Alexander Tomasz

List of Publications by Citations

297 papers	30,251 citations	87 h-index	166 g-index
312 ext. papers	32,523 ext. citations	7.1 avg, IF	6.74 L-index

#	Paper	IF	Citations
297	Genome sequencing in microfabricated high-density picolitre reactors. *Nature*, **2005**, 437, 376-80	50.4	5971
296	Rapid pneumococcal evolution in response to clinical interventions. *Science*, **2011**, 331, 430-4	33.3	680
295	CD14 is a pattern recognition receptor. *Immunity*, **1994**, 1, 509-16	32.3	584
294	The development of vancomycin resistance in a patient with methicillin-resistant Staphylococcus aureus infection. *New England Journal of Medicine*, **1999**, 340, 517-23	59.2	509
293	Tracking the in vivo evolution of multidrug resistance in Staphylococcus aureus by whole-genome sequencing. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 9451-6	11.5	456
292	Nomenclature of major antimicrobial-resistant clones of Streptococcus pneumoniae defined by the pneumococcal molecular epidemiology network. *Journal of Clinical Microbiology*, **2001**, 39, 2565-71	9.7	447
291	Multiple antibiotic resistance in a bacterium with suppressed autolytic system. *Nature*, **1970**, 227, 138-40	50.4	380
290	Secrets of success of a human pathogen: molecular evolution of pandemic clones of meticillin-resistant Staphylococcus aureus. *Lancet Infectious Diseases, The*, **2002**, 2, 180-9	25.5	372
289	Intercontinental spread of a multiresistant clone of serotype 23F Streptococcus pneumoniae. *Journal of Infectious Diseases*, **1991**, 164, 302-6	7	365
288	Horizontal transfer of penicillin-binding protein genes in penicillin-resistant clinical isolates of Streptococcus pneumoniae. *Proceedings of the National Academy of Sciences of the United States of America*, **1989**, 86, 8842-6	11.5	345
287	The induction of meningeal inflammation by components of the pneumococcal cell wall. *Journal of Infectious Diseases*, **1985**, 151, 859-68	7	315
286	Multiple-antibiotic-resistant pathogenic bacteria. A report on the Rockefeller University Workshop. *New England Journal of Medicine*, **1994**, 330, 1247-51	59.2	306
285	Evidence for the introduction of a multiresistant clone of serotype 6B Streptococcus pneumoniae from Spain to Iceland in the late 1980s. *Journal of Infectious Diseases*, **1993**, 168, 158-63	7	292
284	An acquired and a native penicillin-binding protein cooperate in building the cell wall of drug-resistant staphylococci. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 10886-91	11.5	266
283	Mechanisms of vancomycin resistance in Staphylococcus aureus. *Journal of Clinical Investigation*, **2014**, 124, 2836-40	15.9	263
282	The evolution of methicillin resistance in Staphylococcus aureus: similarity of genetic backgrounds in historically early methicillin-susceptible and -resistant isolates and contemporary epidemic clones. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 9865-70	11.5	246
281	Expression of methicillin resistance in heterogeneous strains of Staphylococcus aureus. *Antimicrobial Agents and Chemotherapy*, **1986**, 29, 85-92	5.9	246

280	Molecular typing of methicillin-resistant Staphylococcus aureus by pulsed-field gel electrophoresis: comparison of results obtained in a multilaboratory effort using identical protocols and MRSA strains. *Microbial Drug Resistance*, **2000**, 6, 189-98	2.9	242
279	A Staphylococcus aureus autolysin that has an N-acetylmuramoyl-L-alanine amidase domain and an endo-beta-N-acetylglucosaminidase domain: cloning, sequence analysis, and characterization. *Proceedings of the National Academy of Sciences of the United States of America*, **1995**, 92, 285-9	11.5	241
278	Inhibition of cell wall turnover and autolysis by vancomycin in a highly vancomycin-resistant mutant of Staphylococcus aureus. *Journal of Bacteriology*, **1997**, 179, 2557-66	3.5	240
