Michele Solimena

List of Publications by Year
in descending order

113 papers	9,211 citations	57631 44 h-index	42291 92 g-index
127 all docs	127 docs citations	127 times ranked	10161 citing authors

#	Article	IF	Citations
1	Identification of the 64K autoantigen in insulin-dependent diabetes as the GABA-synthesizing enzyme glutamic acid decarboxylase. Nature, 1990, 347, 151-156.	13.7	1,675
2	Content-aware image restoration: pushing the limits of fluorescence microscopy. Nature Methods, 2018, 15, 1090-1097.	9.0	758
3	Autoantibodies to GABA-ergic Neurons and Pancreatic Beta Cells in Stiff-Man Syndrome. New England Journal of Medicine, 1990, 322, 1555-1560.	13.9	684
4	An enzymatic cascade of Rab5 effectors regulates phosphoinositide turnover in the endocytic pathway. Journal of Cell Biology, 2005, 170, 607-618.	2.3	354
5	Autoantibodies to a 128-kd Synaptic Protein in Three Women with the Stiff-Man Syndrome and Breast Cancer. New England Journal of Medicine, 1993, 328, 546-551.	13.9	327
6	Transplantation of human islets without immunosuppression. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19054-19058.	3.3	261
7	Î²iv Spectrin, a New Spectrin Localized at Axon Initial Segments and Nodes of Ranvier in the Central and Peripheral Nervous System. Journal of Cell Biology, 2000, 151, 985-1002.	2.3	242
8	Autoimmunity to Gephyrin in Stiff-Man Syndrome. Neuron, 2000, 26, 307-312.	3.8	195
9	Autoimmunity to glutamic acid decarboxylase (GAD) in stiffman syndrome and insulin-dependent diabetes mellitus. Trends in Neurosciences, 1991, 14, 452-457.	4.2	177
10	The insulin secretory granule as a signaling hub. Trends in Endocrinology and Metabolism, 2010, 21, 599-609.	3.1	163
11	Polypyrimidine tract-binding protein promotes insulin secretory granule biogenesis. Nature Cell Biology, 2004, 6, 207-214.	4.6	155
12	MFR, a Putative Receptor Mediating the Fusion of Macrophages. Molecular and Cellular Biology, 1998, 18, 6213-6223.	1.1	139
13	Autoimmunity in Stiff-Man Syndrome with breast cancer is targeted to the C-terminal region of human amphiphysin, a protein similar to the yeast proteins, Rvs167 and Rvs161. FEBS Letters, 1994, 351, 73-79.	1.3	137
14	Systems biology of the IMIDIA biobank from organ donors and pancreatectomised patients defines a novel transcriptomic signature of islets from individuals with type 2 diabetes. Diabetologia, 2018, 61, 641-657.	2.9	131
15	ÂIV Spectrins Are Essential for Membrane Stability and the Molecular Organization of Nodes of Ranvier. Journal of Neuroscience, 2004, 24, 7230-7240.	1.7	125
16	Î²IVÎ£1 spectrin stabilizes the nodes of Ranvier and axon initial segments. Journal of Cell Biology, 2004, 166, 983-990.	2.3	124
17	Viral infiltration of pancreatic islets in patients with COVID-19. Nature Communications, 2021, 12, 3534.	5.8	120
18	Sudden death and paroxysmal autonomic dysfunction in stiff-man syndrome. Journal of Neurology, 1991, 238, 91-96.	1.8	105

