

# Juan A Ayala

## List of Publications by Year in descending order

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107  
papers

5,573  
citations

109321

35  
h-index

85541

71  
g-index

108  
all docs

108  
docs citations

108  
times ranked

5379  
citing authors

#	ARTICLE	IF	CITATIONS
1	Peptidoglycan editing in non-proliferating intracellular Salmonella as source of interference with immune signaling. <i>PLoS Pathogens</i> , 2022, 18, e1010241.	4.7	11
2	The Spanish Society for Microbiology and Latin American microbiologists: seventy-five years of joint scientific ventures. <i>International Microbiology</i> , 2021, 24, 657-664.	2.4	1
3	Thermostability enhancement of the <i>Pseudomonas fluorescens</i> esterase I by in vivo folding selection in <i>Thermus thermophilus</i> . <i>Biotechnology and Bioengineering</i> , 2020, 117, 30-38.	3.3	8
4	Protein determinants of dissemination and host specificity of metallo- $\beta$ -lactamases. <i>Nature Communications</i> , 2019, 10, 3617.	12.8	56
5	The peptidoglycan and biofilm matrix of <i>Staphylococcus epidermidis</i> undergo structural changes when exposed to human platelets. <i>PLoS ONE</i> , 2019, 14, e0211132.	2.5	14
6	Remote induction of cellular immune response in mice by anti-meningococcal nanocochleates - nanoproteoliposomes. <i>Science of the Total Environment</i> , 2019, 668, 1055-1063.	8.0	2
7	Regulation of AmpC-Driven $\beta$ -Lactam Resistance in <i>Pseudomonas aeruginosa</i> : Different Pathways, Different Signaling. <i>MSystems</i> , 2019, 4, .	3.8	53
8	A Specialized Peptidoglycan Synthase Promotes <i>Salmonella</i> Cell Division inside Host Cells. <i>MBio</i> , 2017, 8, .	4.1	30
9	Targeting the permeability barrier and peptidoglycan recycling pathways to disarm <i>Pseudomonas aeruginosa</i> against the innate immune system. <i>PLoS ONE</i> , 2017, 12, e0181932.	2.5	32
10	In vivo functional and molecular characterization of the Penicillin-Binding Protein 4 (DacB) of <i>Pseudomonas aeruginosa</i> . <i>BMC Microbiology</i> , 2016, 16, 234.	3.3	14
11	Genetic Dissection of the Type VI Secretion System in <i>Acinetobacter</i> and Identification of a Novel Peptidoglycan Hydrolase, TagX, Required for Its Biogenesis. <i>MBio</i> , 2016, 7, .	4.1	110
12	The Absence of a Mature Cell Wall Sacculus in Stable <i>Listeria monocytogenes</i> L-Form Cells Is Independent of Peptidoglycan Synthesis. <i>PLoS ONE</i> , 2016, 11, e0154925.	2.5	12
13	Role of <i>Pseudomonas aeruginosa</i> Low-Molecular-Mass Penicillin-Binding Proteins in AmpC Expression, $\beta$ -Lactam Resistance, and Peptidoglycan Structure. <i>Antimicrobial Agents and Chemotherapy</i> , 2015, 59, 3925-3934.	3.2	75
14	The Cpx Envelope Stress Response Modifies Peptidoglycan Cross-Linking via the L,d-Transpeptidase LdtD and the Novel Protein YgaU. <i>Journal of Bacteriology</i> , 2015, 197, 603-614.	2.2	78
15	Metabolite profiling and peptidoglycan analysis of transient cell wall-deficient bacteria in a new <i>Scherichia coli</i> model system. <i>Environmental Microbiology</i> , 2015, 17, 1586-1599.	3.8	17
16	$\beta$ -lactamases produced by amoxicillin-clavulanate-resistant enterobacteria isolated in Buenos Aires, Argentina: A new blaTEM gene. <i>Revista Argentina De Microbiologia</i> , 2014, 46, 210-217.	0.7	22
17	Rapid identification and discrimination of bacterial strains by laser induced breakdown spectroscopy and neural networks. <i>Talanta</i> , 2014, 121, 65-70.	5.5	57
18	Identification of the first blaCMY-2 gene in <i>Salmonella enterica</i> serovar Typhimurium isolates obtained from cases of paediatric diarrhoea illness detected in South America. <i>Journal of Global Antimicrobial Resistance</i> , 2013, 1, 143-148.	2.2	15