277	Stable classes of phenotypic expression in methicillin-resistant clinical isolates of staphylococci. *Antimicrobial Agents and Chemotherapy*, **1991**, 35, 124-9	5.9	240
276	Extremely high incidence of antibiotic resistance in clinical isolates of Streptococcus pneumoniae in Hungary. *Journal of Infectious Diseases*, **1991**, 163, 542-8	7	240
275	New mechanism for methicillin resistance in Staphylococcus aureus: clinical isolates that lack the PBP 2a gene and contain normal penicillin-binding proteins with modified penicillin-binding capacity. *Antimicrobial Agents and Chemotherapy*, **1989**, 33, 1869-74	5.9	238
274	The evolution of pandemic clones of methicillin-resistant Staphylococcus aureus: identification of two ancestral genetic backgrounds and the associated mec elements. *Microbial Drug Resistance*, **2001**, 7, 349-61	2.9	236
273	Choline-containing Teichoic Acid As a Structural Component of Pneumococcal Cell Wall and Its Role in Sensitivity to Lysis by an Autolytic Enzyme. *Journal of Biological Chemistry*, **1970**, 245, 287-298	5.4	233
272	Penicillin-binding proteins of multiply antibiotic-resistant South African strains of Streptococcus pneumoniae. *Antimicrobial Agents and Chemotherapy*, **1980**, 17, 434-42	5.9	223
271	The relative role of bacterial cell wall and capsule in the induction of inflammation in pneumococcal meningitis. *Journal of Infectious Diseases*, **1985**, 151, 535-40	7	217
270	Multiple changes of penicillin-binding proteins in penicillin-resistant clinical isolates of Streptococcus pneumoniae. *Antimicrobial Agents and Chemotherapy*, **1980**, 17, 364-71	5.9	203
269	The pgdA gene encodes for a peptidoglycan N-acetylglucosamine deacetylase in Streptococcus pneumoniae. *Journal of Biological Chemistry*, **2000**, 275, 20496-501	5.4	202
268	Sigma-B, a putative operon encoding alternate sigma factor of Staphylococcus aureus RNA polymerase: molecular cloning and DNA sequencing. *Journal of Bacteriology*, **1996**, 178, 6036-42	3.5	198
267	Antibiotic resistant Staphylococcus aureus: a paradigm of adaptive power. *Current Opinion in Microbiology*, **2007**, 10, 428-35	7.9	188
266	Mechanism of action of penicillin: triggering of the pneumococcal autolytic enzyme by inhibitors of cell wall synthesis. *Proceedings of the National Academy of Sciences of the United States of America*, **1975**, 72, 4162-6	11.5	187
265	Lipoteichoic acid: a specific inhibitor of autolysin activity in Pneumococcus. *Proceedings of the National Academy of Sciences of the United States of America*, **1975**, 72, 1690-4	11.5	187
264	Reassessment of the number of auxiliary genes essential for expression of high-level methicillin resistance in Staphylococcus aureus. *Antimicrobial Agents and Chemotherapy*, **1994**, 38, 2590-8	5.9	179
263	Multiple mechanisms of methicillin resistance and improved methods for detection in clinical isolates of Staphylococcus aureus. *Antimicrobial Agents and Chemotherapy*, **1991**, 35, 632-9	5.9	172

262	Antibiotic tolerance among clinical isolates of bacteria. *Antimicrobial Agents and Chemotherapy*, **1986**, 30, 521-7	5.9	172
261	Overexpression of genes of the cell wall stimulon in clinical isolates of Staphylococcus aureus exhibiting vancomycin-intermediate- S. aureus-type resistance to vancomycin. *Journal of Bacteriology*, **2006**, 188, 1120-33	3.5	170
260	Geographic distribution of penicillin-resistant clones of Streptococcus pneumoniae: characterization by penicillin-binding protein profile, surface protein A typing, and multilocus enzyme analysis. *Clinical Infectious Diseases*, **1992**, 15, 112-8	11.6	169
