H Steven Seifert

List of Publications by Year
in descending order

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103 papers	5,885 citations	66234 42 h-index	82410 72 g-index
105 all docs	105 docs citations	105 times ranked	4346 citing authors

#	Article	IF	Citations
1	Single pilus motor forces exceed 100 pN. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 16012-16017.	3.3	358
2	Gonorrhoea. Nature Reviews Disease Primers, 2019, 5, 79.	18.1	284
3	An Alternative DNA Structure Is Necessary for Pilin Antigenic Variation in Neisseria gonorrhoeae. Science, 2009, 325, 764-767.	6.0	274
4	Processing-Independent CRISPR RNAs Limit Natural Transformation in Neisseria meningitidis. Molecular Cell, 2013, 50, 488-503.	4.5	256
5	Neisseria gonorrhoeae host adaptation and pathogenesis. Nature Reviews Microbiology, 2018, 16, 226-240.	13.6	220
6	Differential roles of homologous recombination pathways inNeisseria gonorrhoeaepilin antigenic variation, DNA transformation and DNA repair. Molecular Microbiology, 1998, 30, 697-710.	1.2	185
7	A variable genetic island specific for Neisseria gonorrhoeae is involved in providing DNA for natural transformation and is found more often in disseminated infection isolates. Molecular Microbiology, 2001, 41, 263-277.	1.2	173
8	Escherichia coli RecX Inhibits RecA Recombinase and Coprotease Activities in Vitro and in Vivo. Journal of Biological Chemistry, 2003, 278, 2278-2285.	1.6	161
9	Characterization of the pilF?pilD pilus-assembly locus of Neisseria gonorrhoeae. Molecular Microbiology, 1995, 16, 575-586.	1.2	159
10	A bacterial siren song: intimate interactions between Neisseria and neutrophils. Nature Reviews Microbiology, 2012, 10, 178-190.	13.6	127
11	A Homologue of the Recombination-Dependent Growth Gene, rdgC, Is Involved in Gonococcal Pilin Antigenic Variation. Genetics, 2000, 154, 523-532.	1.2	121
12	The outer membrane localization of the Neisseria gonorrhoeae MsrA/B is involved in survival against reactive oxygen species. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10108-10113.	3.3	120
13	The transcriptome response ofNeisseria gonorrhoeaeto hydrogen peroxide reveals genes with previously uncharacterized roles in oxidative damage protection. Molecular Microbiology, 2005, 58, 520-532.	1.2	117
14	Questions about gonococcal pilus phase- and antigenic variation. Molecular Microbiology, 1996, 21, 433-440.	1.2	112
15	The frequency and rate of pilin antigenic variation inNeisseria gonorrhoeae. Molecular Microbiology, 2005, 58, 510-519.	1.2	108
16	Molecular models accounting for the gene conversion reactions mediating gonococcal pilin antigenic variation. Molecular Microbiology, 2000, 37, 1146-1158.	1.2	101
17	The Genetics of Neisseria Species. Annual Review of Genetics, 2014, 48, 405-431.	3.2	99
18	Transcription of a cis-acting, Noncoding, Small RNA Is Required for Pilin Antigenic Variation in Neisseria gonorrhoeae. PLoS Pathogens, 2013, 9, e1003074.	2.1	97

