

# David E Heinrichs

## List of Publications by Year in descending order

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103  
papers

6,537  
citations

44069

48  
h-index

71685

76  
g-index

111  
all docs

111  
docs citations

111  
times ranked

6183  
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular basis for structural diversity in the core regions of the lipopolysaccharides of <i>Escherichia coli</i> and <i>Salmonella enterica</i> . <i>Molecular Microbiology</i> , 1998, 30, 221-232.	2.5	339
2	Recent developments in understanding the iron acquisition strategies of gram positive pathogens. <i>FEMS Microbiology Reviews</i> , 2015, 39, 592-630.	8.6	212
3	Cloning and sequence analysis of an EnvCD homologue in <i>Pseudomonas aeruginosa</i> : regulation by iron and possible involvement in the secretion of the siderophore pyoverdine. <i>Molecular Microbiology</i> , 1993, 10, 529-544.	2.5	207
4	Role of Siderophore Biosynthesis in Virulence of <i>Staphylococcus aureus</i> : Identification and Characterization of Genes Involved in Production of a Siderophore. <i>Infection and Immunity</i> , 2004, 72, 29-37.	2.2	185
5	Intracellular replication of <i>Staphylococcus aureus</i> in mature phagolysosomes in macrophages precedes host cell death, and bacterial escape and dissemination. <i>Cellular Microbiology</i> , 2016, 18, 514-535.	2.1	174
6	Distribution of Core Oligosaccharide Types in Lipopolysaccharides from <i>Escherichia coli</i> . <i>Infection and Immunity</i> , 2000, 68, 1116-1124.	2.2	170
7	Involvement of waaY, waaQ, and waaP in the Modification of <i>Escherichia coli</i> Lipopolysaccharide and Their Role in the Formation of a Stable Outer Membrane. <i>Journal of Biological Chemistry</i> , 1998, 273, 26310-26316.	3.4	167
8	Antimicrobial Mechanisms of Macrophages and the Immune Evasion Strategies of <i>Staphylococcus aureus</i> . <i>Pathogens</i> , 2015, 4, 826-868.	2.8	151
9	Haem recognition by a <i>Staphylococcus aureus</i> NEAT domain. <i>Molecular Microbiology</i> , 2007, 63, 139-149.	2.5	142
10	Demonstration of the Iron-regulated Surface Determinant (Isd) Heme Transfer Pathway in <i>Staphylococcus aureus</i> . <i>Journal of Biological Chemistry</i> , 2008, 283, 28125-28136.	3.4	142
11	Iron Acquisition Strategies of Bacterial Pathogens. <i>Microbiology Spectrum</i> , 2016, 4, .	3.0	134
12	Identification and Characterization of a Membrane Permease Involved in Iron-Hydroxamate Transport in <i>Staphylococcus aureus</i> . <i>Journal of Bacteriology</i> , 2000, 182, 4394-4400.	2.2	128
13	<i>Staphylococcus aureus</i> Fur Regulates the Expression of Virulence Factors That Contribute to the Pathogenesis of Pneumonia. <i>Infection and Immunity</i> , 2010, 78, 1618-1628.	2.2	127
14	Molecular characterization of staphyloferrin B biosynthesis in <i>Staphylococcus aureus</i> . <i>Molecular Microbiology</i> , 2009, 74, 594-608.	2.5	122
15	Toll-like receptor 2 ligands on the staphylococcal cell wall downregulate superantigen-induced T cell activation and prevent toxic shock syndrome. <i>Nature Medicine</i> , 2009, 15, 641-648.	30.7	121
16	Characterization of staphyloferrin A biosynthetic and transport mutants in <i>Staphylococcus aureus</i> . <i>Molecular Microbiology</i> , 2009, 72, 947-963.	2.5	120
17	<i>Staphylococcus aureus</i> Transporters Hts, Sir, and Sst Capture Iron Liberated from Human Transferrin by Staphyloferrin A, Staphyloferrin B, and Catecholamine Stress Hormones, Respectively, and Contribute to Virulence. <i>Infection and Immunity</i> , 2011, 79, 2345-2355.	2.2	115
18	NK Cells Play a Critical Protective Role in Host Defense against Acute Extracellular <i>Staphylococcus aureus</i> Bacterial Infection in the Lung. <i>Journal of Immunology</i> , 2008, 180, 5558-5568.	0.8	113