259	Biological consequences of the replacement of choline by ethanolamine in the cell wall of Pneumococcus: chanin formation, loss of transformability, and loss of autolysis. *Proceedings of the National Academy of Sciences of the United States of America*, **1968**, 59, 86-93	11.5	169
258	Control of the competent state in Pneumococcus by a hormone-like cell product: an example for a new type of regulatory mechanism in bacteria. *Nature*, **1965**, 208, 155-9	50.4	169
257	Antibiotic resistance in Streptococcus pneumoniae. *Clinical Infectious Diseases*, **1997**, 24 Suppl 1, S85-8	11.6	166
256	Molecular epidemiology of methicillin-resistant Staphylococcus aureus in 12 New York hospitals. MRSA Collaborative Study Group. *Journal of Infectious Diseases*, **1998**, 178, 164-71	7	158
255	Complementation of the essential peptidoglycan transpeptidase function of penicillin-binding protein 2 (PBP2) by the drug resistance protein PBP2A in Staphylococcus aureus. *Journal of Bacteriology*, **2001**, 183, 6525-31	3.5	156
254	Nonsteroidal anti-inflammatory agents in the therapy for experimental pneumococcal meningitis. *Journal of Infectious Diseases*, **1987**, 155, 985-90	7	155
253	Penicillin-binding proteins of penicillin-susceptible and intrinsically resistant Neisseria gonorrhoeae. *Antimicrobial Agents and Chemotherapy*, **1980**, 18, 730-7	5.9	153
252	Transmission of multidrug-resistant serotype 23F Streptococcus pneumoniae in group day care: evidence suggesting capsular transformation of the resistant strain in vivo. *Journal of Infectious Diseases*, **1995**, 171, 890-6	7	152
251	Tracking the evolutionary origin of the methicillin resistance gene: cloning and sequencing of a homologue of mecA from a methicillin susceptible strain of Staphylococcus sciuri. *Microbial Drug Resistance*, **1996**, 2, 435-41	2.9	147
250	Involvement of multiple genetic determinants in high-level methicillin resistance in Staphylococcus aureus. *Journal of Bacteriology*, **1989**, 171, 874-9	3.5	147
249	Recruitment of the mecA gene homologue of Staphylococcus sciuri into a resistance determinant and expression of the resistant phenotype in Staphylococcus aureus. *Journal of Bacteriology*, **2001**, 183, 2417-24	3.5	146
248	Alterations of cell wall structure and metabolism accompany reduced susceptibility to vancomycin in an isogenic series of clinical isolates of Staphylococcus aureus. *Journal of Bacteriology*, **2003**, 185, 7103-10	3.5	144
247	Inhibition of the expression of penicillin resistance in Streptococcus pneumoniae by inactivation of cell wall muropeptide branching genes. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 4891-6	11.5	144
246	Altered penicillin-binding proteins in methicillin-resistant strains of Staphylococcus aureus. *Antimicrobial Agents and Chemotherapy*, **1981**, 19, 726-35	5.9	144
245	Molecular aspects of methicillin resistance in Staphylococcus aureus. *Journal of Antimicrobial Chemotherapy*, **1994**, 33, 7-24	5.1	143

244	Methicillin-resistant Staphylococcus aureus disease in a Portuguese hospital: characterization of clonal types by a combination of DNA typing methods. *European Journal of Clinical Microbiology and Infectious Diseases*, **1994**, 13, 64-73	5.3	142
243	Ubiquitous presence of a mecA homologue in natural isolates of Staphylococcus sciuri. *Microbial Drug Resistance*, **1996**, 2, 377-91	2.9	139
242	Inhibition of bacterial wall lysins by lipoteichoic acids and related compounds. *Biochemical and Biophysical Research Communications*, **1975**, 67, 1128-35	3.4	139
241	Antibacterial efficacy of nisin against multidrug-resistant Gram-positive pathogens. *Journal of Antimicrobial Chemotherapy*, **1998**, 41, 341-7	5.1	135
240	Role of VraSR in antibiotic resistance and antibiotic-induced stress response in Staphylococcus aureus. *Antimicrobial Agents and Chemotherapy*, **2006**, 50, 3424-34	5.9	128
