

Julia V Gorelik

List of Publications by Year in descending order

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66
papers

4,294
citations

126907

33
h-index

149698

56
g-index

69
all docs

69
docs citations

69
times ranked

4148
citing authors

#	ARTICLE	IF	CITATIONS
1	β_2 -Adrenergic Receptor Redistribution in Heart Failure Changes cAMP Compartmentation. <i>Science</i> , 2010, 327, 1653-1657.	12.6	505
2	Nanoscale live-cell imaging using hopping probe ion conductance microscopy. <i>Nature Methods</i> , 2009, 6, 279-281.	19.0	462
3	Loss of T-tubules and other changes to surface topography in ventricular myocytes from failing human and rat heart. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 6854-6859.	7.1	334
4	Cardiac BIN1 folds T-tubule membrane, controlling ion flux and limiting arrhythmia. <i>Nature Medicine</i> , 2014, 20, 624-632.	30.7	203
5	FRET biosensor uncovers cAMP nano-domains at β_2 -adrenergic targets that dictate precise tuning of cardiac contractility. <i>Nature Communications</i> , 2017, 8, 15031.	12.8	166
6	Cell Volume Measurement Using Scanning Ion Conductance Microscopy. <i>Biophysical Journal</i> , 2000, 78, 451-457.	0.5	160
7	The bile acid taurocholate impairs rat cardiomyocyte function: a proposed mechanism for intra-uterine fetal death in obstetric cholestasis. <i>Clinical Science</i> , 2001, 100, 363-369.	4.3	129
8	The structure and function of cardiac t-tubules in health and disease. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2011, 278, 2714-2723.	2.6	121
9	Bile Acid-Induced Arrhythmia Is Mediated by Muscarinic M2 Receptors in Neonatal Rat Cardiomyocytes. <i>PLoS ONE</i> , 2010, 5, e9689.	2.5	109
10	Nanoscale-Targeted Patch-Clamp Recordings of Functional Presynaptic Ion Channels. <i>Neuron</i> , 2013, 79, 1067-1077.	8.1	103
11	Caveolin-3 regulates compartmentation of cardiomyocyte beta2-adrenergic receptor-mediated cAMP signaling. <i>Journal of Molecular and Cellular Cardiology</i> , 2014, 67, 38-48.	1.9	103
12	Plasticity of Surface Structures and β_2 -Adrenergic Receptor Localization in Failing Ventricular Cardiomyocytes During Recovery From Heart Failure. <i>Circulation: Heart Failure</i> , 2012, 5, 357-365.	3.9	102
13	Microdomain-Specific Modulation of L-Type Calcium Channels Leads to Triggered Ventricular Arrhythmia in Heart Failure. <i>Circulation Research</i> , 2016, 119, 944-955.	4.5	101
14	Direct Evidence for Microdomain-Specific Localization and Remodeling of Functional L-Type Calcium Channels in Rat and Human Atrial Myocytes. <i>Circulation</i> , 2015, 132, 2372-2384.	1.6	96
15	Super-resolution Scanning Patch Clamp Reveals Clustering of Functional Ion Channels in Adult Ventricular Myocyte. <i>Circulation Research</i> , 2013, 112, 1112-1120.	4.5	89
16	High-resolution scanning patch-clamp: new insights into cell function. <i>FASEB Journal</i> , 2002, 16, 748-750.	0.5	77
17	Mechanical unloading reverses transverse tubule remodelling and normalizes local Ca^{2+} -induced Ca^{2+} release in a rodent model of heart failure. <i>European Journal of Heart Failure</i> , 2012, 14, 571-580.	7.1	76
18	Nanoscale visualization of functional adhesion/excitability nodes at the intercalated disc. <i>Nature Communications</i> , 2016, 7, 10342.	12.8	76

