Michael Chandler

List of Publications by Citations

162 papers	8,925 citations	49 h-index	92 g-index
183 ext. papers	10,380 ext. citations	10.2 avg, IF	5.94 L-index

#	Paper	IF	Citations
162	Insertion sequences. *Microbiology and Molecular Biology Reviews*, **1998**, 62, 725-74	13.2	1115
161	Genome sequence of the plant pathogen Ralstonia solanacearum. *Nature*, **2002**, 415, 497-502	50.4	716
160	The genome sequence of the entomopathogenic bacterium Photorhabdus luminescens. *Nature Biotechnology*, **2003**, 21, 1307-13	44.5	485
159	Bacterial insertion sequences: their genomic impact and diversity. *FEMS Microbiology Reviews*, **2014**, 38, 865-91	15.1	287
158	ISsaga is an ensemble of web-based methods for high throughput identification and semi-automatic annotation of insertion sequences in prokaryotic genomes. *Genome Biology*, **2011**, 12, R30	18.3	202
157	Translational frameshifting in the control of transposition in bacteria. *Molecular Microbiology*, **1993**, 7, 497-503	4.1	191
156	Bacterial transposases and retroviral integrases. *Molecular Microbiology*, **1995**, 15, 13-23	4.1	184
155	Insertion Sequence IS26 Reorganizes Plasmids in Clinically Isolated Multidrug-Resistant Bacteria by Replicative Transposition. *MBio*, **2015**, 6, e00762	7.8	177
154	Insertion sequences in prokaryotic genomes. *Current Opinion in Microbiology*, **2006**, 9, 526-31	7.9	173
153	Breaking and joining single-stranded DNA: the HUH endonuclease superfamily. *Nature Reviews Microbiology*, **2013**, 11, 525-38	22.2	158
152	The impact of insertion sequences on bacterial genome plasticity and adaptability. *Critical Reviews in Microbiology*, **2017**, 43, 709-730	7.8	157
151	A tale of two oxidation states: bacterial colonization of arsenic-rich environments. *PLoS Genetics*, **2007**, 3, e53	6	148
150	Revised nomenclature for transposable genetic elements. *Plasmid*, **2008**, 60, 167-73	3.3	143
149	Regulation of transposition in bacteria. *Research in Microbiology*, **2004**, 155, 387-98	4	141
148	Alliance of proteomics and genomics to unravel the specificities of Sahara bacterium Deinococcus deserti. *PLoS Genetics*, **2009**, 5, e1000434	6	128
147	Programmed translational frameshifting and initiation at an AUU codon in gene expression of bacterial insertion sequence IS911. *Journal of Molecular Biology*, **1991**, 222, 465-77	6.5	119
146	Escherichia coli integration host factor binds specifically to the ends of the insertion sequence IS1 and to its major insertion hot-spot in pBR322. *Journal of Molecular Biology*, **1987**, 195, 261-72	6.5	114