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19	The recX gene potentiates homologous recombination in Neisseria gonorrhoeae. Molecular Microbiology, 2001, 40, 1301-1310.	1.2	94
20	Microbial antigenic variation mediated by homologous DNA recombination. FEMS Microbiology Reviews, 2012, 36, 917-948.	3.9	93
21	Roles of the recJ and recN Genes in Homologous Recombination and DNA Repair Pathways of Neisseria gonorrhoeae. Journal of Bacteriology, 2002, 184, 919-927.	1.0	91
22	Recombination, repair and replication in the pathogenic Neisseriae: the 3 Râ€²s of molecular genetics of two human-specific bacterial pathogens. Molecular Microbiology, 2003, 50, 3-13.	1.2	84
23	The Obligate Human Pathogen, Neisseria gonorrhoeae, Is Polyploid. PLoS Biology, 2006, 4, e185.	2.6	78
24	RecA-Binding pilE G4 Sequence Essential for Pilin Antigenic Variation Forms Monomeric and 5â€² End-Stacked Dimeric Parallel G-Quadruplexes. Structure, 2012, 20, 2090-2102.	1.6	78
25	ThepenCmutation conferring antibiotic resistance inNeisseria gonorrhoeaearises from a mutation in the PilQ secretin that interferes with multimer stability. Molecular Microbiology, 2005, 57, 1238-1251.	1.2	74
26	Neisseria gonorrhoeaesuppresses the oxidative burst of human polymorphonuclear leukocytes. Cellular Microbiology, 2008, 10, 2257-2270.	1.1	72
27	Resistance ofNeisseria gonorrhoeaeto non-oxidative killing by adherent human polymorphonuclear leucocytes. Cellular Microbiology, 2009, 11, 1074-1087.	1.1	71
28	Focusing homologous recombination: pilin antigenic variation in the pathogenic Neisseria. Molecular Microbiology, 2011, 81, 1136-1143.	1.2	70
29	Opportunity and Means: Horizontal Gene Transfer from the Human Host to a Bacterial Pathogen. MBio, 2011, 2, e00005-11.	1.8	68
30	Neisseria gonorrhoeae DNA Recombination and Repair Enzymes Protect against Oxidative Damage Caused by Hydrogen Peroxide. Journal of Bacteriology, 2006, 188, 7645-7651.	1.0	66
31	A genetic screen identifies genes and sites involved in pilin antigenic variation inNeisseria gonorrhoeae. Molecular Microbiology, 2005, 57, 468-483.	1.2	65
32	Low-Level Pilin Expression Allows for Substantial DNA Transformation Competence in Neisseria gonorrhoeae. Infection and Immunity, 2003, 71, 6279-6291.	1.0	63
33	Comparisons between Colony Phase Variation of Neisseria gonorrhoeae FA1090 and Pilus, Pilin, and S-Pilin Expression. Infection and Immunity, 1998, 66, 1918-1927.	1.0	55
34	Neisseria meningitidis Type IV Pili Composed of Sequence Invariable Pilins Are Masked by Multisite Glycosylation. PLoS Pathogens, 2015, 11, e1005162.	2.1	55
35	DNase H Activity of Neisseria meningitidis Cas9. Molecular Cell, 2015, 60, 242-255.	4.5	54
36	Neisseria gonorrhoeaesurvives within and modulates apoptosis and inflammatory cytokine production of human macrophages. Cellular Microbiology, 2016, 18, 546-560.	1.1	51

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37	A Mutant Form of the Neisseria gonorrhoeae Pilus Secretin Protein PilQ Allows Increased Entry of Heme and Antimicrobial Compounds. Journal of Bacteriology, 2004, 186, 730-739.	1.0	49
38	Inverse relationship between pilus-mediated gonococcal adherence and surface expression of the pilus receptor, CD46. Microbiology (United Kingdom), 2001, 147, 2333-2340.	0.7	49
39	Random shuttle mutagenesis: gonococcal mutants deficient in pilin antigenic variation. Molecular Microbiology, 1997, 23, 1121-1131.	1.2	48
40	Antigenic Variation in Bacterial Pathogens. Microbiology Spectrum, 2016, 4, .	1.2	47
41	Mutation of the priA Gene of Neisseria gonorrhoeae Affects DNA Transformation and DNA Repair. Journal of Bacteriology, 2005, 187, 5347-5355.	1.0	46
42	Frequency of Pilin Antigenic Variation in Neisseria gonorrhoeae. Journal of Bacteriology, 1998, 180, 1955-1958.	1.0	46
43	Loss of both Holliday junction processing pathways is synthetically lethal in the presence of gonococcal pilin antigenic variation. Molecular Microbiology, 2006, 61, 185-193.	1.2	45
44	DNA Uptake Sequence-Mediated Enhancement of Transformation in Neisseria gonorrhoeae Is Strain Dependent. Journal of Bacteriology, 2010, 192, 4436-4444.	1.0	45
45	Iron availability regulates DNA recombination in Neisseria gonorrhoeae. Molecular Microbiology, 2000, 37, 1075-1086.	1.2	44
46	Neisseria gonorrhoeae-Mediated Inhibition of Apoptotic Signalling in Polymorphonuclear Leukocytes. Infection and Immunity, 2011, 79, 4447-4458.	1.0	42
47	Neisseria gonorrhoeae Metalloprotease NGO1686 Is Required for Full Piliation, and Piliation Is Required for Resistance to H ₂ O ₂ - and Neutrophil-Mediated Killing. MBio, 2013, 4, .	1.8	42
48	Mobile DNA in the Pathogenic Neisseria. Microbiology Spectrum, 2015, 3, .	1.2	40
49	The size and position of heterologous insertions in a silent locus differentially affect pilin recombination in Neisseria gonorrhoeae. Molecular Microbiology, 1996, 22, 509-522.	1.2	39
50	A peptidoglycan hydrolase similar to bacteriophage endolysins acts as an autolysin in Neisseria gonorrhoeae. Molecular Microbiology, 1997, 25, 893-901.	1.2	39
51	Role of the Rep Helicase Gene in Homologous Recombination in Neisseria gonorrhoeae. Journal of Bacteriology, 2005, 187, 2903-2907.	1.0	38
52	Modulation of Gonococcal Piliation by Regulatable Transcription of pilE. Journal of Bacteriology, 2001, 183, 1600-1609.	1.0	35
53	Genomic Content ofNeisseriaSpecies. Journal of Bacteriology, 2010, 192, 2160-2168.	1.0	35
54	Frequency and Rate of Pilin Antigenic Variation of Neisseria meningitidis. Journal of Bacteriology, 2010, 192, 3822-3823.	1.0	34

