

# Carlos Juan

## List of Publications by Year in descending order

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82

papers

5,431

citations

66343

42

h-index

85541

71

g-index

88

all docs

88

docs citations

88

times ranked

4767

citing authors

#	ARTICLE	IF	CITATIONS
1	The increasing threat of <i>Pseudomonas aeruginosa</i> high-risk clones. <i>Drug Resistance Updates</i> , 2015, 21-22, 41-59.	14.4	475
2	$\beta$ -Lactam Resistance Response Triggered by Inactivation of a Nonessential Penicillin-Binding Protein. <i>PLoS Pathogens</i> , 2009, 5, e1000353.	4.7	258
3	<i>Pseudomonas aeruginosa</i> Ceftolozane-Tazobactam Resistance Development Requires Multiple Mutations Leading to Overexpression and Structural Modification of AmpC. <i>Antimicrobial Agents and Chemotherapy</i> , 2014, 58, 3091-3099.	3.2	197
4	Genetic Markers of Widespread Extensively Drug-Resistant <i>Pseudomonas aeruginosa</i> High-Risk Clones. <i>Antimicrobial Agents and Chemotherapy</i> , 2012, 56, 6349-6357.	3.2	189
5	Evolution of <i>Pseudomonas aeruginosa</i> Antimicrobial Resistance and Fitness under Low and High Mutation Rates. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 1767-1778.	3.2	170
6	Stepwise Upregulation of the <i>Pseudomonas aeruginosa</i> Chromosomal Cephalosporinase Conferring High-Level $\beta$ -Lactam Resistance Involves Three AmpD Homologues. <i>Antimicrobial Agents and Chemotherapy</i> , 2006, 50, 1780-1787.	3.2	164
7	Extended-spectrum $\beta$ -lactamase-producing <i>Escherichia coli</i> in Spain belong to a large variety of multilocus sequence typing types, including ST10 complex/A, ST23 complex/A and ST131/B2. <i>International Journal of Antimicrobial Agents</i> , 2009, 34, 173-176.	2.5	164
8	Molecular Epidemiology and Mechanisms of Carbapenem Resistance in <i>Pseudomonas aeruginosa</i> Isolates from Spanish Hospitals. <i>Antimicrobial Agents and Chemotherapy</i> , 2007, 51, 4329-4335.	3.2	161
9	Mechanisms leading to in vivo ceftolozane/tazobactam resistance development during the treatment of infections caused by MDR <i>Pseudomonas aeruginosa</i> . <i>Journal of Antimicrobial Chemotherapy</i> , 2018, 73, 658-663.	3.0	157
10	Molecular Mechanisms of $\beta$ -Lactam Resistance Mediated by AmpC Hyperproduction in <i>Pseudomonas aeruginosa</i> Clinical Strains. <i>Antimicrobial Agents and Chemotherapy</i> , 2005, 49, 4733-4738.	3.2	146
11	Hypermutation and the Preexistence of Antibiotic-Resistant <i>Pseudomonas aeruginosa</i> Mutants: Implications for Susceptibility Testing and Treatment of Chronic Infections. <i>Antimicrobial Agents and Chemotherapy</i> , 2004, 48, 4226-4233.	3.2	138
12	Pan- $\beta$ -Lactam Resistance Development in <i>Pseudomonas aeruginosa</i> Clinical Strains: Molecular Mechanisms, Penicillin-Binding Protein Profiles, and Binding Affinities. <i>Antimicrobial Agents and Chemotherapy</i> , 2012, 56, 4771-4778.	3.2	138
13	<i>Pseudomonas aeruginosa</i> carbapenem resistance mechanisms in Spain: impact on the activity of imipenem, meropenem and doripenem. <i>Journal of Antimicrobial Chemotherapy</i> , 2011, 66, 2022-2027.	3.0	132
14	Host and Pathogen Biomarkers for Severe <i>Pseudomonas aeruginosa</i> Infections. <i>Journal of Infectious Diseases</i> , 2017, 215, S44-S51.	4.0	116
15	Metallo- $\beta$ -lactamase-producing <i>Pseudomonas putida</i> as a reservoir of multidrug resistance elements that can be transferred to successful <i>Pseudomonas aeruginosa</i> clones. <i>Journal of Antimicrobial Chemotherapy</i> , 2010, 65, 474-478.	3.0	105
16	Biological Markers of <i>Pseudomonas aeruginosa</i> Epidemic High-Risk Clones. <i>Antimicrobial Agents and Chemotherapy</i> , 2013, 57, 5527-5535.	3.2	104
17	Deciphering the Resistome of the Widespread <i>Pseudomonas aeruginosa</i> Sequence Type 175 International High-Risk Clone through Whole-Genome Sequencing. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 7415-7423.	3.2	99
18	PBP3 inhibition elicits adaptive responses in <i>Pseudomonas aeruginosa</i> . <i>Molecular Microbiology</i> , 2006, 62, 84-99.	2.5	97