145	Cointegrate formation mediated by Tn9. II. Activity of IS1 is modulated by external DNA sequences. *Journal of Molecular Biology*, **1983**, 170, 61-91	6.5	114
144	Insertion sequence diversity in archaea. *Microbiology and Molecular Biology Reviews*, **2007**, 71, 121-57	13.2	112
143	A Model for Transposition of the Colistin Resistance Gene mcr-1 by ISApl1. *Antimicrobial Agents and Chemotherapy*, **2016**, 60, 6973-6976	5.9	107
142	Everyman's Guide to Bacterial Insertion Sequences. *Microbiology Spectrum*, **2015**, 3, MDNA3-0030-2014	8.9	107
141	Integrating prokaryotes and eukaryotes: DNA transposases in light of structure. *Critical Reviews in Biochemistry and Molecular Biology*, **2010**, 45, 50-69	8.7	107
140	I am what I eat and I eat what I am: acquisition of bacterial genes by giant viruses. *Trends in Genetics* , **2007**, 23, 10-5	8.5	105
139	Structure, function, and evolution of the Thiomonas spp. genome. *PLoS Genetics*, **2010**, 6, e1000859	6	101
138	Replication of prophage P1 during the cell cycle of Escherichia coli. *Molecular Genetics and Genomics*, **1977**, 152, 71-6		94
137	Phylogenetic evidence for extensive lateral acquisition of cellular genes by Nucleocytoplasmic large DNA viruses. *BMC Evolutionary Biology*, **2008**, 8, 320	3	93
136	Replication of pSC101: effects of mutations in the E. coli DNA binding protein IHF. *Molecular Genetics and Genomics*, **1986**, 204, 85-9		93
135	Mechanism of IS200/IS605 family DNA transposases: activation and transposon-directed target site selection. *Cell*, **2008**, 132, 208-20	56.2	91
134	IS elements as constituents of bacterial genomes. *Research in Microbiology*, **1999**, 150, 675-87	4	86
133	Structure and stability of Tn9-mediated cointegrates. Evidence for two pathways of transposition. *Journal of Molecular Biology*, **1982**, 154, 245-72	6.5	79
132	The effects of an Escherichia coli dnaAts mutation on the replication of the plasmids colE1 pSC101, R100.1 and RTF-TC. *Molecular Genetics and Genomics*, **1979**, 174, 117-26		74
131	The effect of gene concentration and relative gene dosage on gene output in Escherichia coli. *Molecular Genetics and Genomics*, **1975**, 138, 127-41		74
130	Functional promoters created by the insertion of transposable element IS1. *Journal of Molecular Biology*, **1986**, 191, 383-93	6.5	73
129	The replication time of the Escherichia coli K12 chromosome as a function of cell doubling time. *Journal of Molecular Biology*, **1975**, 94, 127-32	6.5	70
128	The arthrobacter arilaitensis Re117 genome sequence reveals its genetic adaptation to the surface of cheese. *PLoS ONE*, **2010**, 5, e15489	3.7	60

127	Assembly of a strong promoter following IS911 circularization and the role of circles in transposition. *EMBO Journal*, **1997**, 16, 3357-71	13	60
126	Independence of F replication and chromosome replication in Escherichia coli. *Molecular Genetics and Genomics*, **1975**, 138, 143-55		60
125	Active site sharing and subterminal hairpin recognition in a new class of DNA transposases. *Molecular Cell*, **2005**, 20, 143-54	17.6	59
124	Transposition of ISHp608, member of an unusual family of bacterial insertion sequences. *EMBO Journal*, **2005**, 24, 3325-38	13	59
123	Playing second fiddle: second-strand processing and liberation of transposable elements from donor DNA. *Trends in Microbiology*, **2000**, 8, 268-74	12.4	58
122	IS911-mediated transpositional recombination in vitro. *Journal of Molecular Biology*, **1996**, 264, 68-81	6.5	58
121	In vitro reconstitution of a single-stranded transposition mechanism of IS608. *Molecular Cell*, **2008**, 29, 302-12	17.6	57
120	Specificity of insertion of IS1. *Journal of Molecular Biology*, **1985**, 185, 517-24	6.5	56
119	Single-stranded DNA transposition is coupled to host replication. *Cell*, **2010**, 142, 398-408	56.2	55
118	Induction of the SOS response by IS1 transposase. *Journal of Molecular Biology*, **1994**, 242, 339-50	6.5	55
117	The Birth and Demise of the IS--IS Composite Transposon: the Vehicle for Transferable Colistin Resistance. *MBio*, **2018**, 9,	7.8	54
116	Gene exchange and the origin of giant viruses. *Intervirology*, **2010**, 53, 354-61	2.5	54
115	The transposition frequency of IS1-flanked transposons is a function of their size. *Journal of Molecular Biology*, **1982**, 154, 229-43	6.5	53
114	Efficient transposition of IS911 circles in vitro. *EMBO Journal*, **1998**, 17, 1169-81	13	51
113	Requirement of IS911 replication before integration defines a new bacterial transposition pathway. *EMBO Journal*, **2004**, 23, 3897-906	13	49
112	Involvement of IS1 in the dissociation of the r-determinant and RTF components of the plasmid R100.1. *Molecular Genetics and Genomics*, **1977**, 153, 289-95		46
111	Irradiation-induced Deinococcus radiodurans genome fragmentation triggers transposition of a single resident insertion sequence. *PLoS Genetics*, **2010**, 6, e1000799	6	45
110	Multiple oligomerisation domains in the IS911 transposase: a leucine zipper motif is essential for activity. *Journal of Molecular Biology*, **1998**, 283, 29-41	6.5	40