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19	The Complement Anaphylatoxin C5a Receptor Contributes to Obese Adipose Tissue Inflammation and Insulin Resistance. Journal of Immunology, 2013, 191, 4367-4374.	0.4	97
20	Adaptive Lipid Packing and Bioactivity in Membrane Domains. PLoS ONE, 2015, 10, e0123930.	1.1	96
21	Using pancreas tissue slices for in situ studies of islet of Langerhans and acinar cell biology. Nature Protocols, 2014, 9, 2809-2822.	5.5	94
22	Dysfunction of Persisting Î² Cells Is a Key Feature of Early Type 2 Diabetes Pathogenesis. Cell Reports, 2020, 31, 107469.	2.9	93
23	Favorable outcome of experimental islet xenotransplantation without immunosuppression in a nonhuman primate model of diabetes. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11745-11750.	3.3	85
24	Biogenesis of secretory granules. Current Opinion in Cell Biology, 2006, 18, 365-370.	2.6	82
25	An open-access volume electron microscopy atlas of whole cells and tissues. Nature, 2021, 599, 147-151.	13.7	80
26	Multi-omics profiling of living human pancreatic islet donors reveals heterogeneous beta cell trajectories towards type 2 diabetes. Nature Metabolism, 2021, 3, 1017-1031.	5.1	76
27	cAMP-dependent phosphorylation of PTB1 promotes the expression of insulin secretory granule proteins in Î² cells. Cell Metabolism, 2006, 3, 123-134.	7.2	75
28	Pancreas islets in metabolic signaling - focus on the beta-cell. Frontiers in Bioscience - Landmark, 2008, Volume, 7156.	3.0	75
29	Targeting of the 67-kDa Isoform of Glutamic Acid Decarboxylase to Intracellular Organelles Is Mediated by Its Interaction with the NH2-terminal Region of the 65-kDa Isoform of Glutamic Acid Decarboxylase. Journal of Biological Chemistry, 1995, 270, 2241-2246.	1.6	74
30	STEP₆₁: A Member of a Family of Brain-Enriched PTPs Is Localized to the Endoplasmic Reticulum. Journal of Neuroscience, 1996, 16, 7821-7831.	1.7	74
31	Synergy of glucose and growth hormone signalling in islet cells through ICA512 and STAT5. Nature Cell Biology, 2006, 8, 435-445.	4.6	74
32	Nuclear translocation of an ICA512 cytosolic fragment couples granule exocytosis and insulin expression in Î²-cells. Journal of Cell Biology, 2004, 167, 1063-1074.	2.3	70
33	A human beta cell line with drug inducible excision of immortalizing transgenes. Molecular Metabolism, 2015, 4, 916-925.	3.0	69
34	Vessel Network Architecture of Adult Human Islets Promotes Distinct Cell-Cell Interactions In Situ and Is Altered After Transplantation. Endocrinology, 2017, 158, 1373-1385.	1.4	65
35	Persistent or Transient Human Î² Cell Dysfunction Induced by Metabolic Stress: Specific Signatures and Shared Gene Expression with Type 2 Diabetes. Cell Reports, 2020, 33, 108466.	2.9	65
36	3D FIB-SEM reconstruction of microtubuleâ€“organelle interaction in whole primary mouse Î² cells. Journal of Cell Biology, 2021, 220, .	2.3	64