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19	Increased bile resistance in <i>Salmonella enterica</i> mutants lacking Prc periplasmic protease. <i>International Microbiology</i> , 2013, 16, 87-92.	2.4	9
20	First Human Isolate of <i>Salmonella enterica</i> Serotype Enteritidis Harboring blaCTX-M-14 in South America. <i>Antimicrobial Agents and Chemotherapy</i> , 2012, 56, 2132-2134.	3.2	20
21	Expression of OXA-Type and SFO-1 $\beta$ -Lactamases Induces Changes in Peptidoglycan Composition and Affects Bacterial Fitness. <i>Antimicrobial Agents and Chemotherapy</i> , 2012, 56, 1877-1884.	3.2	45
22	Antimicrobial resistance determinants among anaerobic bacteria isolated from footrot. <i>Veterinary Microbiology</i> , 2012, 157, 112-118.	1.9	13
23	The identification and characterization of IbpA, a novel $\beta$ -crystallin-type heat shock protein from mycoplasma. <i>Cell Stress and Chaperones</i> , 2012, 17, 171-180.	2.9	14
24	Identification and discrimination of bacterial strains by laser induced breakdown spectroscopy and neural networks. <i>Talanta</i> , 2011, 84, 730-737.	5.5	66
25	<i>Lysinibacillus sphaericus</i> S-layer protein toxicity against <i>Culex quinquefasciatus</i> . <i>Biotechnology Letters</i> , 2011, 33, 2037-2041.	2.2	25
26	Extended-spectrum $\beta$ -lactamases and plasmid-mediated quinolone resistance in enterobacterial clinical isolates in the paediatric hospital of Uruguay. <i>Journal of Antimicrobial Chemotherapy</i> , 2011, 66, 1725-1729.	3.0	53
27	AmpH, a Bifunctional $\alpha$ -Endopeptidase and $\alpha$ -Carboxypeptidase of <i>Escherichia coli</i> . <i>Journal of Bacteriology</i> , 2011, 193, 6887-6894.	2.2	52
28	Molecular analysis of the effector mechanisms of ceftiofur resistance among <i>Bacteroides</i> strains. <i>Journal of Antimicrobial Chemotherapy</i> , 2011, 66, 2492-2500.	3.0	27
29	Analysis of Genes Encoding Penicillin-Binding Proteins in Clinical Isolates of <i>Acinetobacter baumannii</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2011, 55, 5907-5913.	3.2	49
30	Identification of the full set of <i>Listeria monocytogenes</i> penicillin-binding proteins and characterization of PBPD2 (Lmo2812). <i>BMC Microbiology</i> , 2010, 10, 239.	3.3	41
31	blaCTX-M-2 and blaCTX-M-28 extended-spectrum $\beta$ -lactamase genes and class 1 integrons in clinical isolates of <i>Klebsiella pneumoniae</i> from Brazil. <i>Memórias Do Instituto Oswaldo Cruz</i> , 2010, 105, 163-167.	1.6	21
32	Induction of $\beta$ -lactamase production in <i>Aeromonas hydrophila</i> is responsive to $\beta$ -lactam-mediated changes in peptidoglycan composition. <i>Microbiology (United Kingdom)</i> , 2010, 156, 2327-2335.	1.8	49
33	Detection of class 1 and 2 integrons, extended-spectrum $\beta$ -lactamases and qnr alleles in enterobacterial isolates from the digestive tract of Intensive Care Unit inpatients. <i>International Journal of Antimicrobial Agents</i> , 2010, 36, 453-458.	2.5	39
34	A novel OXA-10-like $\beta$ -lactamase is present in different Enterobacteriaceae. <i>Diagnostic Microbiology and Infectious Disease</i> , 2010, 66, 228-229.	1.8	10
35	Surveillance of antibiotic resistance evolution and detection of class 1 and 2 integrons in human isolates of multi-resistant <i>Salmonella</i> Typhimurium obtained in Uruguay between 1976 and 2000. <i>International Journal of Infectious Diseases</i> , 2009, 13, 342-348.	3.3	22
36	Morphogenesis of rod-shaped sacculi. <i>FEMS Microbiology Reviews</i> , 2008, 32, 321-344.	8.6	270