239	Capsular transformation of a multidrug-resistant Streptococcus pneumoniae in vivo. *Journal of Infectious Diseases*, **1998**, 177, 707-13	7	128
238	Methicillin-resistant Staphylococcus aureus emerged long before the introduction of methicillin into clinical practice. *Genome Biology*, **2017**, 18, 130	18.3	121
237	Evolution of a vancomycin-intermediate Staphylococcus aureus strain in vivo: multiple changes in the antibiotic resistance phenotypes of a single lineage of methicillin-resistant S. aureus under the impact of antibiotics administered for chemotherapy. *Journal of Clinical Microbiology*, **2003**, 41, 1687-93	9.7	121
236	A biological price of antibiotic resistance: major changes in the peptidoglycan structure of penicillin-resistant pneumococci. *Proceedings of the National Academy of Sciences of the United States of America*, **1990**, 87, 5415-9	11.5	121
235	Role of penicillin-binding protein 2 (PBP2) in the antibiotic susceptibility and cell wall cross-linking of Staphylococcus aureus: evidence for the cooperative functioning of PBP2, PBP4, and PBP2A. *Journal of Bacteriology*, **2005**, 187, 1815-24	3.5	120
234	Guidelines for reporting novel mecA gene homologues. *Antimicrobial Agents and Chemotherapy*, **2012**, 56, 4997-9	5.9	119
233	Decreased susceptibilities to teicoplanin and vancomycin among coagulase-negative methicillin-resistant clinical isolates of staphylococci. *Antimicrobial Agents and Chemotherapy*, **1998**, 42, 100-7	5.9	118
232	On the nature of the pneumococcal activator substance. *Proceedings of the National Academy of Sciences of the United States of America*, **1966**, 55, 58-66	11.5	116
231	Inactivation of the srtA gene affects localization of surface proteins and decreases adhesion of Streptococcus pneumoniae to human pharyngeal cells in vitro. *Infection and Immunity*, **2003**, 71, 2758-65	3.7	113
230	Cellular metabolism in genetic transformation of pneumococci: requirement for protein synthesis during induction of competence. *Journal of Bacteriology*, **1970**, 101, 860-71	3.5	106
229	Frequent recovery of a single clonal type of multidrug-resistant Staphylococcus aureus from patients in two hospitals in Taiwan and China. *Journal of Clinical Microbiology*, **2003**, 41, 159-63	9.7	104
228	Tolerant response of Streptococcus sanguis to beta-lactams and other cell wall inhibitors. *Antimicrobial Agents and Chemotherapy*, **1977**, 11, 888-96	5.9	99
227	Building the national health information infrastructure for personal health, health care services, public health, and research. *BMC Medical Informatics and Decision Making*, **2003**, 3, 1	3.6	98

226	Inactivated pbp4 in highly glycopeptide-resistant laboratory mutants of Staphylococcus aureus. *Journal of Biological Chemistry*, **1999**, 274, 18942-6	5.4	98
225	Penicillin-binding protein families: evidence for the clonal nature of penicillin resistance in clinical isolates of pneumococci. *Journal of Infectious Diseases*, **1989**, 159, 16-25	7	98
224	High rates of multiple antibiotic resistance in Streptococcus pneumoniae from healthy children living in isolated rural communities: association with cephalosporin use and intrafamilial transmission. *Pediatrics*, **2001**, 108, 856-65	7.4	97
223	Peptidoglycan N-acetylglucosamine deacetylase, a putative virulence factor in Streptococcus pneumoniae. *Infection and Immunity*, **2002**, 70, 7176-8	3.7	96
222	Model for the mechanism controlling the expression of competent state in Pneumococcus cultures. *Journal of Bacteriology*, **1966**, 91, 1050-61	3.5	96
221	A pneumococcal clinical isolate with high-level resistance to cefotaxime and ceftriaxone. *Antimicrobial Agents and Chemotherapy*, **1992**, 36, 886-9	5.9	94
220	Gradual alterations in cell wall structure and metabolism in vancomycin-resistant mutants of Staphylococcus aureus. *Journal of Bacteriology*, **1999**, 181, 7566-70	3.5	91