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19	Characterization of dTDP-4-dehydrorhamnose 3,5-Epimerase and dTDP-4-dehydrorhamnose Reductase, Required for dTDP-l-rhamnose Biosynthesis in Salmonella enterica Serovar Typhimurium LT2. Journal of Biological Chemistry, 1999, 274, 25069-25077.	3.4	111
20	<i>Staphylococcus aureus</i> Nonribosomal Peptide Secondary Metabolites Regulate Virulence. Science, 2010, 329, 294-296.	12.6	108
21	Staphylococcal Major Autolysin (Atl) Is Involved in Excretion of Cytoplasmic Proteins. Journal of Biological Chemistry, 2010, 285, 36794-36803.	3.4	105
22	Seasonal shifts in the insect gut microbiome are concurrent with changes in cold tolerance and immunity. Functional Ecology, 2018, 32, 2357-2368.	3.6	105
23	Transferrin binding in <i>Staphylococcus aureus</i> : involvement of a cell wall-anchored protein. Molecular Microbiology, 2002, 43, 1603-1614.	2.5	103
24	Identification and Characterization of fhuD1 and fhuD2 , Two Genes Involved in Iron-Hydroxamate Uptake in <i>Staphylococcus aureus</i> . Journal of Bacteriology, 2001, 183, 4994-5000.	2.2	102
25	Involvement of SirABC in Iron-Siderophore Import in <i>Staphylococcus aureus</i> . Journal of Bacteriology, 2004, 186, 8356-8362.	2.2	100
26	The Assembly System for the Lipopolysaccharide R2 Core-type of <i>Escherichia coli</i> Is a Hybrid of Those Found in <i>Escherichia coli</i> K-12 and <i>Salmonella enterica</i> . Journal of Biological Chemistry, 1998, 273, 8849-8859.	3.4	99
27	IsdB-dependent Hemoglobin Binding Is Required for Acquisition of Heme by <i>Staphylococcus aureus</i> . Journal of Infectious Diseases, 2014, 209, 1764-1772.	4.0	88
28	Requirement of <i>Staphylococcus aureus</i> ATP-Binding Cassette-ATPase FhuC for Iron-Restricted Growth and Evidence that It Functions with More than One Iron Transporter. Journal of Bacteriology, 2006, 188, 2048-2055.	2.2	87
29	Heme Coordination by <i>Staphylococcus aureus</i> IsdE. Journal of Biological Chemistry, 2007, 282, 28815-28822.	3.4	86
30	The Assembly System for the Outer Core Portion of R1- and R4-type Lipopolysaccharides of <i>Escherichia coli</i> . Journal of Biological Chemistry, 1998, 273, 29497-29505.	3.4	85
31	Branching Out: Alterations in Bacterial Physiology and Virulence Due to Branched-Chain Amino Acid Deprivation. MBio, 2018, 9, .	4.1	82
32	A Modulatory Interleukin-10 Response to Staphylococcal Peptidoglycan Prevents Th1/Th17 Adaptive Immunity to <i>Staphylococcus aureus</i> . Journal of Infectious Diseases, 2011, 204, 253-262.	4.0	78
33	Role of Lipase from Community-Associated Methicillin-Resistant <i>Staphylococcus aureus</i> Strain USA300 in Hydrolyzing Triglycerides into Growth-Inhibitory Free Fatty Acids. Journal of Bacteriology, 2014, 196, 4044-4056.	2.2	75
34	The <i>Pseudomonas aeruginosa</i> tonB gene encodes a novel TonB protein. Microbiology (United Kingdom), 2000, 140, 187-194.	1.8	74
35	The Role of FhuD2 in Iron(III)-Hydroxamate Transport in <i>Staphylococcus aureus</i> . Journal of Biological Chemistry, 2003, 278, 49890-49900.	3.4	72
36	Comparative and genetic analysis of the four sequenced <i>Paenibacillus polymyxa</i> genomes reveals a diverse metabolism and conservation of genes relevant to plant-growth promotion and competitiveness. BMC Genomics, 2014, 15, 851.	2.8	72