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37	The penicillin-binding proteins: structure and role in peptidoglycan biosynthesis. FEMS Microbiology Reviews, 2008, 32, 234-258.	8.6	1,063
38	The penicillin-binding proteins: structure and role in peptidoglycan biosynthesis. FEMS Microbiology Reviews, 2008, 32, 556-556.	8.6	13
39	Ciprofloxacin-Resistant Enterobacteria Harboring the <i>aac(6)-Ib-cr</i> Variant Isolated from Feces of Inpatients in an Intensive Care Unit in Uruguay. Antimicrobial Agents and Chemotherapy, 2008, 52, 806-807.	3.2	28
40	Biochemical Characterization of PER-2 and Genetic Environment of bla PER-2. Antimicrobial Agents and Chemotherapy, 2007, 51, 2359-2365.	3.2	22
41	Experimental validation of Haldane's hypothesis on the role of infection as an evolutionary force for Metazoans. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 13728-13731.	7.1	33
42	Unstable Escherichia coli L Forms Revisited: Growth Requires Peptidoglycan Synthesis. Journal of Bacteriology, 2007, 189, 6512-6520.	2.2	91
43	Characterisation of KLUA-9, a $\beta$ -lactamase from extended-spectrum cephalosporin-susceptible Kluyvera ascorbata, and genetic organisation of blaKLUA-9. International Journal of Antimicrobial Agents, 2007, 29, 332-337.	2.5	4
44	Characterization of HMW-PBPs from the rod-shaped actinomycete Corynebacterium glutamicum: peptidoglycan synthesis in cells lacking actin-like cytoskeletal structures. Molecular Microbiology, 2007, 66, 643-657.	2.5	48
45	Characterization of HMW-PBPs from the rod-shaped actinomycete Corynebacterium glutamicum: peptidoglycan synthesis in cells lacking actin-like cytoskeletal structures. Molecular Microbiology, 2007, .	2.5	2
46	CTX-M: changing the face of ESBLs in Europe. Journal of Antimicrobial Chemotherapy, 2006, 59, 165-174.	3.0	756
47	The DD-carboxypeptidase activity encoded by pbp4B is not essential for the cell growth of Escherichia coli. Archives of Microbiology, 2006, 185, 23-27.	2.2	17
48	New TEM-Derived Extended-Spectrum $\beta$ -Lactamase and Its Genomic Context in Plasmids from Salmonella enterica Serovar Derby Isolates from Uruguay. Antimicrobial Agents and Chemotherapy, 2006, 50, 781-784.	3.2	18
49	Morphological changes and proteome response of Corynebacterium glutamicum to a partial depletion of FtsI. Microbiology (United Kingdom), 2006, 152, 2491-2503.	1.8	25
50	Biochemical and Molecular Characterization of Three New Variants of AmpC $\beta$ -Lactamases from Morganella morganii. Antimicrobial Agents and Chemotherapy, 2006, 50, 962-967.	3.2	27
51	Peptidoglycan precursor pools associated with MraY and FtsW deficiencies or antibiotic treatments. FEMS Microbiology Letters, 2005, 250, 195-200.	1.8	27
52	Enteropathogenic Escherichia coli Strains Carrying Genes Encoding the PER-2 and TEM-116 Extended-Spectrum $\beta$ -Lactamases Isolated from Children with Diarrhea in Uruguay. Journal of Clinical Microbiology, 2005, 43, 2940-2943.	3.9	54
53	Transcriptional Analysis of the bla CTX-M-2 Gene in Salmonella enterica Serovar Infantis. Antimicrobial Agents and Chemotherapy, 2005, 49, 3014-3017.	3.2	9
54	Penicillin-binding proteins of Bacteroides fragilis and their role in the resistance to imipenem of clinical isolates. Journal of Medical Microbiology, 2005, 54, 1055-1064.	1.8	32