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19	Activity of a New Cephalosporin, CXA-101 (FR264205), against $\beta$ -Lactam-Resistant <i>Pseudomonas aeruginosa</i> Mutants Selected <i>In Vitro</i> and after Antipseudomonal Treatment of Intensive Care Unit Patients. <i>Antimicrobial Agents and Chemotherapy</i> , 2010, 54, 1213-1217.	3.2	96
20	Benefit of Having Multiple <i>ampD</i> Genes for Acquiring $\beta$ -Lactam Resistance without Losing Fitness and Virulence in <i>Pseudomonas aeruginosa</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2008, 52, 3694-3700.	3.2	91
21	Nosocomial Spread of Colistin-Only-Sensitive Sequence Type 235 <i>Pseudomonas aeruginosa</i> Isolates Producing the Extended-Spectrum $\beta$ -Lactamases CES-1 and CES-5 in Spain. <i>Antimicrobial Agents and Chemotherapy</i> , 2009, 53, 4930-4933.	3.2	91
22	Affinity of the New Cephalosporin CXA-101 to Penicillin-Binding Proteins of <i>Pseudomonas aeruginosa</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2010, 54, 3933-3937.	3.2	88
23	Role of <i>Klebsiella pneumoniae</i> LamB Porin in Antimicrobial Resistance. <i>Antimicrobial Agents and Chemotherapy</i> , 2011, 55, 1803-1805.	3.2	87
24	Activity of a New Antipseudomonal Cephalosporin, CXA-101 (FR264205), against Carbapenem-Resistant and Multidrug-Resistant <i>Pseudomonas aeruginosa</i> Clinical Strains. <i>Antimicrobial Agents and Chemotherapy</i> , 2010, 54, 846-851.	3.2	85
25	Diversity and regulation of intrinsic $\beta$ -lactamases from non-fermenting and other Gram-negative opportunistic pathogens. <i>FEMS Microbiology Reviews</i> , 2017, 41, 781-815.	8.6	83
26	Structure and interaction with phospholipids of a prokaryotic lipoxygenase from <i>Pseudomonas aeruginosa</i> . <i>FASEB Journal</i> , 2013, 27, 4811-4821.	0.5	78
27	Azithromycin in <i>Pseudomonas aeruginosa</i> Biofilms: Bactericidal Activity and Selection of <i>nfxB</i> Mutants. <i>Antimicrobial Agents and Chemotherapy</i> , 2009, 53, 1552-1560.	3.2	73
28	Characterization of the New Metallo- $\beta$ -Lactamase VIM-13 and Its Integron-Borne Gene from a <i>Pseudomonas aeruginosa</i> Clinical Isolate in Spain. <i>Antimicrobial Agents and Chemotherapy</i> , 2008, 52, 3589-3596.	3.2	71
29	Characterization of plasmids encoding blaESBL and surrounding genes in Spanish clinical isolates of <i>Escherichia coli</i> and <i>Klebsiella pneumoniae</i> . <i>Journal of Antimicrobial Chemotherapy</i> , 2008, 63, 60-66.	3.0	66
30	Impact of AmpC Derepression on Fitness and Virulence: the Mechanism or the Pathway?. <i>MBio</i> , 2016, 7, .	4.1	62
31	NagZ Inactivation Prevents and Reverts $\beta$ -Lactam Resistance, Driven by AmpD and PBP 4 Mutations, in <i>Pseudomonas aeruginosa</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2010, 54, 3557-3563.	3.2	61
32	<i>In Vivo</i> Emergence of Resistance to Novel Cephalosporin- $\beta$ -Lactamase Inhibitor Combinations through the Duplication of Amino Acid D149 from OXA-2 $\beta$ -Lactamase (OXA-539) in Sequence Type 235 <i>Pseudomonas aeruginosa</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2017, 61, .	3.2	61
33	Lack of Association between Hypermutation and Antibiotic Resistance Development in <i>Pseudomonas aeruginosa</i> Isolates from Intensive Care Unit Patients. <i>Antimicrobial Agents and Chemotherapy</i> , 2004, 48, 3573-3575.	3.2	60
34	VIM-2-producing Multidrug-Resistant <i>Pseudomonas aeruginosa</i> ST175 Clone, Spain. <i>Emerging Infectious Diseases</i> , 2012, 18, 1235-41.	4.3	59
35	Antagonistic Interactions of <i>Pseudomonas aeruginosa</i> Antibiotic Resistance Mechanisms in Planktonic but Not Biofilm Growth. <i>Antimicrobial Agents and Chemotherapy</i> , 2011, 55, 4560-4568.	3.2	58
36	OmpK26, a Novel Porin Associated with Carbapenem Resistance in <i>Klebsiella pneumoniae</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2011, 55, 4742-4747.	3.2	56