219	Genetic pathway in acquisition and loss of vancomycin resistance in a methicillin resistant Staphylococcus aureus (MRSA) strain of clonal type USA300. *PLoS Pathogens*, **2012**, 8, e1002505	7.6	90
218	Properties of a novel PBP2A protein homolog from Staphylococcus aureus strain LGA251 and its contribution to the β-lactam-resistant phenotype. *Journal of Biological Chemistry*, **2012**, 287, 36854-63	5.4	89
217	Characterization of Staphylococcus aureus cell wall glycan strands, evidence for a new beta-N-acetylglucosaminidase activity. *Journal of Biological Chemistry*, **2000**, 275, 9910-8	5.4	89
216	Altered muropeptide composition in Staphylococcus aureus strains with an inactivated femA locus. *Journal of Bacteriology*, **1993**, 175, 2779-82	3.5	89
215	Penicillin-binding proteins and the antibacterial effectiveness of beta-lactam antibiotics. *Clinical Infectious Diseases*, **1986**, 8 Suppl 3, S260-78	11.6	89
214	Penicillin tolerance in multiply drug-resistant natural isolates of Streptococcus pneumoniae. *Journal of Infectious Diseases*, **1985**, 152, 365-72	7	89
213	Increased amounts of a novel penicillin-binding protein in a strain of methicillin-resistant Staphylococcus aureus exposed to nafcillin. *Journal of Clinical Investigation*, **1985**, 76, 325-31	15.9	89
212	Requirements of peptidoglycan structure that allow detection by the Drosophila Toll pathway. *EMBO Reports*, **2005**, 6, 327-33	6.5	87
211	Abnormal peptidoglycan produced in a methicillin-resistant strain of Staphylococcus aureus grown in the presence of methicillin: functional role for penicillin-binding protein 2A in cell wall synthesis. *Antimicrobial Agents and Chemotherapy*, **1993**, 37, 342-6	5.9	87
210	Isolation and characterization of a Tn551-autolysis mutant of Staphylococcus aureus. *Journal of Bacteriology*, **1992**, 174, 4952-9	3.5	86
209	Pneumococcal Forssman Antigen. *Journal of Biological Chemistry*, **1973**, 248, 6394-6397	5.4	86

208	Two bactericidal targets for penicillin in pneumococci: autolysis-dependent and autolysis-independent killing mechanisms. *Antimicrobial Agents and Chemotherapy*, **1990**, 34, 33-9	5.9	85
207	Attenuation of penicillin resistance in a peptidoglycan O-acetyl transferase mutant of Streptococcus pneumoniae. *Molecular Microbiology*, **2006**, 61, 1497-509	4.1	83
206	Carriage of respiratory tract pathogens and molecular epidemiology of Streptococcus pneumoniae colonization in healthy children attending day care centers in Lisbon, Portugal. *Microbial Drug Resistance*, **1999**, 5, 19-29	2.9	80
205	Triggering of autolytic cell wall degradation in Escherichia coli by beta-lactam antibiotics. *Antimicrobial Agents and Chemotherapy*, **1979**, 16, 838-48	5.9	80
204	Topic: Methicillin-resistantStaphylococcus aureus and penicillin-resistant pneumococci. *Journal of Urban Health*, **1998**, 75, 510-510	5.8	78
203	Role of PBP1 in cell division of Staphylococcus aureus. *Journal of Bacteriology*, **2007**, 189, 3525-31	3.5	77
202	Development of methicillin resistance in clinical isolates of Staphylococcus sciuri by transcriptional activation of the mecA homologue native to s. *Journal of Bacteriology*, **2003**, 185, 645-53	3.5	77
201	Insertional inactivation of the major autolysin gene of Streptococcus pneumoniae. *Journal of Bacteriology*, **1988**, 170, 5931-4	3.5	77
200	Carriage of internationally spread clones of Streptococcus pneumoniae with unusual drug resistance patterns in children attending day care centers in Lisbon, Portugal. *Journal of Infectious Diseases*, **2000**, 182, 1153-60	7	76
199	THE FINE STRUCTURE OF DIPLOCOCCUS PNEUMONIAE. *Journal of Cell Biology*, **1964**, 22, 453-67	7.3	76
