Ana J GarcÃ-a-SÃ¡ez

List of Publications by Year
in descending order

98 papers	9,491 citations	71102 41 h-index	40979 93 g-index
105 all docs	105 docs citations	105 times ranked	12943 citing authors

#	Article	IF	Citations
1	Molecular mechanisms of cell death: recommendations of the Nomenclature Committee on Cell Death 2018. Cell Death and Differentiation, 2018, 25, 486-541.	11.2	4,036
2	Bax, Bak and beyond â€" mitochondrial performance in apoptosis. FEBS Journal, 2018, 285, 416-431.	4.7	539
3	Effect of Line Tension on the Lateral Organization of Lipid Membranes. Journal of Biological Chemistry, 2007, 282, 33537-33544.	3.4	352
4	Bax assembly into rings and arcs in apoptotic mitochondria is linked to membrane pores. EMBO Journal, 2016, 35, 389-401.	7.8	245
5	Structural Model of Active Bax at the Membrane. Molecular Cell, 2014, 56, 496-505.	9.7	190
6	Bax and Bak Pores: Are We Closing the Circle?. Trends in Cell Biology, 2017, 27, 266-275.	7.9	154
7	Mitochondrial alterations in apoptosis. Chemistry and Physics of Lipids, 2014, 181, 62-75.	3.2	142
8	Bax monomers form dimer units in the membrane that further self-assemble into multiple oligomeric species. Nature Communications, 2015, 6, 8042.	12.8	140
9	Ferroptotic pores induce Ca2+ fluxes and ESCRT-III activation to modulate cell death kinetics. Cell Death and Differentiation, 2021, 28, 1644-1657.	11.2	132
10	Pore Formation by a Bax-Derived Peptide: Effect on the Line Tension of the Membrane Probed by AFM. Biophysical Journal, 2007, 93, 103-112.	0.5	128
11	Proapoptotic Bax and Bak Proteins Form Stable Protein-permeable Pores of Tunable Size. Journal of Biological Chemistry, 2013, 288, 33241-33252.	3.4	127
12	Equinatoxin II Permeabilizing Activity Depends on the Presence of Sphingomyelin and Lipid Phase Coexistence. Biophysical Journal, 2008, 95, 691-698.	0.5	125
13	Cardiolipin Effects on Membrane Structure and Dynamics. Langmuir, 2013, 29, 15878-15887.	3.5	124
14	Membrane-Insertion Fragments of Bcl-xL, Bax, and Bidâ€. Biochemistry, 2004, 43, 10930-10943.	2.5	121
15	Membrane promotes tBID interaction with BCLXL. Nature Structural and Molecular Biology, 2009, 16, 1178-1185.	8.2	116
16	Pore formation in regulated cell death. EMBO Journal, 2020, 39, e105753.	7.8	114
17	Necroptosis Execution Is Mediated by Plasma Membrane Nanopores Independent of Calcium. Cell Reports, 2017, 19, 175-187.	6.4	101
18	Peptides corresponding to helices 5 and 6 of Bax can independently form large lipid pores. FEBS Journal, 2006, 273, 971-981.	4.7	97