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37	Aged insulin granules display reduced microtubule-dependent mobility and are disposed within actin-positive multigranular bodies. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E667-76.	3.3	63
38	The RNA-binding protein PTBP1 is necessary for B cell selection in germinal centers. Nature Immunology, 2018, 19, 267-278.	7.0	63
39	Decreased STARD10 Expression Is Associated with Defective Insulin Secretion in Humans and Mice. American Journal of Human Genetics, 2017, 100, 238-256.	2.6	60
40	Novel standards in the measurement of rat insulin granules combining electron microscopy, high-content image analysis and in silico modelling. Diabetologia, 2012, 55, 1013-1023.	2.9	59
41	The receptor tyrosine phosphatase-like protein ICA512 binds the PDZ domains of Î²2-syntrophin and nNOS in pancreatic Î²-cells. European Journal of Cell Biology, 2000, 79, 621-630.	1.6	58
42	Age-Dependent Labeling and Imaging of Insulin Secretory Granules. Diabetes, 2013, 62, 3687-3696.	0.3	58
43	ICA512 signaling enhances pancreatic Î²-cell proliferation by regulating cyclins D through STATs. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 674-679.	3.3	53
44	Virus-like infection induces human Î² cell dedifferentiation. JCI Insight, 2018, 3, .	2.3	53
45	Tamoxifen-Independent Recombination in the RIP-CreER Mouse. PLoS ONE, 2010, 5, e13533.	1.1	51
46	Human Stiff-Person Syndrome IgG Induces Anxious Behavior in Rats. PLoS ONE, 2011, 6, e16775.	1.1	50
47	ICA69 is a novel Rab2 effector regulating ERâ€“Golgi trafficking in insulinoma cells. European Journal of Cell Biology, 2008, 87, 197-209.	1.6	48
48	The making of insulin in health and disease. Diabetologia, 2020, 63, 1981-1989.	2.9	48
49	Metabolic implications of pancreatic fat accumulation. Nature Reviews Endocrinology, 2022, 18, 43-54.	4.3	46
50	PTBP1 Is Required for Embryonic Development before Gastrulation. PLoS ONE, 2011, 6, e16992.	1.1	44
51	Post-translational modifications of ICA512, a receptor tyrosine phosphatase-like protein of secretory granules. European Journal of Neuroscience, 1999, 11, 2609-2620.	1.2	43
52	Mechanisms of Beta Cell Dysfunction Associated With Viral Infection. Current Diabetes Reports, 2015, 15, 73.	1.7	43
53	A Global Approach for Quantitative Super Resolution and Electron Microscopy on Cryo and Epoxy Sections Using Self-labeling Protein Tags. Scientific Reports, 2017, 7, 23.	1.6	43
54	The Expression of Aldolase B in Islets Is Negatively Associated With Insulin Secretion in Humans. Journal of Clinical Endocrinology and Metabolism, 2018, 103, 4373-4383.	1.8	42

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55	MiR-132 controls pancreatic beta cell proliferation and survival through Pten/Akt/Foxo3 signaling. Molecular Metabolism, 2020, 31, 150-162.	3.0	41
56	Î²2-Syntrophin Is a Cdk5 Substrate That Restrains the Motility of Insulin Secretory Granules. PLoS ONE, 2010, 5, e12929.	1.1	40
57	PTBP1 is required for glucose-stimulated cap-independent translation of insulin granule proteins and Coxsackieviruses in beta cells. Molecular Metabolism, 2014, 3, 518-530.	3.0	39
58	Regulation of Î²-cell function by RNA-binding proteins. Molecular Metabolism, 2013, 2, 348-355.	3.0	36
59	Islet Cell Autoantigen of 69 kDa Is an Arfaptin-related Protein Associated with the Golgi Complex of Insulinoma INS-1 Cells. Journal of Biological Chemistry, 2003, 278, 26166-26173.	1.6	33
60	Regulation of Insulin Granule Turnover in Pancreatic Î²-Cells by Cleaved ICA512. Journal of Biological Chemistry, 2008, 283, 33719-33729.	1.6	32
61	CDK5 Regulatory Subunit-associated Protein 1-Like 1 (CDKAL1) Is a Tail-anchored Protein in the Endoplasmic Reticulum (ER) of Insulinoma Cells. Journal of Biological Chemistry, 2012, 287, 41808-41819.	1.6	31
62	Genetics of susceptibility and resistance to insulin-dependent diabetes in stiff-man syndrome. Lancet, The, 1994, 344, 1027-1028.	6.3	30
63	Spotlight on a neuronal enzyme. Nature, 1993, 366, 15-17.	13.7	29
64	GAD, diabetes, and Stiff-Man syndrome: Some progress and more questions. Journal of Endocrinological Investigation, 1994, 17, 509-520.	1.8	29
65	Automated suppression of sample-related artifacts in Fluorescence Correlation Spectroscopy. Optics Express, 2010, 18, 11073.	1.7	26
66	Laser capture microdissection of human pancreatic islets reveals novel eQTLs associated with type 2 diabetes. Molecular Metabolism, 2019, 24, 98-107.	3.0	26
67	Coxsackieviruses and diabetes. Nature Medicine, 1995, 1, 25-26.	15.2	25
68	Atp6ap2 deletion causes extensive vacuolation that consumes the insulin content of pancreatic Î² cells. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19983-19988.	3.3	23
69	The type 2 diabetes gene product STARD10 is a phosphoinositide-binding protein that controls insulin secretory granule biogenesis. Molecular Metabolism, 2020, 40, 101015.	3.0	22
70	Vesicular autoantigens of Type 1 diabetes. , 1998, 14, 227-240.		21
71	Cholesterolâ€enriched membrane rafts and insulin secretion. Journal of Diabetes Investigation, 2012, 3, 339-346.	1.1	21
72	A 4D view on insulin secretory granule turnover in the Î²â€cell. Diabetes, Obesity and Metabolism, 2017, 19, 107-114.	2.2	21