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37	The Pseudomonas aeruginosa CreBC Two-Component System Plays a Major Role in the Response to $\beta$ -Lactams, Fitness, Biofilm Growth, and Global Regulation. <i>Antimicrobial Agents and Chemotherapy</i> , 2014, 58, 5084-5095.	3.2	56
38	Environmental Microbiota Represents a Natural Reservoir for Dissemination of Clinically Relevant Metallo- $\beta$ -Lactamases. <i>Antimicrobial Agents and Chemotherapy</i> , 2011, 55, 5376-5379.	3.2	55
39	A large sustained endemic outbreak of multiresistant Pseudomonas aeruginosa: a new epidemiological scenario for nosocomial acquisition. <i>BMC Infectious Diseases</i> , 2011, 11, 272.	2.9	54
40	Regulation of AmpC-Driven $\beta$ -Lactam Resistance in Pseudomonas aeruginosa: Different Pathways, Different Signaling. <i>MSystems</i> , 2019, 4, .	3.8	53
41	AmpG Inactivation Restores Susceptibility of Pan- $\beta$ -Lactam-Resistant Pseudomonas aeruginosa Clinical Strains. <i>Antimicrobial Agents and Chemotherapy</i> , 2011, 55, 1990-1996.	3.2	47
42	Transferable Multidrug Resistance Plasmid Carrying <i>cfr</i> Associated with <i>tet</i> (L), <i>ant(4)</i> $\alpha$ , <i>la</i> , and <i>dfrK</i> Genes from a Clinical Methicillin-Resistant <i>Staphylococcus aureus</i> ST125 Strain. <i>Antimicrobial Agents and Chemotherapy</i> , 2012, 56, 2139-2142.	3.2	47
43	Differential $\beta$ -lactam resistance response driven by <i>ampD</i> or <i>dacB</i> (PBP4) inactivation in genetically diverse Pseudomonas aeruginosa strains. <i>Journal of Antimicrobial Chemotherapy</i> , 2010, 65, 1540-1542.	3.0	42
44	Contribution of clonal dissemination and selection of mutants during therapy to Pseudomonas aeruginosa antimicrobial resistance in an intensive care unit setting. <i>Clinical Microbiology and Infection</i> , 2005, 11, 887-892.	6.0	38
45	Synthesis and Antimicrobial Studies of New Antibacterial Azo-Compounds Active against <i>Staphylococcus aureus</i> and <i>Listeria monocytogenes</i> . <i>Molecules</i> , 2017, 22, 1372.	3.8	37
46	Interplay between Peptidoglycan Biology and Virulence in Gram-Negative Pathogens. <i>Microbiology and Molecular Biology Reviews</i> , 2018, 82, .	6.6	36
47	Nosocomial Outbreak of a Non-Cefepime-Susceptible Ceftazidime-Susceptible Pseudomonas aeruginosa Strain Overexpressing MexXY-OprM and Producing an Integron-Borne PSE-1 $\beta$ -Lactamase. <i>Journal of Clinical Microbiology</i> , 2009, 47, 2381-2387.	3.9	35
48	Targeting the permeability barrier and peptidoglycan recycling pathways to disarm Pseudomonas aeruginosa against the innate immune system. <i>PLoS ONE</i> , 2017, 12, e0181932.	2.5	32
49	Activity of the new cephalosporin CXA-101 (FR264205) against Pseudomonas aeruginosa isolates from chronically-infected cystic fibrosis patients. <i>Clinical Microbiology and Infection</i> , 2010, 16, 1482-1487.	6.0	31
50	Hypermutation in <i>Burkholderia cepacia</i> complex is mediated by DNA mismatch repair inactivation and is highly prevalent in cystic fibrosis chronic respiratory infection. <i>International Journal of Medical Microbiology</i> , 2014, 304, 1182-1191.	3.6	30
51	Impact of multidrug resistance on the pathogenicity of Pseudomonas aeruginosa: in vitro and in vivo studies. <i>International Journal of Antimicrobial Agents</i> , 2016, 47, 368-374.	2.5	30
52	Role of changes in the L3 loop of the active site in the evolution of enzymatic activity of VIM-type metallo- $\beta$ -lactamases. <i>Journal of Antimicrobial Chemotherapy</i> , 2010, 65, 1950-1954.	3.0	29
53	First detection in Europe of the metallo- $\beta$ -lactamase IMP-15 in clinical strains of <i>Pseudomonas putida</i> and <i>Pseudomonas aeruginosa</i> . <i>Clinical Microbiology and Infection</i> , 2013, 19, E424-E427.	6.0	27
54	Detection of the Novel Extended-Spectrum $\beta$ -Lactamase OXA-161 from a Plasmid-Located Integron in <i>Pseudomonas aeruginosa</i> Clinical Isolates from Spain. <i>Antimicrobial Agents and Chemotherapy</i> , 2009, 53, 5288-5290.	3.2	25

