Natividad Ruiz

List of Publications by Year
in descending order

58 papers	6,194 citations	109137 35 h-index	149479 56 g-index
69 all docs	69 docs citations	69 times ranked	4986 citing authors

#	Article	IF	Citations
1	Identification of a Multicomponent Complex Required for Outer Membrane Biogenesis in Escherichia coli. Cell, 2005, 121, 235-245.	13.5	656
2	Advances in understanding bacterial outer-membrane biogenesis. Nature Reviews Microbiology, 2006, 4, 57-66.	13.6	405
3	Function and Biogenesis of Lipopolysaccharides. EcoSal Plus, 2018, 8, .	2.1	375
4	Cytolysin-Mediated Translocation (CMT). Cell, 2001, 104, 143-152.	13.5	300
5	Lipopolysaccharide transport and assembly at the outer membrane: the PEZ model. Nature Reviews Microbiology, 2016, 14, 337-345.	13.6	299
6	Chemical Conditionality. Cell, 2005, 121, 307-317.	13.5	287
7	Sensing external stress: watchdogs of the Escherichia coli cell envelope. Current Opinion in Microbiology, 2005, 8, 122-126.	2.3	281
8	MurJ is the flippase of lipid-linked precursors for peptidoglycan biogenesis. Science, 2014, 345, 220-222.	6.0	278
9	Transport of lipopolysaccharide across the cell envelope: the long road of discovery. Nature Reviews Microbiology, 2009, 7, 677-683.	13.6	232
10	Identification of two inner-membrane proteins required for the transport of lipopolysaccharide to the outer membrane of <i>Escherichia coli</i>. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 5537-5542.	3.3	225
11	Bioinformatics identification of MurJ (MviN) as the peptidoglycan lipid II flippase in <i>Escherichia coli</i>. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15553-15557.	3.3	194
12	Characterization of the two-protein complex in <i>Escherichia coli</i> responsible for lipopolysaccharide assembly at the outer membrane. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 5363-5368.	3.3	184
13	Regulation of cell size in response to nutrient availability by fatty acid biosynthesis in <i>Escherichia coli</i>. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E2561-8.	3.3	145
14	Characterization of the role of the <i>Escherichia coli</i> periplasmic chaperone SurA using differential proteomics. Proteomics, 2009, 9, 2432-2443.	1.3	128
15	Genetic Basis for Activity Differences Between Vancomycin and Glycolipid Derivatives of Vancomycin. Science, 2001, 294, 361-364.	6.0	127
16	Regulated Assembly of the Transenvelope Protein Complex Required for Lipopolysaccharide Export. Biochemistry, 2012, 51, 4800-4806.	1.2	118
17	Lipoprotein LptE is required for the assembly of LptD by the Î²-barrel assembly machine in the outer membrane of <i>Escherichia coli</i>. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2492-2497.	3.3	116
18	Streptolysin O and adherence synergistically modulate proinflammatory responses of keratinocytes to group A streptococci. Molecular Microbiology, 1998, 27, 337-346.	1.2	111

#	Article	IF	Citations
19	Structural basis of unidirectional export of lipopolysaccharide to the cell surface. Nature, 2019, 567, 550-553.	13.7	108
20	Lipid II overproduction allows direct assay of transpeptidase inhibition by Î²-lactams. Nature Chemical Biology, 2017, 13, 793-798.	3.9	99
21	Nonconsecutive disulfide bond formation in an essential integral outer membrane protein. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12245-12250.	3.3	96
22	Lumen Thiol Oxidoreductase1, a Disulfide Bond-Forming Catalyst, Is Required for the Assembly of Photosystem II in <i>Arabidopsis</i> Â Â. Plant Cell, 2011, 23, 4462-4475.	3.1	87
23	Characterization of a stalled complex on the Î²-barrel assembly machine. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8717-8722.	3.3	77
24	Lipid Flippases for Bacterial Peptidoglycan Biosynthesis. Lipid Insights, 2015, 8s1, LPI.S31783.	1.0	76
25	LptE binds to and alters the physical state of LPS to catalyze its assembly at the cell surface. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 9467-9472.	3.3	74
26	Probing the Barrier Function of the Outer Membrane with Chemical Conditionality. ACS Chemical Biology, 2006, 1, 385-395.	1.6	72
27	Assembly and Maintenance of Lipids at the Bacterial Outer Membrane. Chemical Reviews, 2021, 121, 5098-5123.	23.0	72
28	Decoupling catalytic activity from biological function of the ATPase that powers lipopolysaccharide transport. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4982-4987.	3.3	70
29	A Suppressor of Cell Death Caused by the Loss of ÏƒE Downregulates Extracytoplasmic Stress Responses and Outer Membrane Vesicle Production in Escherichia coli. Journal of Bacteriology, 2007, 189, 1523-1530.	1.0	68
30	The Antibiotic Novobiocin Binds and Activates the ATPase That Powers Lipopolysaccharide Transport. Journal of the American Chemical Society, 2017, 139, 17221-17224.	6.6	65
31	Structure-Function Analysis of MurJ Reveals a Solvent-Exposed Cavity Containing Residues Essential for Peptidoglycan Biogenesis in Escherichia coli. Journal of Bacteriology, 2013, 195, 4639-4649.	1.0	63
32	Constitutive Activation of the Escherichia coli Pho Regulon Upregulates rpoS Translation in an Hfq-Dependent Fashion. Journal of Bacteriology, 2003, 185, 5984-5992.	1.0	60
33	Lipopolysaccharide transport to the cell surface: biosynthesis and extraction from the inner membrane. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20150029.	1.8	59
34	Lipopolysaccharide transport to the cell surface: periplasmic transport and assembly into the outer membrane. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20150027.	1.8	58
35	RpoS Proteolysis Is Regulated by a Mechanism That Does Not Require the SprE (RssB) Response Regulator Phosphorylation Site. Journal of Bacteriology, 2004, 186, 7403-7410.	1.0	56
36	RpoS-Dependent Transcriptional Control of sprE : Regulatory Feedback Loop. Journal of Bacteriology, 2001, 183, 5974-5981.	1.0	40