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55	Less Is More: Neisseria gonorrhoeae RecX Protein Stimulates Recombination by Inhibiting RecA. Journal of Biological Chemistry, 2010, 285, 37188-37197.	1.6	33
56	pilQ Missense Mutations Have Diverse Effects on PilQ Multimer Formation, Piliation, and Pilus Function in Neisseria gonorrhoeae. Journal of Bacteriology, 2007, 189, 3198-3207.	1.0	32
57	Mismatch Correction Modulates Mutation Frequency and Pilus Phase and Antigenic Variation in Neisseria gonorrhoeae. Journal of Bacteriology, 2010, 192, 316-325.	1.0	29
58	Neisseria gonorrhoeae RecQ Helicase HRDC Domains Are Essential for Efficient Binding and Unwinding of the pilE Guanine Quartet Structure Required for Pilin Antigenic Variation. Journal of Bacteriology, 2013, 195, 2255-2261.	1.0	29
59	Neisseria gonorrhoeae Elicits Extracellular Traps in Primary Neutrophil Culture While Suppressing the Oxidative Burst. MBio, 2015, 6, .	1.8	29
60	Above and Beyond Watson and Crick: Guanine Quadruplex Structures and Microbes. Annual Review of Microbiology, 2018, 72, 49-69.	2.9	28
61	Pilin Antigenic Variation Occurs Independently of the RecBCD Pathway in Neisseria gonorrhoeae. Journal of Bacteriology, 2009, 191, 5613-5621.	1.0	27
62	Neisseria gonorrhoeae Virulence Factor NG1686 Is a Bifunctional M23B Family Metallopeptidase That Influences Resistance to Hydrogen Peroxide and Colony Morphology. Journal of Biological Chemistry, 2012, 287, 11222-11233.	1.6	27
63	Location, Location, Locationâ€"Commensalism, Damage and Evolution of the Pathogenic Neisseria. Journal of Molecular Biology, 2019, 431, 3010-3014.	2.0	27
64	Amidase Activity of AmiC Controls Cell Separation and Stem Peptide Release and Is Enhanced by NlpD in Neisseria gonorrhoeae. Journal of Biological Chemistry, 2016, 291, 10916-10933.	1.6	26
65	The Pilin N-terminal Domain Maintains Neisseria gonorrhoeae Transformation Competence during Pilus Phase Variation. PLoS Genetics, 2016, 12, e1006069.	1.5	26
66	The Gonococcal NlpD Protein Facilitates Cell Separation by Activating Peptidoglycan Cleavage by AmiC. Journal of Bacteriology, 2016, 198, 615-622.	1.0	25
67	Analysis of the Piv Recombinase-Related Gene Family of Neisseria gonorrhoeae. Journal of Bacteriology, 2005, 187, 1276-1286.	1.0	24
68	Gonococci exit apically and basally from polarized epithelial cells and exhibit dynamic changes in type IV pili. Cellular Microbiology, 2006, 8, 1430-1443.	1.1	24
69	Neisseria meningitidis Lacking the Major Porins PorA and PorB Is Viable and Modulates Apoptosis and the Oxidative Burst of Neutrophils. Journal of Proteome Research, 2016, 15, 2356-2365.	1.8	24
70	The DNAâ€binding activity of the Neisseria gonorrhoeae LexA orthologue NG1427 is modulated by oxidation. Molecular Microbiology, 2011, 79, 846-860.	1.2	23
71	Neisseria gonorrhoeae MutS Affects Pilin Antigenic Variation through Mismatch Correction and Not by pilE Guanine Quartet Binding. Journal of Bacteriology, 2015, 197, 1828-1838.	1.0	23
72	Insertion Mutations in pilE Differentially Alter Gonococcal Pilin Antigenic Variation. Journal of Bacteriology, 1999, 181, 6133-6141.	1.0	23