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73	Melatonin promotes regeneration of injured motor axons via MT₁ receptors. Journal of Pineal Research, 2021, 70, e12695.	3.4	21
74	Impaired insulin turnover in islets from type 2 diabetic patients. Islets, 2010, 2, 30-36.	0.9	20
75	Effect of Oxygenated Perfluorocarbons on Isolated Rat Pancreatic Islets in Culture. Cell Transplantation, 2005, 14, 441-448.	1.2	19
76	Improved Protocol For Laser Microdissection Of Human Pancreatic Islets From Surgical Specimens. Journal of Visualized Experiments, 2013, , .	0.2	19
77	The F-actin modifier villin regulates insulin granule dynamics and exocytosis downstream of islet cell autoantigen 512. Molecular Metabolism, 2016, 5, 656-668.	3.0	19
78	Î²â€Cells at the crossroads: choosing between insulin granule production and proliferation. Diabetes, Obesity and Metabolism, 2009, 11, 54-64.	2.2	17
79	Aldehyde dehydrogenase activity is necessary for beta cell development and functionality in mice. Diabetologia, 2016, 59, 139-150.	2.9	17
80	Plasma triacylglycerols are biomarkers of Î²-cell function in mice and humans. Molecular Metabolism, 2021, 54, 101355.	3.0	17
81	Molecular dissection of regulated secretory pathways in human gastric enterochromaffin-like cells: an immunohistochemical analysis. Histochemistry and Cell Biology, 1999, 112, 205-214.	0.8	16
82	A Spatial Model of Insulinâ€Granule Dynamics in Pancreatic Î²â€Cells. Traffic, 2015, 16, 797-813.	1.3	16
83	Blood Glucose Homeostasis in the Course of Partial Pancreatectomy â€“ Evidence for Surgically Reversible Diabetes Induced by Cholestasis. PLoS ONE, 2015, 10, e0134140.	1.1	16
84	Development of a new mouse model for coxsackievirus-induced myocarditis by attenuating coxsackievirus B3 virulence in the pancreas. Cardiovascular Research, 2020, 116, 1756-1766.	1.8	16
85	Secretory granules: and the last shall be firstâ€¦. Trends in Cell Biology, 2003, 13, 399-402.	3.6	15
86	Rapid Changes of mRNA-binding Protein Levels following Glucose and 3-Isobutyl-1-methylxanthine Stimulation of Insulinoma INS-1 Cells. Molecular and Cellular Proteomics, 2009, 8, 393-408.	2.5	14
87	Sequence Variation in Promoter of Ica1 Gene, Which Encodes Protein Implicated in Type 1 Diabetes, Causes Transcription Factor Autoimmune Regulator (AIRE) to Increase Its Binding and Down-regulate Expression. Journal of Biological Chemistry, 2012, 287, 17882-17893.	1.6	14
88	Detection of recombinant and endogenous mouse melatonin receptors by monoclonal antibodies targeting the Câ€terminal domain. Journal of Pineal Research, 2019, 66, e12540.	3.4	14
89	miR-375- and miR-1-Regulated Coxsackievirus B3 Has No Pancreas and Heart Toxicity But Strong Antitumor Efficiency in Colorectal Carcinomas. Human Gene Therapy, 2021, 32, 216-230.	1.4	14
90	Stability of proICA512/IA-2 and Its Targeting to Insulin Secretory Granules Require Î²4-Sheet-Mediated Dimerization of Its Ectodomain in the Endoplasmic Reticulum. Molecular and Cellular Biology, 2015, 35, 914-927.	1.1	13