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37	Inhibition of expression of a staphylococcal superantigen-like protein by a soluble factor from <i>Lactobacillus reuteri</i> . <i>Microbiology (United Kingdom)</i> , 2006, 152, 1155-1167.	1.8	68
38	The <i>Staphylococcus aureus</i> Siderophore Receptor HtsA Undergoes Localized Conformational Changes to Enclose Staphyloferrin A in an Arginine-rich Binding Pocket. <i>Journal of Biological Chemistry</i> , 2010, 285, 11162-11171.	3.4	65
39	The <i>N</i> -Acetylmannosamine Transferase Catalyzes the First Committed Step of Teichoic Acid Assembly in <i>Bacillus subtilis</i> and <i>Staphylococcus aureus</i> . <i>Journal of Bacteriology</i> , 2009, 191, 4030-4034.	2.2	64
40	Pyoverdine-mediated iron transport in <i>Pseudomonas aeruginosa</i> : involvement of a high-molecular-mass outer membrane protein. <i>FEMS Microbiology Letters</i> , 1991, 78, 1-6.	1.8	63
41	<i>Staphylococcus aureus</i> exhibits heterogeneous siderophore production within the vertebrate host. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 21980-21982.	7.1	62
42	Characterization of the Heme Binding Properties of <i>Staphylococcus aureus</i> IsdA. <i>Biochemistry</i> , 2006, 45, 12867-12875.	2.5	61
43	Siderophore-mediated iron acquisition in the staphylococci. <i>Journal of Inorganic Biochemistry</i> , 2010, 104, 282-288.	3.5	60
44	Synthesis of L-2,3-Diaminopropionic Acid, a Siderophore and Antibiotic Precursor. <i>Chemistry and Biology</i> , 2014, 21, 379-388.	6.0	60
45	FhuD1, a Ferric Hydroxamate-binding Lipoprotein in <i>Staphylococcus aureus</i> . <i>Journal of Biological Chemistry</i> , 2004, 279, 53152-53159.	3.4	59
46	Inducible Expression of a Resistance-Nodulation-Division-Type Efflux Pump in <i>Staphylococcus aureus</i> Provides Resistance to Linoleic and Arachidonic Acids. <i>Journal of Bacteriology</i> , 2015, 197, 1893-1905.	2.2	58
47	<i>Staphylococcus aureus</i> Uses the GraXRS Regulatory System To Sense and Adapt to the Acidified Phagolysosome in Macrophages. <i>MBio</i> , 2018, 9, .	4.1	57
48	Discovery of an antivirulence compound that reverses $\beta$ -lactam resistance in MRSA. <i>Nature Chemical Biology</i> , 2020, 16, 143-149.	8.0	57
49	Specificity of Staphyloferrin B Recognition by the SirA Receptor from <i>Staphylococcus aureus</i> . <i>Journal of Biological Chemistry</i> , 2010, 285, 34579-34588.	3.4	56
50	Repression of branched-chain amino acid synthesis in <i>Staphylococcus aureus</i> is mediated by isoleucine via CodY, and by a leucine-rich attenuator peptide. <i>PLoS Genetics</i> , 2018, 14, e1007159.	3.5	55
51	Stress-induced inactivation of the <i>Staphylococcus aureus</i> purine biosynthesis repressor leads to hypervirulence. <i>Nature Communications</i> , 2019, 10, 775.	12.8	54
52	Role of BrnQ1 and BrnQ2 in Branched-Chain Amino Acid Transport and Virulence in <i>Staphylococcus aureus</i> . <i>Infection and Immunity</i> , 2015, 83, 1019-1029.	2.2	49
53	In vivo heme scavenging by <i>Staphylococcus aureus</i> IsdC and IsdE proteins. <i>Biochemical and Biophysical Research Communications</i> , 2004, 320, 781-788.	2.1	46
54	Heme binding in the NEAT domains of IsdA and IsdC of <i>Staphylococcus aureus</i> . <i>Journal of Inorganic Biochemistry</i> , 2008, 102, 480-488.	3.5	44