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73	A real-time semi-quantitative RT-PCR assay demonstrates that the pilE sequence dictates the frequency and characteristics of pilin antigenic variation in Neisseria gonorrhoeae. Nucleic Acids Research, 2005, 33, 3363-3371.	6.5	20
74	ksgA mutations confer resistance to kasugamycin in Neisseria gonorrhoeae. International Journal of Antimicrobial Agents, 2009, 33, 321-327.	1.1	19
75	Transposon Mutagenesis Identifies Sites Upstream of the Neisseria gonorrhoeae pilE Gene That Modulate Pilin Antigenic Variation. Journal of Bacteriology, 2007, 189, 3462-3470.	1.0	18
76	Seminal Plasma Promotes Neisseria gonorrhoeae Aggregation and Biofilm Formation. Journal of Bacteriology, 2016, 198, 2228-2235.	1.0	17
77	Differential cross-complementation patterns of Escherichia coli and Neisseria gonorrhoeae RecA proteins. Microbiology (United Kingdom), 2002, 148, 1821-1831.	0.7	17
78	Genetic Characterization of the Nucleotide Excision Repair System of Neisseria gonorrhoeae. Journal of Bacteriology, 2010, 192, 665-673.	1.0	16
79	Genetic transformation of Neisseria gonorrhoeae shows a strand preference. FEMS Microbiology Letters, 2012, 334, 44-48.	0.7	14
80	Transcriptional initiation of a small RNA, not Râ€loop stability, dictates the frequency of pilin antigenic variation in Neisseria gonorrhoeae. Molecular Microbiology, 2019, 112, 1219-1234.	1.2	14
81	Purification and Characterization of the RecA Protein from Neisseria gonorrhoeae. PLoS ONE, 2011, 6, e17101.	1.1	14
82	Seminal Plasma Initiates a Neisseria gonorrhoeae Transmission State. MBio, 2014, 5, e01004-13.	1.8	13
83	Analyzing Neisseria gonorrhoeae Pilin Antigenic Variation Using 454 Sequencing Technology. Journal of Bacteriology, 2016, 198, 2470-2482.	1.0	13
84	Neisseria gonorrhoeae Exposed to Sublethal Levels of Hydrogen Peroxide Mounts a Complex Transcriptional Response. MSystems, 2018, 3, .	1.7	13
85	The Neisseria gonorrhoeae photolyase orthologue phrB is required for proper DNA supercoiling but does not function in photo-reactivation. Molecular Microbiology, 2011, 79, 729-742.	1.2	12
86	Phase Variation Leads to the Misidentification of a Neisseria Gonorrhoeae Virulence Gene. PLoS ONE, 2013, 8, e72183.	1.1	12
87	The low-molecular-mass, penicillin-binding proteins DacB and DacC combine to modify peptidoglycan cross-linking and allow stable Type IV pilus expression inNeisseria gonorrhoeae. Molecular Microbiology, 2018, 109, 135-149.	1.2	11
88	Neisseria gonorrhoeaeand humans perform an evolutionary LINE dance. Mobile Genetic Elements, 2011, 1, 85-87.	1.8	10
89	Analysis of Pilin Antigenic Variation in Neisseria meningitidis by Next-Generation Sequencing. Journal of Bacteriology, 2018, 200, .	1.0	9
90	Altering theNeisseria gonorrhoeae pilEGuanine Quadruplex Loop Bases Affects Pilin Antigenic Variation. Biochemistry, 2020, 59, 1104-1112.	1.2	9

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91	A Double-Strand Break Does Not Promote Neisseria gonorrhoeae Pilin Antigenic Variation. Journal of Bacteriology, 2019, 201, .	1.0	8
92	PacBio Amplicon Sequencing Method To Measure Pilin Antigenic Variation Frequencies of Neisseria gonorrhoeae. MSphere, 2019, 4, .	1.3	5
93	Discovery of a New Neisseria gonorrhoeae Type IV Pilus Assembly Factor, TfpC. MBio, 2020, 11, .	1.8	5
94	Challenges and Controversies Concerning Neisseria gonorrhoeae-Neutrophil Interactions in Pathogenesis. MBio, 2021, 12, e0072121.	1.8	4
95	The Neisseria gonorrhoeae type IV pilus promotes resistance to hydrogen peroxide- and LL-37-mediated killing by modulating the availability of intracellular, labile iron. PLoS Pathogens, 2022, 18, e1010561.	2.1	4
96	Mobile DNA in the PathogenicNeisseria. , 2015, , 451-469.		3
97	Antigenic Variation in Bacterial Pathogens. , 0, , 445-480.		2
98	Haemophilus spills its guts to make a biofilm. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8444-8446.	3.3	2
99	A Case for the Evolution from Commensalism to Pathogenicity and Possibly Back Again: Lessons Learned from the Human-Adapted Neisseria Species. Grand Challenges in Biology and Biotechnology, 2018, , 327-370.	2.4	2
100	Recombination, repair and replication in the pathogenic Neisseriae: the 3 R's of molecular genetics of two human-specific bacterial pathogens. Molecular Microbiology, 2003, 51, 297-297.	1.2	1
101	R-loops modulate Trypanosome antigenic variation. PLoS Genetics, 2018, 14, e1007809.	1.5	1
102	Anti-psychotic drugs block meningococcal virulence. Nature Microbiology, 2019, 4, 906-907.	5.9	0
103	The Long and Winding Road (Apologies to the Beatles). PLoS Pathogens, 2015, 11, e1005094.	2.1	0