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55	Synergistic activity of fosfomycin, $\beta$ -lactams and peptidoglycan recycling inhibition against <i>Pseudomonas aeruginosa</i> . <i>Journal of Antimicrobial Chemotherapy</i> , 2017, 72, 448-454.	3.0	25
56	In vitro dynamics and mechanisms of resistance development to imipenem and imipenem/relebactam in <i>Pseudomonas aeruginosa</i> . <i>Journal of Antimicrobial Chemotherapy</i> , 2020, 75, 2508-2515.	3.0	24
57	Nosocomial dissemination of VIM-2-producing ST235 <i>Pseudomonas aeruginosa</i> in Lithuania. <i>European Journal of Clinical Microbiology and Infectious Diseases</i> , 2016, 35, 195-200.	2.9	21
58	Challenges for accurate susceptibility testing, detection and interpretation of $\beta$ -lactam resistance phenotypes in <i>Pseudomonas aeruginosa</i> : results from a Spanish multicentre study. <i>Journal of Antimicrobial Chemotherapy</i> , 2013, 68, 619-630.	3.0	20
59	Sensing Mg <sup>2+</sup> contributes to the resistance of <i>Pseudomonas aeruginosa</i> to complement-mediated opsonophagocytosis. <i>Environmental Microbiology</i> , 2017, 19, 4278-4286.	3.8	20
60	Mobile Genetic Elements Related to the Diffusion of Plasmid-Mediated AmpC $\beta$ -Lactamases or Carbapenemases from Enterobacteriaceae: Findings from a Multicenter Study in Spain. <i>Antimicrobial Agents and Chemotherapy</i> , 2015, 59, 5260-5266.	3.2	19
61	Unmanageable norovirus outbreak in a single resort located in the Dominican Republic. <i>Clinical Microbiology and Infection</i> , 2011, 17, 952-954.	6.0	18
62	In Vivo Validation of Peptidoglycan Recycling as a Target to Disable AmpC-Mediated Resistance and Reduce Virulence Enhancing the Cell-Wall Targeting Immunity. <i>Journal of Infectious Diseases</i> , 2019, 220, 1729-1737.	4.0	18
63	Unusual Diversity of Acquired $\beta$ -lactamases in Multidrug-Resistant <i>Pseudomonas aeruginosa</i> Isolates in a Mexican Hospital. <i>Microbial Drug Resistance</i> , 2012, 18, 471-478.	2.0	15
64	Pathogenic characteristics of <i>Pseudomonas aeruginosa</i> bacteraemia isolates in a high-endemicity setting for ST175 and ST235 high-risk clones. <i>European Journal of Clinical Microbiology and Infectious Diseases</i> , 2020, 39, 671-678.	2.9	15
65	Gastroenteritis Outbreaks in 2 Tourist Resorts, Dominican Republic. <i>Emerging Infectious Diseases</i> , 2009, 15, 1877-1878.	4.3	14
66	Comparative analysis of <i>in vitro</i> dynamics and mechanisms of ceftolozane/tazobactam and imipenem/relebactam resistance development in <i>Pseudomonas aeruginosa</i> XDR high-risk clones. <i>Journal of Antimicrobial Chemotherapy</i> , 2022, 77, 957-968.	3.0	14
67	Chronic Respiratory Infections by Mucoid Carbapenemase-Producing <i>Pseudomonas aeruginosa</i> Strains, a New Potential Public Health Problem. <i>Antimicrobial Agents and Chemotherapy</i> , 2008, 52, 2285-2286.	3.2	12
68	Understanding the acute inflammatory response to <i>Pseudomonas aeruginosa</i> infection: differences between susceptible and multidrug-resistant strains in a mouse peritonitis model. <i>International Journal of Antimicrobial Agents</i> , 2017, 49, 198-203.	2.5	12
69	Comparative Analysis of Peptidoglycans From <i>Pseudomonas aeruginosa</i> Isolates Recovered From Chronic and Acute Infections. <i>Frontiers in Microbiology</i> , 2019, 10, 1868.	3.5	12
70	Comparison of Local Features from Two Spanish Hospitals Reveals Common and Specific Traits at Multiple Levels of the Molecular Epidemiology of Metallo- $\beta$ -Lactamase-Producing <i>Pseudomonas</i> spp. <i>Antimicrobial Agents and Chemotherapy</i> , 2014, 58, 2454-2458.	3.2	11
71	Profiling the susceptibility of <i>Pseudomonas aeruginosa</i> strains from acute and chronic infections to cell-wall-targeting immune proteins. <i>Scientific Reports</i> , 2019, 9, 3575.	3.3	10
72	6-Halopyridylmethylidene Penicillin-Based Sulfones Efficiently Inactivate the Natural Resistance of <i>Pseudomonas aeruginosa</i> to $\beta$ -Lactam Antibiotics. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 6310-6328.	6.4	10