#	ARTICLE	IF	CITATIONS
19	Yeast Lipids Can Phase-separate into Micrometer-scale Membrane Domains. Journal of Biological Chemistry, 2010, 285, 30224-30232.	3.4	96
20	Phosphatidylinositol 4,5-Bisphosphate (PI(4,5)P2)-dependent Oligomerization of Fibroblast Growth Factor 2 (FGF2) Triggers the Formation of a Lipidic Membrane Pore Implicated in Unconventional Secretion. Journal of Biological Chemistry, 2012, 287, 27659-27669.	3.4	96
21	Peptides Derived from Apoptotic Bax and Bid Reproduce the Poration Activity of the Parent Full-Length Proteins. Biophysical Journal, 2005, 88, 3976-3990.	0.5	91
22	Apoptosis regulation at the mitochondria membrane level. Biochimica Et Biophysica Acta - Biomembranes, 2021, 1863, 183716.	2.6	91
23	Fluorescence correlation spectroscopy for the study of membrane dynamics and protein/lipid interactions. Methods, 2008, 46, 116-122.	3.8	86
24	The interplay between BAX and BAK tunes apoptotic pore growth to control mitochondrial-DNA-mediated inflammation. Molecular Cell, 2022, 82, 933-949.e9.	9.7	81
25	Pores Formed by BaxÎ±5 Relax to a Smaller Size and Keep at Equilibrium. Biophysical Journal, 2010, 99, 2917-2925.	0.5	77
26	Mechanistic Differences in the Membrane Activity of Bax and Bcl-xL Correlate with Their Opposing Roles in Apoptosis. Biophysical Journal, 2013, 104, 421-431.	0.5	74
27	BCLâ€2â€family protein tBID can act as a BAXâ€like effector of apoptosis. EMBO Journal, 2022, 41, e108690.	7.8	74
28	All-or-None versus Graded: Single-Vesicle Analysis Reveals Lipid Composition Effects on Membrane Permeabilization. Biophysical Journal, 2010, 99, 3619-3628.	0.5	71
29	A Single Herpesvirus Protein Can Mediate Vesicle Formation in the Nuclear Envelope. Journal of Biological Chemistry, 2015, 290, 6962-6974.	3.4	70
30	More Than a Pore: The Interplay of Pore-Forming Proteins and Lipid Membranes. Journal of Membrane Biology, 2015, 248, 545-561.	2.1	66
31	Assembling the puzzle: Oligomerization of Î±-pore forming proteins in membranes. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 457-466.	2.6	63
32	DRP1 interacts directly with BAX to induce its activation and apoptosis. EMBO Journal, 2022, 41, e108587.	7.8	59
33	Dynamin-related Protein 1 (Drp1) Promotes Structural Intermediates of Membrane Division. Journal of Biological Chemistry, 2014, 289, 30645-30656.	3.4	58
34	Membrane Disintegration Caused by the Steroid Saponin Digitonin Is Related to the Presence of Cholesterol. Molecules, 2015, 20, 20146-20160.	3.8	57
35	Quantitative interactome of a membrane Bcl-2 network identifies a hierarchy of complexes for apoptosis regulation. Nature Communications, 2017, 8, 73.	12.8	54
36	Oligomerization and Pore Formation by Equinatoxin II Inhibit Endocytosis and Lead to Plasma Membrane Reorganization. Journal of Biological Chemistry, 2011, 286, 37768-37777.	3.4	52

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37	Formation of Disulfide Bridges Drives Oligomerization, Membrane Pore Formation, and Translocation of Fibroblast Growth Factor 2 to Cell Surfaces. Journal of Biological Chemistry, 2015, 290, 8925-8937.	3.4	51
38	Stability of lipid domains. FEBS Letters, 2010, 584, 1653-1658.	2.8	49
39	Toxicity of an Î±-Pore-forming Toxin Depends on the Assembly Mechanism on the Target Membrane as Revealed by Single Molecule Imaging. Journal of Biological Chemistry, 2015, 290, 4856-4865.	3.4	48
40	Single molecule techniques for the study of membrane proteins. Applied Microbiology and Biotechnology, 2007, 76, 257-266.	3.6	46
41	Apoptotic foci at mitochondria: in and around Bax pores. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160217.	4.0	45
42	Surface analysis of membrane dynamics. Biochimica Et Biophysica Acta - Biomembranes, 2010, 1798, 766-776.	2.6	40
43	Mitochondrial residence of the apoptosis inducer BAX is more important than BAX oligomerization in promoting membrane permeabilization. Journal of Biological Chemistry, 2020, 295, 1623-1636.	3.4	40
44	Single event visualization of unconventional secretion of FGF2. Journal of Cell Biology, 2019, 218, 683-699.	5.2	39
45	The membrane activity of BOK involves formation of large, stable toroidal pores and is promoted by cBID. FEBS Journal, 2017, 284, 711-724.	4.7	37
46	Topology of active, membrane-embedded Bax in the context of a toroidal pore. Cell Death and Differentiation, 2018, 25, 1717-1731.	11.2	35
47	Differences in activity of actinoporins are related with the hydrophobicity of their N-terminus. Biochimie, 2015, 116, 70-78.	2.6	31
48	Permeabilization of the Outer Mitochondrial Membrane by Bcl-2 Proteins. Advances in Experimental Medicine and Biology, 2010, 677, 91-105.	1.6	30
49	Mechanisms of mitochondrial cell death. Biochemical Society Transactions, 2021, 49, 663-674.	3.4	28
50	Dynamic Interaction of cBid with Detergents, Liposomes and Mitochondria. PLoS ONE, 2012, 7, e35910.	2.5	28
51	The mycotoxin phomoxanthone A disturbs the form and function of the inner mitochondrial membrane. Cell Death and Disease, 2018, 9, 286.	6.3	27
52	The Incomplete Puzzle of the BCL2 Proteins. Cells, 2019, 8, 1176.	4.1	27
53	MERLIN: a novel BRET-based proximity biosensor for studying mitochondriaâ€"ER contact sites. Life Science Alliance, 2020, 3, e201900600.	2.8	27
54	Detergent-activated BAX Protein Is a Monomer. Journal of Biological Chemistry, 2009, 284, 23935-23946.	3.4	26