198	Identification of genetic determinants and enzymes involved with the amidation of glutamic acid residues in the peptidoglycan of Staphylococcus aureus. *PLoS Pathogens*, **2012**, 8, e1002508	7.6	73
197	Naturally occurring peptidoglycan variants of Streptococcus pneumoniae. *Journal of Bacteriology*, **1996**, 178, 168-74	3.5	71
196	High level oxacillin and vancomycin resistance and altered cell wall composition in Staphylococcus aureus carrying the staphylococcal mecA and the enterococcal vanA gene complex. *Journal of Biological Chemistry*, **2004**, 279, 3398-407	5.4	70
195	Isolation and analysis of cell wall components from Streptococcus pneumoniae. *Analytical Biochemistry*, **2012**, 421, 657-66	3.1	69
194	International clones of methicillin-resistant Staphylococcus aureus in two hospitals in Miami, Florida. *Journal of Clinical Microbiology*, **2004**, 42, 542-7	9.7	69
193	The role of autolysins in cell death. *Annals of the New York Academy of Sciences*, **1974**, 235, 439-47	6.5	69
192	Specificity of DNA uptake in genetic transformation of gonococci. *Biochemical and Biophysical Research Communications*, **1979**, 86, 97-104	3.4	68
191	Suppression of lytic effect of beta lactams on Escherichia coli and other bacteria. *Proceedings of the National Academy of Sciences of the United States of America*, **1976**, 73, 3293-7	11.5	68

190	Penicillin resistance and defective lysis in clinical isolates of pneumococci: evidence for two kinds of antibiotic pressure operating in the clinical environment. *Journal of Infectious Diseases*, **1988**, 157, 1150-7	7	67
189	Molecular epidemiologic characterization of penicillin-resistant Streptococcus pneumoniae invasive pediatric isolates recovered in six Latin-American countries: an overview. PAHO/Rockefeller University Workshop. Pan American Health Organization. *Microbial Drug Resistance*, **1998**, 4, 195-207	2.9	66
188	Wide geographic distribution of a unique methicillin-resistant Staphylococcus aureus clone in Hungarian hospitals. *Clinical Microbiology and Infection*, **1997**, 3, 289-296	9.5	65
187	Characterization of tRNA-dependent peptide bond formation by MurM in the synthesis of Streptococcus pneumoniae peptidoglycan. *Journal of Biological Chemistry*, **2008**, 283, 6402-17	5.4	65
186	Radioautographic evidence for equatorial wall growth in a gram-positive bacterium. Segregation of choline-3H-labeled teichoic acid. *Journal of Cell Biology*, **1970**, 47, 786-90	7.3	65
185	Insertional inactivation of the mec gene in a transposon mutant of a methicillin-resistant clinical isolate of Staphylococcus aureus. *Antimicrobial Agents and Chemotherapy*, **1990**, 34, 1777-9	5.9	64
184	Genetic organization of the mecA region in methicillin-susceptible and methicillin-resistant strains of Staphylococcus sciuri. *Journal of Bacteriology*, **1998**, 180, 236-42	3.5	62
183	Molecular epidemiology of penicillin-resistant Streptococcus pneumoniae isolates recovered in Italy from 1993 to 1996. *Journal of Clinical Microbiology*, **1998**, 36, 2944-9	9.7	62
182	Genetic diversity and clonal patterns among antibiotic-susceptible and -resistant Streptococcus pneumoniae colonizing children: day care centers as autonomous epidemiological units. *Journal of Clinical Microbiology*, **2000**, 38, 4137-44	9.7	62
181	Extensive and genome-wide changes in the transcription profile of Staphylococcus aureus induced by modulating the transcription of the cell wall synthesis gene murF. *Journal of Bacteriology*, **2007**, 189, 2376-91	3.5	60
180	Cloning, characterization, and inactivation of the gene pbpC, encoding penicillin-binding protein 3 of Staphylococcus aureus. *Journal of Bacteriology*, **2000**, 182, 1074-9	3.5	60
179	New faces of an old pathogen: emergence and spread of multidrug-resistant Streptococcus pneumoniae. *American Journal of Medicine*, **1999**, 107, 55S-62S	2.4	60