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55	A Heme-responsive Regulator Controls Synthesis of Staphyloferrin B in <i>Staphylococcus aureus</i> . <i>Journal of Biological Chemistry</i> , 2016, 291, 29-40.	3.4	44
56	TCA cycle activity in <i>S. aureus</i> is essential for iron-regulated synthesis of staphyloferrin A, but not staphyloferrin B: the benefit of a second citrate synthase. <i>Molecular Microbiology</i> , 2014, 92, 824-839.	2.5	42
57	Induction of the Staphylococcal Proteolytic Cascade by Antimicrobial Fatty Acids in Community Acquired Methicillin Resistant <i>Staphylococcus aureus</i> . <i>PLoS ONE</i> , 2012, 7, e45952.	2.5	40
58	The iron-regulated staphylococcal lipoproteins. <i>Frontiers in Cellular and Infection Microbiology</i> , 2012, 2, 41.	3.9	40
59	The role of two branched-chain amino acid transporters in <i>S. aureus</i> growth, membrane fatty acid composition and virulence. <i>Molecular Microbiology</i> , 2016, 102, 850-864.	2.5	40
60	Mutation of L-2,3-diaminopropionic acid synthase genes blocks staphyloferrin B synthesis in <i>Staphylococcus aureus</i> . <i>BMC Microbiology</i> , 2011, 11, 199.	3.3	38
61	Paradoxical acclimation responses in the thermal performance of insect immunity. <i>Oecologia</i> , 2016, 181, 77-85.	2.0	38
62	Heme Binding Properties of <i>Staphylococcus aureus</i> IsdE. <i>Biochemistry</i> , 2007, 46, 12777-12787.	2.5	35
63	Multiprotein Heme Shuttle Pathway in <i>Staphylococcus aureus</i> : Iron-Regulated Surface Determinant Cog-Wheel Kinetics. <i>Journal of the American Chemical Society</i> , 2012, 134, 16578-16585.	13.7	34
64	Nucleotide biosynthesis: the base of bacterial pathogenesis. <i>Trends in Microbiology</i> , 2022, 30, 793-804.	7.7	34
65	Identification of Key Determinants of <i>Staphylococcus aureus</i> Vaginal Colonization. <i>MBio</i> , 2019, 10, .	4.1	33
66	Evidence for siderophore-dependent iron acquisition in group B streptococcus. <i>Molecular Microbiology</i> , 2006, 59, 707-721.	2.5	32
67	Iron acquisition by the haem-binding Isd proteins in <i>Staphylococcus aureus</i> : studies of the mechanism using magnetic circular dichroism. <i>Biochemical Society Transactions</i> , 2008, 36, 1138-1143.	3.4	31
68	Crystal and Solution Structure Analysis of FhuD2 from <i>Staphylococcus aureus</i> in Multiple Unliganded Conformations and Bound to Ferrioxamine-B. <i>Biochemistry</i> , 2014, 53, 2017-2031.	2.5	31
69	Discovery of an Iron-Regulated Citrate Synthase in <i>Staphylococcus aureus</i> . <i>Chemistry and Biology</i> , 2012, 19, 1568-1578.	6.0	30
70	Coagulase-negative staphylococci release a purine analog that inhibits <i>Staphylococcus aureus</i> virulence. <i>Nature Communications</i> , 2021, 12, 1887.	12.8	27
71	De Novo Purine Biosynthesis Is Required for Intracellular Growth of <i>Staphylococcus aureus</i> and for the Hypervirulence Phenotype of a <i>purR</i> Mutant. <i>Infection and Immunity</i> , 2020, 88, .	2.2	24
72	Deciphering the Substrate Specificity of SbnA, the Enzyme Catalyzing the First Step in Staphyloferrin B Biosynthesis. <i>Biochemistry</i> , 2016, 55, 927-939.	2.5	22

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73	Competing for Iron: Duplication and Amplification of the <i>isd</i> Locus in <i>Staphylococcus lugdunensis</i> HKU09-01 Provides a Competitive Advantage to Overcome Nutritional Limitation. <i>PLoS Genetics</i> , 2016, 12, e1006246.	3.5	22
74	The <i>yjeQ</i> Gene Is Required for Virulence of <i>Staphylococcus aureus</i> . <i>Infection and Immunity</i> , 2006, 74, 4918-4921.	2.2	21
75	Deferoxamine mesylate enhances virulence of community-associated methicillin resistant <i>Staphylococcus aureus</i> . <i>Microbes and Infection</i> , 2014, 16, 967-972.	1.9	20
76	Growth promotion of the opportunistic human pathogen, <i>Staphylococcus lugdunensis</i> , by heme, hemoglobin, and coculture with <i>Staphylococcus aureus</i> . <i>MicrobiologyOpen</i> , 2014, 3, 182-195.	3.0	20
77	Involvement of major facilitator superfamily proteins SfaA and SbnD in staphyloferrin secretion in <i>Staphylococcus aureus</i> . <i>FEBS Letters</i> , 2015, 589, 730-737.	2.8	19
78	DNA Binding and Sensor Specificity of FarR, a Novel TetR Family Regulator Required for Induction of the Fatty Acid Efflux Pump FarE in <i>Staphylococcus aureus</i> . <i>Journal of Bacteriology</i> , 2019, 201, .	2.2	19
79	An ECF-type transporter scavenges heme to overcome iron-limitation in <i>Staphylococcus lugdunensis</i> . <i>ELife</i> , 2020, 9, .	6.0	19
80	SbnG, a Citrate Synthase in <i>Staphylococcus aureus</i> . <i>Journal of Biological Chemistry</i> , 2014, 289, 33797-33807.	3.4	18
81	A Fluorescence Based-Proliferation Assay for the Identification of Replicating Bacteria Within Host Cells. <i>Frontiers in Microbiology</i> , 2018, 9, 3084.	3.5	18
82	Superantigens promote <i>Staphylococcus aureus</i> bloodstream infection by eliciting pathogenic interferon-gamma production. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	17
83	Involvement of reductases <i>ruO</i> and <i>NtrA</i> in iron acquisition by <i>Staphylococcus aureus</i> . <i>Molecular Microbiology</i> , 2015, 96, 1192-1210.	2.5	16
84	The Staphylococci and Staphylococcal Pathogenesis. <i>Frontiers in Cellular and Infection Microbiology</i> , 2012, 2, 66.	3.9	15
85	Population Analysis of <i>Staphylococcus aureus</i> Reveals a Cryptic, Highly Prevalent Superantigen SEIW That Contributes to the Pathogenesis of Bacteremia. <i>MBio</i> , 2020, 11, .	4.1	14
86	Rapid removal of phagosomal ferroportin in macrophages contributes to nutritional immunity. <i>Blood Advances</i> , 2021, 5, 459-474.	5.2	13
87	SbnI is a free serine kinase that generates -phospho-l-serine for staphyloferrin B biosynthesis in. <i>Journal of Biological Chemistry</i> , 2018, 293, 6147-6160.	3.4	12
88	Macrophage-driven nutrient delivery to phagosomal <i>Staphylococcus aureus</i> supports bacterial growth. <i>EMBO Reports</i> , 2020, 21, e50348.	4.5	12
89	Characterization of IsdH (NEAT domain 3) and IsdB (NEAT domain 2) in <i>Staphylococcus aureus</i> by magnetic circular dichroism spectroscopy and electrospray ionization mass spectrometry. <i>Journal of Porphyrins and Phthalocyanines</i> , 2009, 13, 1006-1016.	0.8	11
90	Identification of a Positively Charged Platform in <i>Staphylococcus aureus</i> HtsA That Is Essential for Ferric Staphyloferrin A Transport. <i>Biochemistry</i> , 2014, 53, 5060-5069.	2.5	11

