

Marjan Slak Rupnik

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

96
papers

3,507
citations

33
h-index

57
g-index

105
ext. papers

4,142
ext. citations

4.5
avg, IF

5.29
L-index

#	Paper	IF	Citations
96	Allosteric coupling between transmembrane segment 4 and the selectivity filter of TALK1 potassium channels regulates their gating by extracellular pH.. <i>Journal of Biological Chemistry</i> , 2022 , 101998	5.4	0
95	Autopoietic Influence Hierarchies in Pancreatic β Cells. <i>Physical Review Letters</i> , 2021 , 127, 168101	7.4	3
94	Confocal Laser Scanning Microscopy of Calcium Dynamics in Acute Mouse Pancreatic Tissue Slices. <i>Journal of Visualized Experiments</i> , 2021 ,	1.6	7
93	NMDA receptor inhibition increases, synchronizes, and stabilizes the collective pancreatic beta cell activity: Insights through multilayer network analysis. <i>PLoS Computational Biology</i> , 2021 , 17, e1009002	5	4
92	Dual Mode of Action of Acetylcholine on Cytosolic Calcium Oscillations in Pancreatic Beta and Acinar Cells In Situ. <i>Cells</i> , 2021 , 10,	7.9	3
91	Glucose-dependent activation, activity, and deactivation of beta cell networks in acute mouse pancreas tissue slices. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2021 , 321, E305-E323	6.23	8
90	β Cells Operate Collectively to Help Maintain Glucose Homeostasis. <i>Biophysical Journal</i> , 2020 , 118, 2588-2595	2.95	10
89	COVID-19: Pandemic surgery guidance. <i>4open</i> , 2020 , 3, 1	0.8	33
88	Heterogeneity and Delayed Activation as Hallmarks of Self-Organization and Criticality in Excitable Tissue. <i>Frontiers in Physiology</i> , 2019 , 10, 869	4.6	23
87	Tracking the Evolution of Functional Connectivity Patterns Between Pancreatic Beta Cells with Multilayer Network Formalism. <i>Lecture Notes in Electrical Engineering</i> , 2019 , 16-21	0.2	
86	Random Matrix Analysis of Ca Signals in β -Cell Collectives. <i>Frontiers in Physiology</i> , 2019 , 10, 1194	4.6	3
85	Loosening the shackles of scientific disciplines with network science: Reply to comments on "Network science of biological systems at different scales: A review". <i>Physics of Life Reviews</i> , 2018 , 24, 162-167	2.1	8
84	Collective Sensing of β -Cells Generates the Metabolic Code. <i>Frontiers in Physiology</i> , 2018 , 9, 31	4.6	9
83	Collective Behavior of Social Bots Is Encoded in Their Temporal Twitter Activity. <i>Big Data</i> , 2018 , 6, 113-123	1.33	15
82	Network science of biological systems at different scales: A review. <i>Physics of Life Reviews</i> , 2018 , 24, 118-135	2.1	204
81	SNAP-25b-deficiency increases insulin secretion and changes spatiotemporal profile of Caoscillations in β cell networks. <i>Scientific Reports</i> , 2017 , 7, 7744	4.9	21
80	Increased augmentation index and central systolic arterial pressure are associated with lower school and motor performance in young adolescents. <i>Journal of International Medical Research</i> , 2017 , 45, 1892-1900	1.4	4

