

# Jean-Emmanuel Hugonnet

## List of Publications by Year in descending order

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53  
papers

3,281  
citations

159525

30  
h-index

168321

53  
g-index

57  
all docs

57  
docs citations

57  
times ranked

2380  
citing authors

#	ARTICLE	IF	CITATIONS
1	Meropenem-Clavulanate Is Effective Against Extensively Drug-Resistant <i>Mycobacterium tuberculosis</i> . <i>Science</i> , 2009, 323, 1215-1218.	6.0	477
2	Irreversible Inhibition of the <i>Mycobacterium tuberculosis</i> $\beta$ -Lactamase by Clavulanate. <i>Biochemistry</i> , 2007, 46, 11998-12004.	1.2	208
3	A Novel Peptidoglycan Cross-linking Enzyme for a $\beta$ -Lactam-resistant Transpeptidation Pathway. <i>Journal of Biological Chemistry</i> , 2005, 280, 38146-38152.	1.6	192
4	Factors essential for L,D-transpeptidase-mediated peptidoglycan cross-linking and $\beta$ -lactam resistance in <i>Escherichia coli</i> . <i>ELife</i> , 2016, 5, .	2.8	137
5	Inactivation of <i>Mycobacterium tuberculosis</i> $\beta$ -Lactamase LdtMt1 by Carbapenems and Cephalosporins. <i>Antimicrobial Agents and Chemotherapy</i> , 2012, 56, 4189-4195.	1.4	131
6	$\beta$ -Lactamase inhibition by avibactam in <i>Mycobacterium abscessus</i> . <i>Journal of Antimicrobial Chemotherapy</i> , 2015, 70, 1051-1058.	1.3	126
7	In Vitro Cross-Linking of <i>Mycobacterium tuberculosis</i> Peptidoglycan by $\beta$ -Lactamase LdtMt1, $\beta$ -Lactamases and Inactivation of These Enzymes by Carbapenems. <i>Antimicrobial Agents and Chemotherapy</i> , 2013, 57, 5940-5945.	1.4	124
8	Unexpected Inhibition of Peptidoglycan LD-Transpeptidase from <i>Enterococcus faecium</i> by the $\beta$ -Lactam Imipenem. <i>Journal of Biological Chemistry</i> , 2007, 282, 30414-30422.	1.6	115
9	Crystal Structure of a Novel $\beta$ -Lactam-insensitive Peptidoglycan Transpeptidase. <i>Journal of Molecular Biology</i> , 2006, 359, 533-538.	2.0	110
10	Role of Class A Penicillin-Binding Proteins in PBP5-Mediated $\beta$ -Lactam Resistance in <i>Enterococcus faecalis</i> . <i>Journal of Bacteriology</i> , 2004, 186, 1221-1228.	1.0	108
11	Characterization of broad-spectrum <i>Mycobacterium abscessus</i> class A $\beta$ -lactamase. <i>Journal of Antimicrobial Chemotherapy</i> , 2014, 69, 691-696.	1.3	95
12	Rapid Cytolysis of <i>Mycobacterium tuberculosis</i> by Faropenem, an Orally Bioavailable $\beta$ -Lactam Antibiotic. <i>Antimicrobial Agents and Chemotherapy</i> , 2015, 59, 1308-1319.	1.4	92
13	The CroRS Two-Component Regulatory System Is Required for Intrinsic $\beta$ -Lactam Resistance in <i>Enterococcus faecalis</i> . <i>Journal of Bacteriology</i> , 2003, 185, 7184-7192.	1.0	90
14	AslM, the D-Aspartate Ligase Responsible for the Addition of D-Aspartic Acid onto the Peptidoglycan Precursor of <i>Enterococcus faecium</i> . <i>Journal of Biological Chemistry</i> , 2006, 281, 11586-11594.	1.6	85
15	Specificity of L,D-Transpeptidases from Gram-positive Bacteria Producing Different Peptidoglycan Chemotypes. <i>Journal of Biological Chemistry</i> , 2007, 282, 13151-13159.	1.6	78
16	Synthesis of Mosaic Peptidoglycan Cross-bridges by Hybrid Peptidoglycan Assembly Pathways in Gram-positive Bacteria. <i>Journal of Biological Chemistry</i> , 2004, 279, 41546-41556.	1.6	74
17	Synthesis of the L-Alanyl-L-alanine Cross-bridge of <i>Enterococcus faecalis</i> Peptidoglycan. <i>Journal of Biological Chemistry</i> , 2002, 277, 45935-45941.	1.6	66
18	Characterization of CrgA, a New Partner of the <i>Mycobacterium tuberculosis</i> Peptidoglycan Polymerization Complexes. <i>Journal of Bacteriology</i> , 2011, 193, 3246-3256.	1.0	61