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55	Atomic Force Microscopy Imaging and Force Spectroscopy of Supported Lipid Bilayers. Journal of Visualized Experiments, 2015, , e52867.	0.3	26
56	Disrupting a key hydrophobic pair in the oligomerization interface of the actinoporins impairs their poreâ€forming activity. Protein Science, 2017, 26, 550-565.	7.6	25
57	Automated analysis of giant unilamellar vesicles using circular Hough transformation. Bioinformatics, 2014, 30, 1747-1754.	4.1	24
58	Does Ceramide Form Channels? The Ceramide-Induced Membrane Permeabilization Mechanism. Biophysical Journal, 2017, 113, 860-868.	0.5	24
59	A new perspective on membrane-embedded Bax oligomers using DEER and bioresistant orthogonal spin labels. Scientific Reports, 2019, 9, 13013.	3.3	24
60	Role of Membrane Lipids for the Activity of Pore Forming Peptides and Proteins. Advances in Experimental Medicine and Biology, 2010, 677, 31-55.	1.6	23
61	Membranes in motion: mitochondrial dynamics and their role in apoptosis. Biological Chemistry, 2014, 395, 297-311.	2.5	23
62	Partners in Crime: The Interplay of Proteins and Membranes in Regulated Necrosis. International Journal of Molecular Sciences, 2020, 21, 2412.	4.1	23
63	TAT-RasGAP₃₁₇₋₃₂₆kills cells by targeting inner-leafletâ€“enriched phospholipids. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31871-31881.	7.1	22
64	Confocal microscopy of giant vesicles supports the absence of HIVâ€1 neutralizing 2F5 antibody reactivity to plasma membrane phospholipids. FEBS Letters, 2010, 584, 1591-1596.	2.8	19
65	Dynein light chain binding determines complex formation and posttranslational stability of the Bcl-2 family members Bmf and Bim. Cell Death and Differentiation, 2020, 27, 434-450.	11.2	19
66	A lipid perspective on regulated cell death. International Review of Cell and Molecular Biology, 2020, 351, 197-236.	3.2	19
67	BFL1 modulates apoptosis at the membrane level through a bifunctional and multimodal mechanism showing key differences with BCLXL. Cell Death and Differentiation, 2019, 26, 1880-1894.	11.2	18
68	Drp1 modulates mitochondrial stress responses to mitotic arrest. Cell Death and Differentiation, 2020, 27, 2620-2634.	11.2	18
69	<scp>MIM</scp> through <scp>MOM</scp> : the awakening of Bax and Bak pores. EMBO Journal, 2018, 37, .	7.8	17
70	Mitochondrial outer membrane permeabilization at the single molecule level. Cellular and Molecular Life Sciences, 2021, 78, 3777-3790.	5.4	17
71	Pro-apoptotic cBid and Bax exhibit distinct membrane remodeling activities: An AFM study. Biochimica Et Biophysica Acta - Biomembranes, 2017, 1859, 17-27.	2.6	16
72	Drp1 polymerization stabilizes curved tubular membranes similar to those of constricted mitochondria. Journal of Cell Science, 2018, 132, .	2.0	16