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91	Fostering improved human islet research: a European perspective. Diabetologia, 2019, 62, 1514-1516.	2.9	13
92	Metabolically phenotyped pancreatectomized patients as living donors for the study of islets in health and diabetes. Molecular Metabolism, 2019, 27, S1-S6.	3.0	12
93	Functional assessment of automatically sorted pancreatic islets using large particle flow cytometry. Islets, 2011, 3, 267-270.	0.9	10
94	Effects of immunosuppression on alpha and beta cell renewal in transplanted mouse islets. Diabetologia, 2013, 56, 1596-1604.	2.9	10
95	Biochemical, biophysical, and functional properties of ICA512/IA-2 RESP18 homology domain. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2016, 1864, 511-522.	1.1	10
96	ICA512 RESP18 homology domain is a protein-condensing factor and insulin fibrillation inhibitor. Journal of Biological Chemistry, 2019, 294, 8564-8576.	1.6	10
97	MiRâ€375â€mediated suppression of engineered coxsackievirus B3 in pancreatic cells. FEBS Letters, 2020, 594, 763-775.	1.3	9
98	Circadian, Sleep and Caloric Intake Phenotyping in Type 2 Diabetes Patients With Rare Melatonin Receptor 2 Mutations and Controls: A Pilot Study. Frontiers in Physiology, 2020, 11, 564140.	1.3	9
99	Polymorphism rs11085226 in the Gene Encoding Polypyrimidine Tract-Binding Protein 1 Negatively Affects Glucose-Stimulated Insulin Secretion. PLoS ONE, 2012, 7, e46154.	1.1	8
100	X-ray structure of the mature ectodomain of phogrin. Journal of Structural and Functional Genomics, 2015, 16, 1-9.	1.2	8
101	Sequential in vivo labeling of insulin secretory granule pools inINS-SNAPtransgenic pigs. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	7
102	Protein-Protein Interactions in Crystals of the Human Receptor-Type Protein Tyrosine Phosphatase ICA512 Ectodomain. PLoS ONE, 2011, 6, e24191.	1.1	6
103	From Th1 to Th2: Diabetes immunotherapy shifts gears. Nature Medicine, 1996, 2, 1311-1312.	15.2	5
104	Isolation of Human Islets from Partially Pancreatectomized Patients. Journal of Visualized Experiments, 2011, , .	0.2	5
105	The German Gestational Diabetes Study (PREG), a prospective multicentre cohort study: rationale, methodology and design. BMJ Open, 2022, 12, e058268.	0.8	5
106	Insulin Release: Shedding Light on a Complex Matter. Cell Metabolism, 2010, 12, 5-6.	7.2	4
107	Chromatin 3D interaction analysis of the STARD10 locus unveils FCHSD2 as a regulator of insulin secretion. Cell Reports, 2021, 34, 108703.	2.9	4
108	PTBP1 promotes hematopoietic stem cell maintenance and red blood cell development by ensuring sufficient availability of ribosomal constituents. Cell Reports, 2022, 39, 110793.	2.9	3

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109	Synaptic Autoimmunity and the Salk Factor. Neuron, 2000, 28, 309-316.	3.8	2
110	The Impact of Pancreatic Head Resection on Blood Glucose Homeostasis in Patients with Chronic Pancreatitis. Journal of Clinical Medicine, 2022, 11, 663.	1.0	2
111	Pancreas islets in metabolic signaling - focus on the Î²-cell. Nature Precedings, 2008, , .	0.1	1
112	Pancreas islets in metabolic signaling - focus on the &946;-cell. Nature Precedings, 2008, , .	0.1	0
113	The splice factor PTBP1 regulates hematopoietic stem cell function and red blood cell development. Experimental Hematology, 2016, 44, S95-S96.	0.2	0