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19	Structure of the Covalent Adduct Formed between Mycobacterium tuberculosis $\beta$ -Lactamase and Clavulanate. <i>Biochemistry</i> , 2008, 47, 5312-5316.	1.2	59
20	Copper inhibits peptidoglycan LD-transpeptidases suppressing $\beta$ -lactam resistance due to bypass of penicillin-binding proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 10786-10791.	3.3	59
21	Kinetic Features of L,D-Transpeptidase Inactivation Critical for $\beta$ -Lactam Antibacterial Activity. <i>PLoS ONE</i> , 2013, 8, e67831.	1.1	56
22	Inactivation Kinetics of a New Target of $\beta$ -Lactam Antibiotics. <i>Journal of Biological Chemistry</i> , 2011, 286, 22777-22784.	1.6	50
23	Critical Impact of Peptidoglycan Precursor Amidation on the Activity of $\beta$ -Transpeptidases from <i>Enterococcus faecium</i> and <i>Mycobacterium tuberculosis</i> . <i>Chemistry - A European Journal</i> , 2018, 24, 5743-5747.	1.7	44
24	Idiosyncratic features in tRNAs participating in bacterial cell wall synthesis. <i>Nucleic Acids Research</i> , 2007, 35, 6870-6883.	6.5	42
25	Activation of the $\beta$ -transpeptidation peptidoglycan cross-linking pathway by a metallo-carboxypeptidase in <i>Enterococcus faecium</i> . <i>Molecular Microbiology</i> , 2010, 75, 874-885.	1.2	39
26	Inhibition of $\beta$ -lactamases of mycobacteria by avibactam and clavulanate. <i>Journal of Antimicrobial Chemotherapy</i> , 2017, 72, dkw546.	1.3	39
27	Methicillin-Susceptible, Vancomycin-Resistant <i>Staphylococcus aureus</i> , Brazil. <i>Emerging Infectious Diseases</i> , 2015, 21, 1844-1848.	2.0	38
28	Impact of $\beta$ -Lactamase Inhibition on the Activity of Ceftaroline against <i>Mycobacterium tuberculosis</i> and <i>Mycobacterium abscessus</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2015, 59, 2938-2941.	1.4	37
29	Combinations of $\beta$ -Lactam Antibiotics Currently in Clinical Trials Are Efficacious in a DHP-I-Deficient Mouse Model of Tuberculosis Infection. <i>Antimicrobial Agents and Chemotherapy</i> , 2015, 59, 4997-4999.	1.4	37
30	Novel Mechanism of Resistance to Glycopeptide Antibiotics in <i>Enterococcus faecium</i> . <i>Journal of Biological Chemistry</i> , 2006, 281, 32254-32262.	1.6	36
31	Structure of <i>Enterococcus faecium</i> $\beta$ -Transpeptidase Acylated by Ertapenem Provides Insight into the Inactivation Mechanism. <i>ACS Chemical Biology</i> , 2013, 8, 1140-1146.	1.6	36
32	Synthesis of Avibactam Derivatives and Activity on $\beta$ -Lactamases and Peptidoglycan Biosynthesis Enzymes of Mycobacteria. <i>Chemistry - A European Journal</i> , 2018, 24, 8081-8086.	1.7	30
33	Dynamics Induced by $\beta$ -Lactam Antibiotics in the Active Site of <i>Bacillus subtilis</i> L,D-Transpeptidase. <i>Structure</i> , 2012, 20, 850-861.	1.6	29
34	Reversible inactivation of a peptidoglycan transpeptidase by a $\beta$ -lactam antibiotic mediated by $\beta$ -lactam-ring recyclization in the enzyme active site. <i>Scientific Reports</i> , 2017, 7, 9136.	1.6	29
35	Structural insight into YcbB-mediated beta-lactam resistance in <i>Escherichia coli</i> . <i>Nature Communications</i> , 2019, 10, 1849.	5.8	29
36	Hydrolysis of Clavulanate by <i>Mycobacterium tuberculosis</i> $\beta$ -Lactamase BlaC Harboring a Canonical SDN Motif. <i>Antimicrobial Agents and Chemotherapy</i> , 2015, 59, 5714-5720.	1.4	28