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19	Prolonged mechanical unloading affects cardiomyocyte excitation-contraction coupling, transverse-tubule structure, and the cell surface. <i>FASEB Journal</i> , 2010, 24, 3321-3329.	0.5	73
20	A protective antiarrhythmic role of ursodeoxycholic acid in an <i>in vitro</i> rat model of the cholestatic fetal heart. <i>Hepatology</i> , 2011, 54, 1282-1292.	7.3	73
21	Role of Shear Stress in Endothelial Cell Morphology and Expression of Cyclooxygenase Isoforms. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2011, 31, 384-391.	2.4	71
22	Transgenic Mice for Real-Time Visualization of cGMP in Intact Adult Cardiomyocytes. <i>Circulation Research</i> , 2014, 114, 1235-1245.	4.5	71
23	Taurocholate induces changes in rat cardiomyocyte contraction and calcium dynamics. <i>Clinical Science</i> , 2002, 103, 191-200.	4.3	67
24	The bile acid taurocholate impairs rat cardiomyocyte function: a proposed mechanism for intra-uterine fetal death in obstetric cholestasis. <i>Clinical Science</i> , 2001, 100, 363.	4.3	62
25	Scanning ion conductance microscopy: a convergent high-resolution technology for multi-parametric analysis of living cardiovascular cells. <i>Journal of the Royal Society Interface</i> , 2011, 8, 913-925.	3.4	61
26	A novel Z-groove index characterizing myocardial surface structure. <i>Cardiovascular Research</i> , 2006, 72, 422-429.	3.8	55
27	T-tubule remodelling disturbs localized β_2 -adrenergic signalling in rat ventricular myocytes during the progression of heart failure. <i>Cardiovascular Research</i> , 2017, 113, 770-782.	3.8	53
28	Cardiomyocyte Membrane Structure and cAMP Compartmentation Produce Anatomical Variation in β_2 AR-cAMP Responsiveness in Murine Hearts. <i>Cell Reports</i> , 2018, 23, 459-469.	6.4	51
29	Bile acids and their respective conjugates elicit different responses in neonatal cardiomyocytes: role of Gi protein, muscarinic receptors and TGR5. <i>Scientific Reports</i> , 2018, 8, 7110.	3.3	50
30	Spatial control of the β_2 AR system in heart failure: the transverse tubule and beyond. <i>Cardiovascular Research</i> , 2013, 98, 216-224.	3.8	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. <i>Circulation Research</i> , 2021, 128, 92-114.	4.5	45
32	The scanning ion conductance microscope for cellular physiology. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2013, 304, H1-H11.	3.2	42
33	Fetal cardiac dysfunction in intrahepatic cholestasis of pregnancy is associated with elevated serum bile acid concentrations. <i>Journal of Hepatology</i> , 2021, 74, 1087-1096.	3.7	38
34	Shape and Compliance of Endothelial Cells after Shear Stress In Vitro or from Different Aortic Regions: Scanning Ion Conductance Microscopy Study. <i>PLoS ONE</i> , 2012, 7, e31228.	2.5	35
35	Cardiomyocyte Ca^{2+} handling and structure is regulated by degree and duration of mechanical load variation. <i>Journal of Cellular and Molecular Medicine</i> , 2012, 16, 2910-2918.	3.6	34
36	The protective effect of ursodeoxycholic acid in an <i>in vitro</i> model of the human fetal heart occurs via targeting cardiac fibroblasts. <i>Progress in Biophysics and Molecular Biology</i> , 2016, 120, 149-163.	2.9	34