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73	The Mysteries around the BCL-2 Family Member BOK. Biomolecules, 2020, 10, 1638.	4.0	15
74	Pushing the size limit of de novo structure ensemble prediction guided by sparse SDSL-EPR restraints to 200 residues: The monomeric and homodimeric forms of BAX. Journal of Structural Biology, 2016, 195, 62-71.	2.8	14
75	Bax retrotranslocation potentiates Bcl-xLâ€™s antiapoptotic activity and is essential for switch-like transitions between MOMP competency and resistance. Cell Death and Disease, 2018, 9, 430.	6.3	14
76	Quantitative analysis of super-resolved structures using ASAP. Nature Methods, 2019, 16, 711-714.	19.0	14
77	Apoptotic stress induces Bax-dependent, caspase-independent redistribution of LINC complex nesprins. Cell Death Discovery, 2020, 6, 90.	4.7	14
78	MLKL promotes cellular differentiation in myeloid leukemia by facilitating the release of G-CSF. Cell Death and Differentiation, 2021, 28, 3235-3250.	11.2	9
79	Quantification of Protein-Protein Interactions within Membranes by Fluorescence Correlation Spectroscopy. Current Protein and Peptide Science, 2011, 12, 691-698.	1.4	8
80	Curcumin and NCLX inhibitors share anti-tumoral mechanisms in microsatellite-instability-driven colorectal cancer. Cellular and Molecular Life Sciences, 2022, 79, 284.	5.4	8
81	MAVS â€induced mitochondrial membrane remodeling. FEBS Journal, 2019, 286, 1540-1542.	4.7	6
82	Systematic Assessment of the Accuracy of Subunit Counting in Biomolecular Complexes Using Automated Single-Molecule Brightness Analysis. Journal of Physical Chemistry Letters, 2022, 13, 822-829.	4.6	6
83	New Biophysical Methods to Study the Membrane Activity of Bcl-2 Proteins. Methods in Molecular Biology, 2014, 1176, 191-207.	0.9	5
84	Determinants of BH3 Sequence Specificity for the Disruption of Bcl-xL/cBid Complexes in Membranes. ACS Chemical Biology, 2017, 12, 989-1000.	3.4	5
85	Bcl-xL inhibits tBid and Bax via distinct mechanisms. Faraday Discussions, 2020, , .	3.2	5
86	Scanning Fluorescence Correlation Spectroscopy for Quantification of the Dynamics and Interactions in Tube Organelles of Living Cells. ChemPhysChem, 2018, 19, 3273-3278.	2.1	4
87	AFM to Study Pore-Forming Proteins. Methods in Molecular Biology, 2019, 1886, 191-202.	0.9	4
88	The BCL-2 family saga. Nature Reviews Molecular Cell Biology, 2020, 21, 564-565.	37.0	4
89	Techniques for studying membrane pores. Current Opinion in Structural Biology, 2021, 69, 108-116.	5.7	4
90	Force Mapping Study of Actinoporin Effect in Membranes Presenting Phase Domains. Toxins, 2021, 13, 669.	3.4	4

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91	Improving certainty in single molecule imaging. Current Opinion in Structural Biology, 2017, 46, 24-30.	5.7	4
92	Necroptosis Execution is Mediated by Plasma Membrane Nanopores that are Independent of Calcium. Biophysical Journal, 2017, 112, 400a.	0.5	3
93	Early activation of <scp>CD</scp>95 is limited and localized to the cytotoxic synapse. FEBS Journal, 2018, 285, 2813-2827.	4.7	3
94	Bcl-2 proteins: Unraveling the details of a complex and dynamic network. Molecular and Cellular Oncology, 2018, 5, e1384880.	0.7	2
95	Quantification of the Interactions Between BCL-2 Proteins by Fluorescence Correlation Spectroscopy. Methods in Molecular Biology, 2019, 1877, 337-350.	0.9	2
96	Lipids glue BAK dimers together. Nature Structural and Molecular Biology, 2020, 27, 1003-1004.	8.2	2
97	Microscopy of Model Membranes. Behavior Research Methods, 2015, 21, 63-97.	4.0	1
98	Mechanical Aspects of Mitochondrial Alterations in Apoptosis. Biophysical Journal, 2017, 112, 1a-2a.	0.5	0