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55	Description of In116, the first blaCTX-M-2-containing complex class 1 integron found in <i>Morganella morganii</i> isolates from Buenos Aires, Argentina. <i>Journal of Antimicrobial Chemotherapy</i> , 2005, 55, 461-465.	3.0	40
56	Chromosome-Encoded CTX-M-3 from <i>Kluyvera ascorbata</i> : a Possible Origin of Plasmid-Borne CTX-M-1-Derived Cefotaximases. <i>Antimicrobial Agents and Chemotherapy</i> , 2004, 48, 4895-4897.	3.2	129
57	Relationship between penicillin-binding protein patterns and $\beta$ -lactamases in clinical isolates of <i>Bacteroides fragilis</i> with different susceptibility to $\beta$ -lactam antibiotics. <i>Journal of Medical Microbiology</i> , 2004, 53, 213-221.	1.8	23
58	CTX-M-12 $\beta$ -Lactamase in a <i>Klebsiella pneumoniae</i> Clinical Isolate in Colombia. <i>Antimicrobial Agents and Chemotherapy</i> , 2004, 48, 629-631.	3.2	57
59	First Class A Carbapenemase Isolated from Enterobacteriaceae in Argentina. <i>Antimicrobial Agents and Chemotherapy</i> , 2004, 48, 1068-1069.	3.2	33
60	Characterization and chromosomal organization of the murD-murC-ftsQ region of <i>Corynebacterium glutamicum</i> ATCC 13869. <i>Research in Microbiology</i> , 2004, 155, 174-184.	2.1	10
61	Cloning and Expression of the <i>Mycoplasma hominis</i> ftsZ Gene for a Cell Division Protein. <i>Russian Journal of Genetics</i> , 2003, 39, 249-255.	0.6	0
62	Studies on the interaction of the antibiotic moenomycin A with the enzyme penicillin-binding protein 1b. <i>Bioorganic and Medicinal Chemistry</i> , 2003, 11, 2965-2981.	3.0	26
63	Relationship between beta-lactamase production, outer membrane protein and penicillin-binding protein profiles on the activity of carbapenems against clinical isolates of <i>Acinetobacter baumannii</i> . <i>Journal of Antimicrobial Chemotherapy</i> , 2003, 51, 565-574.	3.0	199
64	Novel Class 1 Integron (InS21) Carrying bla CTX-M-2 in <i>Salmonella enterica</i> Serovar Infantis. <i>Antimicrobial Agents and Chemotherapy</i> , 2002, 46, 2257-2261.	3.2	88
65	Characterization of the <i>Mycoplasma hominis</i> ftsZ gene and its sequence variability in mycoplasma clinical isolates. <i>Biochemical and Biophysical Research Communications</i> , 2002, 293, 155-162.	2.1	8
66	Moenomycin-Mediated Affinity Purification of Penicillin-Binding Protein 1b. <i>ChemBioChem</i> , 2002, 3, 332-340.	2.6	23
67	A Surface Plasmon Resonance Analysis of the Interaction between the Antibiotic Moenomycin A and Penicillin-Binding Protein 1b. <i>ChemBioChem</i> , 2002, 3, 559.	2.6	27
68	Topological characterization of the essential <i>Escherichia coli</i> cell division protein FtsW. <i>FEMS Microbiology Letters</i> , 2002, 216, 23-32.	1.8	36
69	Topological characterization of the essential <i>Escherichia coli</i> cell division protein FtsW. <i>FEMS Microbiology Letters</i> , 2002, 216, 23-32.	1.8	2
70	Analysis of the O-antigen chain length distribution during extracellular and intracellular growth of <i>Shigella flexneri</i> . <i>Microbial Pathogenesis</i> , 2001, 31, 21-27.	2.9	3
71	Biological Cost of AmpC Production for <i>Salmonella enterica</i> Serotype Typhimurium. <i>Antimicrobial Agents and Chemotherapy</i> , 2000, 44, 3137-3143.	3.2	90
72	The catalytic, glycosyl transferase and acyl transferase modules of the cell wall peptidoglycan-polymerizing penicillin-binding protein 1b of <i>Escherichia coli</i> . <i>Molecular Microbiology</i> , 1999, 34, 350-364.	2.5	169