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37	Junctophilin-2 tethers T-tubules and recruits functional L-type calcium channels to lipid rafts in adult cardiomyocytes. <i>Cardiovascular Research</i> , 2021, 117, 149-161.	3.8	34
38	Microtubules regulate cardiomyocyte transversal Young's modulus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 2764-2766.	7.1	33
39	Cardiomyocyte-myofibroblast contact dynamism is modulated by connexin43. <i>FASEB Journal</i> , 2019, 33, 10453-10468.	0.5	28
40	β 3-Adrenoceptor redistribution impairs NO/cGMP/PDE2 signalling in failing cardiomyocytes. <i>ELife</i> , 2020, 9, .	6.0	28
41	Functional Characterization of Embryonic Stem Cell-Derived Cardiomyocytes Using Scanning Ion Conductance Microscopy. <i>Tissue Engineering</i> , 2006, 12, 657-664.	4.6	24
42	Angular Approach Scanning Ion Conductance Microscopy. <i>Biophysical Journal</i> , 2016, 110, 2252-2265.	0.5	23
43	Ankyrin-G mediates targeting of both Na ⁺ and KATP channels to the rat cardiac intercalated disc. <i>ELife</i> , 2020, 9, .	6.0	23
44	Junction Mapper is a novel computer vision tool to decipher cell-cell contact phenotypes. <i>ELife</i> , 2019, 8, .	6.0	16
45	Short-term angiotensin II treatment regulates cardiac nanomechanics via microtubule modifications. <i>Nanoscale</i> , 2020, 12, 16315-16329.	5.6	15
46	Nanoscale regulation of L-type calcium channels differentiates between ischemic and dilated cardiomyopathies. <i>EBioMedicine</i> , 2020, 57, 102845.	6.1	15
47	Ursodeoxycholic acid prevents ventricular conduction slowing and arrhythmia by restoring T-type calcium current in fetuses during cholestasis. <i>PLoS ONE</i> , 2017, 12, e0183167.	2.5	14
48	Partial Mechanical Unloading of the Heart Disrupts L-Type Calcium Channel and Beta-Adrenoceptor Signaling Microdomains. <i>Frontiers in Physiology</i> , 2018, 9, 1302.	2.8	11
49	Age-Dependent Maturation of iPSC-CMs Leads to the Enhanced Compartmentation of β 2AR-cAMP Signalling. <i>Cells</i> , 2020, 9, 2275.	4.1	10
50	Nanoscale Study of Calcium Handling Remodeling in Right Ventricular Cardiomyocytes Following Pulmonary Hypertension. <i>Hypertension</i> , 2021, 77, 605-616.	2.7	9
51	Studying signal compartmentation in adult cardiomyocytes. <i>Biochemical Society Transactions</i> , 2020, 48, 61-70.	3.4	9
52	Nanoscale, Voltage-Driven Application of Bioactive Substances onto Cells with Organized Topography. <i>Biophysical Journal</i> , 2016, 110, 141-146.	0.5	8
53	A Software Tool for High-Throughput Real-Time Measurement of Intensity-Based Ratio-Metric FRET. <i>Cells</i> , 2019, 8, 1541.	4.1	8
54	Prolonged ursodeoxycholic acid administration reduces acute ischaemia-induced arrhythmias in adult rat hearts. <i>Scientific Reports</i> , 2020, 10, 15284.	3.3	7

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55	Electrophysiological Remodeling: Cardiac T-Tubules and β -Adrenoceptors. <i>Cells</i> , 2021, 10, 2456.	4.1	2
56	Function of L-Type Calcium Channel Microdomain in Human Myocytes from Hearts with Ischemic versus Dilated Cardiomyopathies. <i>Biophysical Journal</i> , 2018, 114, 638a.	0.5	1
57	Surface morphology and calcium control in myocytes from a rat MI model of heart failure. <i>Journal of Molecular and Cellular Cardiology</i> , 2008, 44, 750.	1.9	0
58	The use of embryonic stem cell-derived cardiomyocytes as a model to study fetal arrhythmia related to maternal disease. <i>Journal of Molecular and Cellular Cardiology</i> , 2008, 44, 774.	1.9	0
59	Mechanisms of bile acid signalling in cardiomyocytes. <i>Journal of Molecular and Cellular Cardiology</i> , 2008, 44, 774-775.	1.9	0
60	Next Generation SICM Allows Nanoscale Imaging Of Biological Processes In Real-time. <i>Biophysical Journal</i> , 2009, 96, 374a.	0.5	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. <i>Biophysical Journal</i> , 2016, 110, 450a.	0.5	0
62	Dissecting Function and Distribution of Sodium Channels and GAP Junctional Proteins using Super-Resolution Patch-Clamp. <i>Biophysical Journal</i> , 2018, 114, 202a-203a.	0.5	0
63	PHARMACOLOGICAL CHARACTERISATION OF EMBRYONIC STEM CELL-DERIVED CARDIOMYOCYTE CULTURES. , 2005, , 139-147.		0
64	Central role of AC6 in β_2 agonist induced relaxation of human airway smooth muscle. , 2016, , .		0
65	Correlating Cardiac Structure to Function Using Nanoscale Resolution Scanning Ion Conductance Microscopy. <i>Bioanalytical Reviews</i> , 2021, , 1.	0.2	0
66	Junctophilin-2: Coupling Hopes for Cardiac Gene Therapy to Gene Transcription. <i>Circulation Research</i> , 2022, 130, 1318-1320.	4.5	0