178	Fluorescence ratio imaging microscopy shows decreased access of vancomycin to cell wall synthetic sites in vancomycin-resistant Staphylococcus aureus. *Antimicrobial Agents and Chemotherapy*, **2007**, 51, 3627-33	5.9	59
177	The pneumococcus at the gates. *New England Journal of Medicine*, **1995**, 333, 514-5	59.2	59
176	A high incidence of prophage carriage among natural isolates of Streptococcus pneumoniae. *Journal of Bacteriology*, **1999**, 181, 3618-25	3.5	59
175	The mechanism of heterogeneous beta-lactam resistance in MRSA: key role of the stringent stress response. *PLoS ONE*, **2013**, 8, e82814	3.7	58
174	The femR315 gene from Staphylococcus aureus, the interruption of which results in reduced methicillin resistance, encodes a phosphoglucosamine mutase. *Journal of Bacteriology*, **1997**, 179, 5321-5	3.5	58
173	Transforming growth factor beta 2 inhibits cerebrovascular changes and brain edema formation in the tumor necrosis factor alpha-independent early phase of experimental pneumococcal meningitis. *Journal of Experimental Medicine*, **1992**, 176, 265-8	16.6	58

172	Alterations in penicillin-binding proteins of clinical and laboratory isolates of pathogenic Streptococcus pneumoniae with low levels of penicillin resistance. *Journal of Infectious Diseases*, **1986**, 153, 83-9	7	58
171	Variable recombination dynamics during the emergence, transmission and ?disarming?of a multidrug-resistant pneumococcal clone. *BMC Biology*, **2014**, 12, 49	7.3	57
170	Teichoic acid-containing muropeptides from Streptococcus pneumoniae as substrates for the pneumococcal autolysin. *Journal of Bacteriology*, **1987**, 169, 447-53	3.5	57
169	Penicillin-resistant and penicillin-tolerant mutants of group A Streptococci. *Antimicrobial Agents and Chemotherapy*, **1982**, 22, 128-36	5.9	57
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165	Novel penicillin-resistant clones of Streptococcus pneumoniae in the Czech Republic and in Slovakia. *Microbial Drug Resistance*, **1995**, 1, 71-8	2.9	54
164	A highly vancomycin-resistant laboratory mutant of Staphylococcus aureus. *FEMS Microbiology Letters*, **1996**, 142, 161-6	2.9	54
163	Novel determinants of antibiotic resistance: identification of mutated loci in highly methicillin-resistant subpopulations of methicillin-resistant Staphylococcus aureus. *MBio*, **2014**, 5, e01000	7.8	51
162	Whole-genome sequencing reveals a link between ?lactam resistance and synthetases of the alarmone (p)ppGpp in Staphylococcus aureus. *Microbial Drug Resistance*, **2013**, 19, 153-9	2.9	50
161	Characterization of the murMN operon involved in the synthesis of branched peptidoglycan peptides in Streptococcus pneumoniae. *Journal of Biological Chemistry*, **2000**, 275, 27768-74	5.4	50
160	A phosphoglucomutase-like gene essential for the optimal expression of methicillin resistance in Staphylococcus aureus: molecular cloning and DNA sequencing. *Microbial Drug Resistance*, **1996**, 2, 277-86	2.9	50
159	On the physiological functions of teichoic acids. *Journal of Supramolecular Structure*, **1975**, 3, 1-16		50
158	Heterogeneously vancomycin-resistant Staphylococcus epidermidis strain causing recurrent peritonitis in a dialysis patient during vancomycin therapy. *Journal of Clinical Microbiology*, **1999**, 37, 39-44	9.7	50
157	Testing the efficacy of a molecular surveillance network: methicillin-resistant Staphylococcus aureus (MRSA) and vancomycin-resistant Enterococcus faecium (VREF) genotypes in six hospitals in the metropolitan New York City area. The BARG Initiative Pilot Study Group. Bacterial Antibiotic Resistance Group. *Microbial Drug Resistance*, **1996**, 2, 343-51	2.9	49
156	Cocrystal structures of diaminopimelate decarboxylase: mechanism, evolution, and inhibition of an antibiotic resistance accessory factor. *Structure*, **2002**, 10, 1499-508	5.2	48