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73	Draft Genome Sequence of VIM-2-Producing Multidrug-Resistant <i>Pseudomonas aeruginosa</i> ST175, an Epidemic High-Risk Clone. <i>Genome Announcements</i> , 2013, 1, e0011213.	0.8	9
74	Impact of Peptidoglycan Recycling Blockade and Expression of Horizontally Acquired $\beta$ -Lactamases on <i>Pseudomonas aeruginosa</i> Virulence. <i>Microbiology Spectrum</i> , 2022, 10, e0201921.	3.0	8
75	Activity of mammalian peptidoglycan-targeting immunity against <i>Pseudomonas aeruginosa</i> . <i>Journal of Medical Microbiology</i> , 2020, 69, 492-504.	1.8	5
76	Mammals' humoral immune proteins and peptides targeting the bacterial envelope: from natural protection to therapeutic applications against multidrug-resistant Gram-negative. <i>Biological Reviews</i> , 2022, 97, 1005-1037.	10.4	5
77	Role of changes in the L3 loop of the active site in the evolution of enzymatic activity of VIM-type metallo- $\beta$ -lactamases-authors' response. <i>Journal of Antimicrobial Chemotherapy</i> , 2011, 66, 686-686.	3.0	4
78	Draft Genome Sequence of Colistin-Only-Susceptible <i>Pseudomonas aeruginosa</i> Strain ST235, a Hypervirulent High-Risk Clone in Spain. <i>Genome Announcements</i> , 2014, 2, .	0.8	4
79	VIM-47, a New Variant of the Autochthonous Metallo- $\beta$ -Lactamase VIM-13 from the Balearic Islands in Spain. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 3251-3252.	3.2	3
80	Comparison of Local Features from Two Spanish Hospitals Reveals Common and Specific Traits at Multiple Levels of the Molecular Epidemiology of Metallo- $\beta$ -Lactamase-Producing <i>Pseudomonas</i> spp. <i>Antimicrobial Agents and Chemotherapy</i> , 2014, 58, 4992-4992.	3.2	1
81	Optimizing the management of <i>Pseudomonas aeruginosa</i> infections with tools for the detection of resistance mechanisms and pharmacokinetic/pharmacodynamic (PK/PD) analysis. <i>Enfermedades Infecciosas Y Microbiología Clínica</i> , 2019, 37, 623-625.	0.5	1
82	Optimizing the management of <i>Pseudomonas aeruginosa</i> infections with tools for the detection of resistance mechanisms and pharmacokinetic/pharmacodynamic (PK/PD) analysis. <i>Enfermedades Infecciosas Y Microbiología Clínica</i> (English Ed ), 2019, 37, 623-625.	0.3	0