79	The triggering pathway to insulin secretion: Functional similarities and differences between the human and the mouse β cells and their translational relevance. <i>Islets</i> , 2017 , 9, 109-139	2	58
78	Critical and Supercritical Spatiotemporal Calcium Dynamics in Beta Cells. <i>Frontiers in Physiology</i> , 2017 , 8, 1106	4.6	23
77	Polyester type polyHIPE scaffolds with an interconnected porous structure for cartilage regeneration. <i>Scientific Reports</i> , 2016 , 6, 28695	4.9	47
76	Single-cell analysis reveals IGF-1 potentiation of inhibition of the TGF- β /Smad pathway of fibrosis in human keratocytes in vitro. <i>Scientific Reports</i> , 2016 , 6, 34373	4.9	15
75	Characterization of pancreatic NMDA receptors as possible drug targets for diabetes treatment. <i>Nature Medicine</i> , 2015 , 21, 363-72	50.5	100
74	Multilayer network representation of membrane potential and cytosolic calcium concentration dynamics in beta cells. <i>Chaos, Solitons and Fractals</i> , 2015 , 80, 76-82	9.3	18
73	HUIEC, Human intestinal epithelial cell line with differentiated properties: process of isolation and characterisation. <i>Wiener Klinische Wochenschrift</i> , 2015 , 127 Suppl 5, S204-9	2.3	11
72	The relationship between node degree and dissipation rate in networks of diffusively coupled oscillators and its significance for pancreatic beta cells. <i>Chaos</i> , 2015 , 25, 073115	3.3	22
71	Progressive glucose stimulation of islet beta cells reveals a transition from segregated to integrated modular functional connectivity patterns. <i>Scientific Reports</i> , 2015 , 5, 7845	4.9	45
70	Membrane Potential and Calcium Dynamics in Beta Cells from Mouse Pancreas Tissue Slices: Theory, Experimentation, and Analysis. <i>Sensors</i> , 2015 , 15, 27393-419	3.8	14
69	Structural similarities and differences between the human and the mouse pancreas. <i>Islets</i> , 2015 , 7, e1024405	157	
68	Platelet-rich plasma, especially when combined with a TGF- β inhibitor promotes proliferation, viability and myogenic differentiation of myoblasts in vitro. <i>PLoS ONE</i> , 2015 , 10, e0117302	3.7	29
67	Using pancreas tissue slices for in situ studies of islet of Langerhans and acinar cell biology. <i>Nature Protocols</i> , 2014 , 9, 2809-22	18.8	68
66	A co-culture model of the developing small intestine offers new insight in the early immunomodulation of enterocytes and macrophages by <i>Lactobacillus</i> spp. through STAT1 and NF- κ B p65 translocation. <i>PLoS ONE</i> , 2014 , 9, e86297	3.7	29
65	Myogenic progenitors and imaging single-cell flow analysis: a model to study commitment of adult muscle stem cells. <i>Journal of Muscle Research and Cell Motility</i> , 2014 , 35, 249-57	3.5	9
64	Size-dependent effects of gold nanoparticles uptake on maturation and antitumor functions of human dendritic cells in vitro. <i>PLoS ONE</i> , 2014 , 9, e96584	3.7	85
63	Measuring Exocytosis in Endocrine Tissue Slices. <i>Neuromethods</i> , 2014 , 127-146	0.4	4
62	Is tissue augmentation a reality in biosurgery? An experimental study of endothelial cell invasion into tissue filler. <i>International Wound Journal</i> , 2013 , 10, 321-8	2.6	3

61	ATP regulates sodium channel kinetics in pancreatic islet beta cells. <i>Journal of Membrane Biology</i> , 2013 , 246, 101-7	2.3	13
60	In situ electrophysiological examination of pancreatic β cells in the streptozotocin-induced diabetes model, revealing the cellular basis of glucagon hypersecretion. <i>Diabetes</i> , 2013 , 62, 519-30	0.9	39
59	Rab3a ablation related changes in morphology of secretory vesicles in major endocrine pancreatic cells, pituitary melanotroph cells and adrenal gland chromaffin cells in mice. <i>General and Comparative Endocrinology</i> , 2013 , 185, 67-79	3	6
58	Functional connectivity in islets of Langerhans from mouse pancreas tissue slices. <i>PLoS Computational Biology</i> , 2013 , 9, e1002923	5	100
57	The relationship between membrane potential and calcium dynamics in glucose-stimulated beta cell syncytium in acute mouse pancreas tissue slices. <i>PLoS ONE</i> , 2013 , 8, e82374	3.7	44
56	Glucose-stimulated calcium dynamics in islets of Langerhans in acute mouse pancreas tissue slices. <i>PLoS ONE</i> , 2013 , 8, e54638	3.7	61
55	Rab3a is critical for trapping alpha-MSH granules in the high Ca^{2+} -affinity pool by preventing constitutive exocytosis. <i>PLoS ONE</i> , 2013 , 8, e78883	3.7	5
54	Visualising the Attributes of Biological Cells, Based on Human Perception. <i>Lecture Notes in Computer Science</i> , 2013 , 386-399	0.9	
53	AMPA receptors regulate exocytosis and insulin release in pancreatic β cells. <i>Traffic</i> , 2012 , 13, 1124-39	5.7	20
52	Correlations between beta-cells calcium dynamics reveal differences in functional connectivity patterns in islets of Langerhans from pancreas tissue slices under low and high levels of glucose 2012 ,		1
51	Age-dependent changes in the exocytotic efficacy in Kir6.2 ablated mouse pancreatic β cells. <i>Open Journal of Molecular and Integrative Physiology</i> , 2012 , 02, 51-60	1	3
50	Negative impact of endocrine-disrupting compounds on human reproductive health. <i>Reproduction, Fertility and Development</i> , 2011 , 23, 403-16	1.8	142
49	Unperturbed islet β cell function examined in mouse pancreas tissue slices. <i>Journal of Physiology</i> , 2011 , 589, 395-408	3.9	50
48	cAMP increases the sensitivity of exocytosis to Ca^{2+} primarily through protein kinase A in mouse pancreatic beta cells. <i>Cell Calcium</i> , 2011 , 49, 89-99	4	42
47	Munc18-1 and Munc18-2 proteins modulate beta-cell Ca^{2+} sensitivity and kinetics of insulin exocytosis differently. <i>Journal of Biological Chemistry</i> , 2011 , 286, 28026-40	5.4	26
46	Donor islet endothelial cells in pancreatic islet revascularization. <i>Diabetes</i> , 2011 , 60, 2571-7	0.9	87
45	Bone morphogenetic protein 3 controls insulin gene expression and is down-regulated in INS-1 cells inducibly expressing a hepatocyte nuclear factor 1A-maturity-onset diabetes of the young mutation. <i>Journal of Biological Chemistry</i> , 2011 , 286, 25719-28	5.4	12
44	Pancreatic beta cell lines and their applications in diabetes mellitus research. <i>ALTEX: Alternatives To Animal Experimentation</i> , 2010 , 27, 105-13	4.3	163