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37	Kinetic Analysis of Enterococcus faecium <i>l</i> , <i>d</i> -Transpeptidase Inactivation by Carbapenems. Antimicrobial Agents and Chemotherapy, 2012, 56, 3409-3412.	1.4	25
38	Routes of Synthesis of Carbapenems for Optimizing Both the Inactivation of <i>l</i> , <i>d</i> -Transpeptidase Ldt <sub>Mt1</sub> of <i>Mycobacterium tuberculosis</i> and the Stability toward Hydrolysis by $\hat{I}^2$ -Lactamase BlaC. Journal of Medicinal Chemistry, 2016, 59, 3427-3438.	2.9	23
39	Peptidoglycan Cross-Linking Activity of <i>l</i> , <i>d</i> -Transpeptidases from Clostridium difficile and Inactivation of These Enzymes by $\hat{I}^2$ -Lactams. Antimicrobial Agents and Chemotherapy, 2018, 62, .	1.4	23
40	Peptidoglycan Cross-Linking in Glycopeptide-Resistant Actinomycetales. Antimicrobial Agents and Chemotherapy, 2014, 58, 1749-1756.	1.4	22
41	Fighting resistant tuberculosis with old compounds: the carbapenem paradigm. Clinical Microbiology and Infection, 2011, 17, 1755-1756.	2.8	20
42	Discovery of the first inhibitors of bacterial enzyme d-aspartate ligase from Enterococcus faecium (Asl <sub>fm</sub> ). European Journal of Medicinal Chemistry, 2013, 67, 208-220.	2.6	19
43	Role of endopeptidases in peptidoglycan synthesis mediated by alternative cross-linking enzymes in <i>Escherichia coli</i> . EMBO Journal, 2021, 40, e108126.	3.5	13
44	Activity-Based Protein Profiling Reveals That Cephalosporins Selectively Active on Non-replicating <i>Mycobacterium tuberculosis</i> Bind Multiple Protein Families and Spare Peptidoglycan Transpeptidases. Frontiers in Microbiology, 2020, 11, 1248.	1.5	11
45	Tryptophan Fluorescence Quenching in $\hat{I}^2$ -Lactam-Interacting Proteins Is Modulated by the Structure of Intermediates and Final Products of the Acylation Reaction. ACS Infectious Diseases, 2019, 5, 1169-1176.	1.8	9
46	Mutation Landscape of Acquired Cross-Resistance to Glycopeptide and $\hat{I}^2$ -Lactam Antibiotics in Enterococcus faecium. Antimicrobial Agents and Chemotherapy, 2015, 59, 5306-5315.	1.4	7
47	Acyl acceptor recognition by <i>E. faecium l</i> , <i>d</i> -transpeptidase <i>L</i> <sub>fm</sub> . Molecular Microbiology, 2015, 98, 90-100.	1.2	6
48	Negative Impact of Carbapenem Methylation on the Reactivity of $\hat{I}^2$ -Lactams for Cysteine Acylation as Revealed by Quantum Calculations and Kinetic Analyses. Antimicrobial Agents and Chemotherapy, 2019, 63, .	1.4	5
49	Backbone and side-chain <sup>1</sup> H, <sup>15</sup> N and <sup>13</sup> C assignment of apo- and imipenem-acylated <i>l</i> , <i>d</i> -transpeptidase from <i>Bacillus subtilis</i> . Biomolecular NMR Assignments, 2012, 6, 205-208.	0.4	3
50	Crystallization and preliminary X-ray analysis of <i>Weissella viridescens</i> FemX UDP-MurNAc-pentapeptide:L-alanine ligase. Acta Crystallographica Section D: Biological Crystallography, 2003, 59, 1055-1057.	2.5	2
51	Chemical shift perturbations induced by the acylation of Enterococcus faecium <i>l</i> , <i>d</i> -transpeptidase catalytic cysteine with ertapenem. Biomolecular NMR Assignments, 2014, 8, 339-343.	0.4	2
52	Cloning, purification, crystallization and preliminary crystallographic analysis of a penicillin-binding protein homologue from <i>Pyrococcus abyssi</i> . Acta Crystallographica Section F: Structural Biology Communications, 2005, 61, 1006-1008.	0.7	1
53	<i>l</i> , <i>d</i> -Transpeptidase (Enterococcus). , 2013, , 2465-2472.		0