#	Article	IF	Citations
37	YhdP, TamB, and YdbH Are Redundant but Essential for Growth and Lipid Homeostasis of the Gram-Negative Outer Membrane. MBio, 2021, 12, e0271421.	1.8	37
38	Insights into the Function of YciM, a Heat Shock Membrane Protein Required To Maintain Envelope Integrity in Escherichia coli. Journal of Bacteriology, 2014, 196, 300-309.	1.0	35
39	Membrane Potential Is Required for MurJ Function. Journal of the American Chemical Society, 2018, 140, 4481-4484.	6.6	35
40	A viral protein antibiotic inhibits lipid II flippase activity. Nature Microbiology, 2017, 2, 1480-1484.	5.9	33
41	Identification of Residues in the Lipopolysaccharide ABC Transporter That Coordinate ATPase Activity with Extractor Function. MBio, 2016, 7, .	1.8	32
42	The Bacterial Cell Wall: From Lipid II Flipping to Polymerization. Chemical Reviews, 2022, 122, 8884-8910.	23.0	32
43	The bacterial lipid II flippase MurJ functions by an alternating-access mechanism. Journal of Biological Chemistry, 2019, 294, 981-990.	1.6	30
44	Charge Requirements of Lipid II Flippase Activity in Escherichia coli. Journal of Bacteriology, 2014, 196, 4111-4119.	1.0	29
45	Filling holes in peptidoglycan biogenesis of Escherichia coli. Current Opinion in Microbiology, 2016, 34, 1-6.	2.3	24
46	The O-Antigen Flippase Wzk Can Substitute for MurJ in Peptidoglycan Synthesis in Helicobacter pylori and Escherichia coli. PLoS ONE, 2016, 11, e0161587.	1.1	24
47	<i>Streptococcus pyogenes</i> YtgP (Spy_0390) Complements <i>Escherichia coli</i> Strains Depleted of the Putative Peptidoglycan Flippase MurJ. Antimicrobial Agents and Chemotherapy, 2009, 53, 3604-3605.	1.4	23
48	A cluster of residues in the lipopolysaccharide exporter that selects substrate variants for transport to the outer membrane. Molecular Microbiology, 2018, 109, 541-554.	1.2	23
49	Detection of Transport Intermediates in the Peptidoglycan Flippase MurJ Identifies Residues Essential for Conformational Cycling. Journal of the American Chemical Society, 2020, 142, 5482-5486.	6.6	19
50	Combining Mutations That Inhibit Two Distinct Steps of the ATP Hydrolysis Cycle Restores Wild-Type Function in the Lipopolysaccharide Transporter and Shows that ATP Binding Triggers Transport. MBio, 2019, 10, .	1.8	17
51	Transport of lipopolysaccharides and phospholipids to the outer membrane. Current Opinion in Microbiology, 2021, 60, 51-57.	2.3	14
52	LptBâ€LptF coupling mediates the closure of the substrateâ€binding cavity in the LptB₂FGC transporter through a rigidâ€body mechanism to extract LPS. Molecular Microbiology, 2020, 114, 200-213.	1.2	12
53	The transmembrane Î±â€helix of <scp>LptC</scp> participates in <scp>LPS</scp> extraction by the <scp>LptB₂FGC</scp> transporter. Molecular Microbiology, 2022, 118, 61-76.	1.2	7
54	Development of a plasmid addicted system that is independent of co-inducers, antibiotics and specific carbon source additions for bioproduct (1-butanol) synthesis in Escherichia coli. Metabolic Engineering Communications, 2015, 2, 6-12.	1.9	2

#	Article	IF	Citations
55	Lipopolysaccharide Transport Involves Long-Range Coupling between Cytoplasmic and Periplasmic Domains of the LptB ₂ FGC Extractor. Journal of Bacteriology, 2021, 203, .	1.0	2
56	Probing Conformational States of a Target Protein in Escherichia coli Cells by in vivo Cysteine Cross-linking Coupled with Proteolytic Gel Analysis. Bio-protocol, 2019, 9, e3271.	0.2	2
57	A Birdâ€™s Eye View of the Bacterial Landscape. Methods in Molecular Biology, 2013, 966, 1-14.	0.4	0
58	Identifying outer membrane biogenesis factors in Escherichia coli. FASEB Journal, 2007, 21, A40.	0.2	0