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91	The heme-sensitive regulator SbnI has a bifunctional role in staphyloferrin B production by <i>Staphylococcus aureus</i> . <i>Journal of Biological Chemistry</i> , 2019, 294, 11622-11636.	3.4	11
92	Heme-Dependent Siderophore Utilization Promotes Iron-Restricted Growth of the <i>Staphylococcus aureus</i> <i>hemB</i> Small-Colony Variant. <i>Journal of Bacteriology</i> , 2021, 203, e0045821.	2.2	10
93	The surreptitious survival of the emerging pathogen <i>Staphylococcus lugdunensis</i> within macrophages as an immune evasion strategy. <i>Cellular Microbiology</i> , 2018, 20, e12869.	2.1	9
94	Protoporphyrin IX and heme binding properties of <i>Staphylococcus aureus</i> IsdC. <i>Journal of Porphyrins and Phthalocyanines</i> , 2007, 11, 165-171.	0.8	8
95	Receptor-Interacting Protein-2 Deficiency Delays Macrophage Migration and Increases Intracellular Infection during Peritoneal Dialysis-Associated Peritonitis. <i>American Journal of Nephrology</i> , 2008, 28, 879-889.	3.1	8
96	Iron Acquisition Strategies of Bacterial Pathogens. , 0, , 43-85.		7
97	In vivo growth of <i>Staphylococcus lugdunensis</i> is facilitated by the concerted function of heme and non-heme iron acquisition mechanisms. <i>Journal of Biological Chemistry</i> , 2022, 298, 101823.	3.4	6
98	Demonstration of the functional role of conserved Glu-Arg residues in the <i>Staphylococcus aureus</i> ferrichrome transporter. <i>BioMetals</i> , 2014, 27, 143-153.	4.1	5
99	<i>Staphylococcus</i> , <i>Streptococcus</i> , and <i>Bacillus</i> . , 0, , 387-401.		5
100	Mutations in a Membrane Permease or hpt Lead to 6-Thioguanine Resistance in <i>Staphylococcus aureus</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2021, 65, e0076021.	3.2	3
101	Draft Genome Sequence of <i>Staphylococcus chromogenes</i> ATCC 43764, a Coagulase-Negative <i>Staphylococcus</i> Strain with Antibacterial Potential. <i>Microbiology Resource Announcements</i> , 2021, 10, e0049221.	0.6	2
102	GraXRS-Dependent Resistance of <i>Staphylococcus aureus</i> to Human Osteoarthritic Synovial Fluid. <i>MSphere</i> , 2021, 6, .	2.9	0
103	Transition Metal Ion Homeostasis. , 2016, , 171-220.		0