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73	, an essential gene at the cluster of codes for a cytoplasmic protein with methyltransferase activity. <i>Biochimie</i> , 1999, 81, 879-888.	2.6	37
74	Characterization of <i>Acholeplasma laidlawii</i> ftsZ Gene and Its Gene Product. <i>Biochemical and Biophysical Research Communications</i> , 1999, 262, 44-49.	2.1	10
75	Regulation of transcription of cell division genes in the <i>Escherichia coli</i> dcw cluster. <i>Cellular and Molecular Life Sciences</i> , 1998, 54, 317-324.	5.4	77
76	Contribution of the P <sub>mra</sub> Promoter to Expression of Genes in the <i>Escherichia coli</i> mra Cluster of Cell Envelope Biosynthesis and Cell Division Genes. <i>Journal of Bacteriology</i> , 1998, 180, 4406-4412.	2.2	45
77	Cell Division Inhibition in <i>Salmonella typhimurium</i> Histidine-Constitutive Strains: an ftsI-Like Defect in the Presence of Wild-Type Penicillin-Binding Protein 3 Levels. <i>Journal of Bacteriology</i> , 1998, 180, 5231-5234.	2.2	14
78	The non-penicillin-binding module of the tripartite penicillin-binding protein 3 of <i>Escherichia coli</i> is required for folding and/or stability of the penicillin-binding module and the membrane-anchoring module confers cell septation activity on the folded structure. <i>Journal of Bacteriology</i> , 1996, 178, 5402-5409.	2.2	50
79	dacD, an <i>Escherichia coli</i> gene encoding a novel penicillin-binding protein (PBP6b) with DD-carboxypeptidase activity. <i>Journal of Bacteriology</i> , 1996, 178, 7106-7111.	2.2	81
80	Cell Cycle Control: Prokaryotic Solutions to Eukaryotic Problems?. <i>Journal of Theoretical Biology</i> , 1994, 168, 227-230.	1.7	27
81	Site-directed mutagenesis of penicillin-binding protein 3 of <i>Escherichia coli</i> : Role of Val-545. <i>FEMS Microbiology Letters</i> , 1994, 121, 251-256.	1.8	5
82	Chapter 5 Molecular biology of bacterial septation. <i>New Comprehensive Biochemistry</i> , 1994, 27, 73-101.	0.1	51
83	Engineering and overexpression of periplasmic forms of the penicillin-binding protein 3 of <i>Escherichia coli</i> . <i>Biochemical Journal</i> , 1994, 298, 189-195.	3.7	38
84	Site-directed mutagenesis of dicarboxylic acid residues of the penicillin-binding module of the <i>Escherichia coli</i> penicillin-binding protein 3. <i>FEMS Microbiology Letters</i> , 1993, 113, 247-251.	1.8	1
85	Site-directed mutagenesis of dicarboxylic acid residues of the penicillin-binding module of the <i>Escherichia coli</i> penicillin-binding protein 3. <i>FEMS Microbiology Letters</i> , 1993, 113, 247-251.	1.8	1
86	Variations in the Metabolism of Peptidoglycan Prior to Polymerization. , 1993, , 127-138.		0
87	Membrane intermediates in the peptidoglycan metabolism of <i>Escherichia coli</i> : possible roles of PBP 1b and PBP 3. <i>Journal of Bacteriology</i> , 1992, 174, 3549-3557.	2.2	151
88	Identification of a new mutation in <i>Escherichia coli</i> that suppresses apbpB(Ts) phenotype in the presence of penicillin-binding protein 1B. <i>FEMS Microbiology Letters</i> , 1991, 84, 7-13.	1.8	6
89	Induction of a class I beta-lactamase from <i>Citrobacter freundii</i> in <i>Escherichia coli</i> requires active ftsZ but not ftsA or ftsQ products. <i>Antimicrobial Agents and Chemotherapy</i> , 1991, 35, 2359-2365.	3.2	17
90	Identification of a new mutation in <i>Escherichia coli</i> that suppresses a pbpB (Ts) phenotype in the presence of penicillin-binding protein 1B. <i>FEMS Microbiology Letters</i> , 1991, 84, 7-13.	1.8	11