155	The role of complement in inflammation during experimental pneumococcal meningitis. *Microbial Pathogenesis*, **1986**, 1, 15-32	3.8	47

154	Antibiotic susceptibility of Streptococcus pneumoniae isolates in Portugal. A multicenter study between 1989 and 1993. *Microbial Drug Resistance*, **1995**, 1, 59-69	2.9	46
153	Evidence for the evolutionary steps leading to mecA-mediated -lactam resistance in staphylococci. *PLoS Genetics*, **2017**, 13, e1006674	6	44
152	Penicillin-binding proteins and cell wall composition in beta-lactam-sensitive and -resistant strains of Staphylococcus sciuri. *Journal of Bacteriology*, **2008**, 190, 508-14	3.5	44
151	Inhibition of the autolytic system by vancomycin causes mimicry of vancomycin-intermediate Staphylococcus aureus-type resistance, cell concentration dependence of the MIC, and antibiotic tolerance in vancomycin-susceptible S. aureus. *Antimicrobial Agents and Chemotherapy*, **2006**, 50, 527-33	5.9	44
150	Alterations in kinetic properties of penicillin-binding proteins of penicillin-resistant Streptococcus pneumoniae. *Antimicrobial Agents and Chemotherapy*, **1986**, 30, 57-63	5.9	44
149	Transglycosylase and endopeptidase participate in the degradation of murein during autolysis of Escherichia coli. *Journal of Bacteriology*, **1986**, 167, 759-65	3.5	44
148	Suppression of the lytic and bactericidal effects of cell wallinhibitory antibiotics. *Antimicrobial Agents and Chemotherapy*, **1976**, 10, 697-706	5.9	44
147	Evidence for a dual role of PBP1 in the cell division and cell separation of Staphylococcus aureus. *Molecular Microbiology*, **2009**, 72, 895-904	4.1	43
146	Autolysis and cell wall degradation in a choline-independent strain of Streptococcus pneumoniae. *Microbial Drug Resistance*, **1997**, 3, 391-400	2.9	43
145	The essential tacF gene is responsible for the choline-dependent growth phenotype of Streptococcus pneumoniae. *Journal of Bacteriology*, **2007**, 189, 7105-11	3.5	43
144	The nature of cell wall-derived inflammatory components of pneumococci. *Pediatric Infectious Disease Journal*, **1989**, 8, 902-3	3.4	43
143	Early stages in DNA binding and uptake during genetic transformation of pneumococci. *Proceedings of the National Academy of Sciences of the United States of America*, **1974**, 71, 1493-8	11.5	43
142	Distribution of the mosaic structured murM genes among natural populations of Streptococcus pneumoniae. *Journal of Bacteriology*, **2000**, 182, 6798-805	3.5	42
141	Hypersusceptibility of penicillin-treated group B streptococci to bactericidal activity of human polymorphonuclear leukocytes. *Antimicrobial Agents and Chemotherapy*, **1981**, 19, 745-53	5.9	41
140	Perturbation of cell wall synthesis suppresses autolysis in Staphylococcus aureus: evidence for coregulation of cell wall synthetic and hydrolytic enzymes. *Journal of Bacteriology*, **2007**, 189, 7573-80	3.5	40
139	Autolysis-resistant peptidoglycan of anomalous composition in amino-acid-starved Escherichia coli. *Journal of Bacteriology*, **1988**, 170, 1373-6	3.5	40
138	Effect of benzylpenicillin on the synthesis and structure of the cell envelope of Neisseria gonorrhoeae. *Antimicrobial Agents and Chemotherapy*, **1978**, 13, 514-26	5.9	40
137	Evolutionary Origin of the Staphylococcal Cassette Chromosome (SCC). *Antimicrobial Agents and Chemotherapy*, **2017**, 61,	5.9	39

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135	Penicillin-binding protein 2 is essential for expression of high-level vancomycin resistance and cell wall synthesis in vancomycin-resistant Staphylococcus aureus carrying the enterococcal vanA gene complex. *Antimicrobial Agents and Chemotherapy*, **2004**, 48, 4566-73	5.9	39
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