling Hopes for Cardiac Gene Therapy to Gene Transcription. Circulation Research, 2022, 130, 1318-1320.	2.0	0