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91	Cloning and expression of the ponB gene, encoding penicillin-binding protein 1B of Escherichia coli, in heterologous systems. Journal of Bacteriology, 1990, 172, 4448-4455.	2.2	8
92	Nucleotide sequence of the regulatory region of the gene pbpB of Escherichia coli. Nucleic Acids Research, 1990, 18, 2813-2813.	14.5	8
93	Organization of the murE-murG region of Escherichia coli: identification of the murD gene encoding the D-glutamic-acid-adding enzyme. Journal of Bacteriology, 1989, 171, 6126-6134.	2.2	61
94	A new beta-lactam-binding protein derived from penicillin-binding protein 3 of Escherichia coli. Journal of Bacteriology, 1989, 171, 5194-5198.	2.2	9
95	A lacZ-pbpB gene fusion coding for an inducible hybrid protein that recognizes localized sites in the inner membrane of Escherichia coli. Journal of Bacteriology, 1988, 170, 3333-3341.	2.2	21
96	Variability in the posttranslational processing of penicillin-binding protein 1b among different strains of Escherichia coli. Biochemistry and Cell Biology, 1987, 65, 62-67.	2.0	3
97	Interaction of FtsA and PBP3 proteins in the Escherichia coli septum. Journal of Bacteriology, 1986, 166, 985-992.	2.2	94
98	Changes in protein synthesis and in RNA poly A+ population after treatment of Dictyostelium amoebae by 5-bromo-2-deoxyuridine. Biology of the Cell, 1985, 52, 231-242.	2.0	1
99	Analysis of the different molecular forms of penicillin-binding protein 1B in Escherichia coli ponB mutants lysogenized with specialized transducing lambda(ponB+) bacteriophages. FEBS Journal, 1984, 144, 571-576.	0.2	13
100	Partial crypticity of penicillin-binding protein 1b in purified cell envelopes of Escherichia coli. Current Microbiology, 1984, 11, 247-250.	2.2	4
101	Application of a charge/size two-dimensional gel electrophoresis system to the analysis of the penicillin-binding proteins of Escherichia coli. FEBS Letters, 1984, 168, 93-96.	2.8	5
102	Binding of 125I-labeled beta-lactam antibiotics to the penicillin binding proteins of Escherichia coli. Journal of Antibiotics, 1984, 37, 389-393.	2.0	12
103	Polyadenylated RNA population present in dormant spores of Dictyostelium discoideum. Cell Differentiation, 1982, 11, 55-61.	0.4	10
104	Thermal denaturation of Micrococcus lysodeikticus adenosine triphosphatase. Influence of temperature on the circular dichroism, fluorescence and enzymic activity of the protein. Biochemical Journal, 1978, 169, 371-380.	3.7	10
105	Optical properties and denaturation by guanidinium chloride and urea of the adenosine triphosphatase of Micrococcus lysodeikticus. A comparison of four molecular forms of the enzyme. Biochemical Journal, 1977, 161, 321-331.	3.7	13
106	Activation parameters and molecular changes induced by substrate hydrolysis of the adenosine triphosphatase of Micrococcus lysodeikticus. A comparison of three different soluble forms of the enzyme. Molecular and Cellular Biochemistry, 1977, 17, 17-23.	3.1	4
107	Activation Parameters of the Adenosine Triphosphatase of Micrococcus lysodeikticus A Comparison of the Soluble and Membrane-Bound Forms of the Enzyme. FEBS Journal, 1976, 66, 43-47.	0.2	10