43	Prevalence of stochasticity in experimentally observed responses of pancreatic acinar cells to acetylcholine. <i>Chaos</i> , 2009 , 19, 037113	3.3	43
42	All together now: exocytose or fail. <i>Islets</i> , 2009 , 1, 78-80	2	4
41	Intracellular serotonin modulates insulin secretion from pancreatic beta-cells by protein serotonylation. <i>PLoS Biology</i> , 2009 , 7, e1000229	9.7	235
40	The physiology of rodent beta-cells in pancreas slices. <i>Acta Physiologica</i> , 2009 , 195, 123-38	5.6	15
39	Phosphatidylinositol-4,5-bisphosphate-dependent facilitation of the ATP-dependent secretory activity in mouse pituitary cells. <i>Annals of the New York Academy of Sciences</i> , 2009 , 1152, 165-73	6.5	1
38	Exocytosis of insulin: in vivo maturation of mouse endocrine pancreas. <i>Annals of the New York Academy of Sciences</i> , 2009 , 1152, 53-62	6.5	36
37	The regulated exocytosis of enlargeosomes is mediated by a SNARE machinery that includes VAMP4. <i>Journal of Cell Science</i> , 2008 , 121, 2983-91	5.3	47
36	Cyclin-Dependent Kinase 5 and Insulin Secretion 2008 , 145-158		
35	Distinct role of Rab3A and Rab3B in secretory activity of rat melanotrophs. <i>American Journal of Physiology - Cell Physiology</i> , 2007 , 292, C98-105	5.4	27
34	Ca ²⁺ -secretion coupling is impaired in diabetic Goto Kakizaki rats. <i>Journal of General Physiology</i> , 2007 , 129, 493-508	3.4	48
33	Cx36-mediated coupling reduces beta-cell heterogeneity, confines the stimulating glucose concentration range, and affects insulin release kinetics. <i>Diabetes</i> , 2007 , 56, 1078-86	0.9	137
32	Important contribution of alpha-neurexins to Ca ²⁺ -triggered exocytosis of secretory granules. <i>Journal of Neuroscience</i> , 2006 , 26, 10599-613	6.6	45
31	Glutamate stimulation increases hormone release in rat melanotrophs. <i>Neuroscience Letters</i> , 2006 , 404, 299-302	3.3	7
30	KATP-channels in beta-cells in tissue slices are directly modulated by millimolar ATP. <i>Molecular and Cellular Endocrinology</i> , 2005 , 230, 51-8	4.4	35
29	Endocytosis-dominated membrane area decrease requires Rab5 protein in rat melanotrophs. <i>Annals of the New York Academy of Sciences</i> , 2005 , 1048, 272-80	6.5	3
28	Cytosolic Cl ⁻ ions in the regulation of secretory and endocytotic activity in melanotrophs from mouse pituitary tissue slices. <i>Journal of Physiology</i> , 2005 , 566, 443-53	3.9	16
27	cAMP increases Ca ²⁺ -dependent exocytosis through both PKA and Epac2 in mouse melanotrophs from pituitary tissue slices. <i>Journal of Physiology</i> , 2005 , 567, 799-813	3.9	54
26	Block of delayed-rectifier potassium channels by reduced haloperidol and related compounds in mouse cortical neurons. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2005 , 315, 352-62	4.7	10

25	Characterization of the cleavage site and function of resulting cleavage fragments after limited proteolysis of Clostridium difficile toxin B (TcdB) by host cells. <i>Microbiology (United Kingdom)</i> , 2005 , 151, 199-208	2.9	83
24	Embryonic stem cells differentiate into insulin-producing cells without selection of nestin-expressing cells. <i>International Journal of Developmental Biology</i> , 2004 , 48, 1095-104	1.9	89
23	Enlargeosome, an exocytic vesicle resistant to nonionic detergents, undergoes endocytosis via a nonacidic route. <i>Molecular Biology of the Cell</i> , 2004 , 15, 5356-68	3.5	40
22	Inhibition of ATP-sensitive potassium channels by haloperidol. <i>British Journal of Pharmacology</i> , 2004 , 143, 960-7	8.6	18
21	Voltage-activated Ca(2+) channels and their role in the endocrine function of the pituitary gland in newborn and adult mice. <i>Journal of Physiology</i> , 2004 , 555, 769-82	3.9	28
20	In vivo and in vitro development of mouse pancreatic beta-cells in organotypic slices. <i>Cell and Tissue Research</i> , 2004 , 316, 295-303	4.2	28
19	Properties of Ca(2+)-dependent exocytosis in cultured astrocytes. <i>Glia</i> , 2004 , 46, 437-45	9	154
18	Ammodytoxin, a neurotoxic secreted phospholipase A(2), can act in the cytosol of the nerve cell. <i>Biochemical and Biophysical Research Communications</i> , 2004 , 324, 981-5	3.4	33
17	A novel approach to in situ characterization of pancreatic beta-cells. <i>Pflugers Archiv European Journal of Physiology</i> , 2003 , 446, 553-8	4.6	76
16	Cardiovascular physiology: simulation of steady state and transient phenomena by using the equivalent electronic circuit. <i>Computer Methods and Programs in Biomedicine</i> , 2002 , 67, 1-12	6.9	22
15	Modeling excess retrieval in rat melanotroph membrane capacitance records. <i>Biophysical Journal</i> , 2002 , 82, 226-32	2.9	10
14	. <i>IEEE Transactions on Education</i> , 2001 , 44, 384-389	2.1	8
13	INTERGRANULE FUSION IN RAT PARS INTERMEDIA CELLS. <i>Image Analysis and Stereology</i> , 2001 , 20, 79	1	2
12	Rapid regulated dense-core vesicle exocytosis requires the CAPS protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000 , 97, 5627-32	11.5	72
11	Cathophoresis paint insulated carbon fibre ultramicro disc electrode and its application to in vivo amperometric monitoring of quantal secretion from single rat melanotrophs. <i>Analytica Chimica Acta</i> , 1999 , 378, 135-143	6.6	30
10	Mediation of Secretory Cell Function by G Protein-Coupled Receptors 1998 , 69-85		
9	Mastoparan and Rab3AL peptide potentiation of calcium-independent secretory activity in rat melanotrophs is inhibited by GDPbetaS. <i>FEBS Letters</i> , 1997 , 411, 356-8	3.8	3
8	Osmotic swelling of hepatocytes increases membrane conductance but not membrane capacitance. <i>Biophysical Journal</i> , 1995 , 68, 1359-63	2.9	31

7	Intracellular Cl ⁻ modulates Ca ²⁺ -induced exocytosis from rat melanotrophs through GTP-binding proteins. <i>Pflugers Archiv European Journal of Physiology</i> , 1995 , 431, 76-83	4.6	25
6	Brefeldin A and a synthetic peptide to ADP-ribosylation factor (ARF) inhibit regulated exocytosis in melanotrophs. <i>NeuroReport</i> , 1995 , 6, 853-6	1.7	14
5	Raising the cytosolic Ca ²⁺ concentration increases the membrane capacitance of maize coleoptile protoplasts: Evidence for Ca ²⁺ -stimulated exocytosis. <i>Planta</i> , 1994 , 195, 305	4.7	23
4	Increased cytosolic chloride affects depolarization-induced changes in membrane capacitance and cytosolic calcium activity in rat melanotrophs. <i>Annals of the New York Academy of Sciences</i> , 1994 , 710, 319-27	6.5	2
3	Cytosolic chloride ions stimulate Ca(2+)-induced exocytosis in melanotrophs. <i>FEBS Letters</i> , 1992 , 303, 221-3	3.8	43
2	Glucose-dependent activation, activity, and deactivation of beta cell networks in acute mouse pancreas tissue slices		1
1	Intracellular Ca ²⁺ channels initiate physiological glucose signaling in beta cells examined in situ		2