109	The transpososome: control of transposition at the level of catalysis. *Trends in Microbiology*, **2005**, 13, 543-9	12.4	39
108	Expression of F transfer functions depends on the Escherichia coli integration host factor. *Molecular Genetics and Genomics*, **1987**, 207, 302-5		38
107	The structure of R1drd19: a revised physical map of the plasmid. *Molecular Genetics and Genomics*, **1981**, 181, 183-91		38
106	Prokaryote genome fluidity: toward a system approach of the mobilome. *Methods in Molecular Biology*, **2012**, 804, 57-80	1.4	37
105	Tn10 mediated integration of the plasmid R100.1 into the bacterial chromosome: inverse transposition. *Molecular Genetics and Genomics*, **1979**, 173, 23-30		36
104	Some properties of the chloramphenicol resistance transposon Tn9. *Molecular Genetics and Genomics*, **1979**, 176, 221-31		36
103	The diversity of prokaryotic DDE transposases of the mutator superfamily, insertion specificity, and association with conjugation machineries. *Genome Biology and Evolution*, **2014**, 6, 260-72	3.9	35
102	The new IS1595 family, its relation to IS1 and the frontier between insertion sequences and transposons. *Research in Microbiology*, **2009**, 160, 232-41	4	35
101	IS911 transpososome assembly as analysed by tethered particle motion. *Nucleic Acids Research*, **2006**, 34, 4313-23	20.1	35
100	Diversity of Tn4001 transposition products: the flanking IS256 elements can form tandem dimers and IS circles. *Journal of Bacteriology*, **2002**, 184, 433-43	3.5	35
99	Interaction of Fis protein with DNA: bending and specificity of binding. *Biochimie*, **1994**, 76, 958-67	4.6	35
98	Mapping of the drug resistance genes carried by the r-determinant of the R100.1 plasmid. *Molecular Genetics and Genomics*, **1977**, 157, 17-23		35
97	IS911 transposition is regulated by protein-protein interactions via a leucine zipper motif. *Journal of Molecular Biology*, **2000**, 296, 757-68	6.5	34
96	A TALE of transposition: Tn3-like transposons play a major role in the spread of pathogenicity determinants of Xanthomonas citri and other xanthomonads. *MBio*, **2015**, 6, e02505-14	7.8	33
95	ISbrowser: an extension of ISfinder for visualizing insertion sequences in prokaryotic genomes. *Nucleic Acids Research*, **2010**, 38, D62-8	20.1	33
94	DNA recognition and the precleavage state during single-stranded DNA transposition in D. radiodurans. *EMBO Journal*, **2010**, 29, 3840-52	13	32
93	Mechanisms of Evolution in High-Consequence Drug Resistance Plasmids. *MBio*, **2016**, 7,	7.8	32
92	Structuring the bacterial genome: Y1-transposases associated with REP-BIME sequences. *Nucleic Acids Research*, **2012**, 40, 3596-609	20.1	31

91	Transient promoter formation: a new feedback mechanism for regulation of IS911 transposition. *EMBO Journal*, **2001**, 20, 5802-11	13	31
90	The terminal inverted repeats of IS911: requirements for synaptic complex assembly and activity. *Journal of Molecular Biology*, **2001**, 308, 853-71	6.5	31
89	The emerging diversity of transpososome architectures. *Quarterly Reviews of Biophysics*, **2012**, 45, 493-521	7	30
88	Escherichia coli integration host factor stabilizes bacteriophage Mu repressor interactions with operator DNA in vitro. *Molecular Microbiology*, **1992**, 6, 1707-14	4.1	30
87	The helix-turn-helix motif of bacterial insertion sequence IS911 transposase is required for DNA binding. *Nucleic Acids Research*, **2004**, 32, 1335-44	20.1	29
86	The processing of repetitive extragenic palindromes: the structure of a repetitive extragenic palindrome bound to its associated nuclease. *Nucleic Acids Research*, **2012**, 40, 9964-79	20.1	27
85	Convergent mechanisms of genome evolution of large and giant DNA viruses. *Research in Microbiology*, **2008**, 159, 325-31	4	27
84	Analysis of the N-terminal DNA binding domain of the IS30 transposase. *Molecular Microbiology*, **2004**, 54, 478-88	4.1	27
83	DNA sequence at the end of IS1 required for transposition. *Nature*, **1985**, 317, 458-60	50.4	27
82	Copy-out-Paste-in Transposition of IS911: A Major Transposition Pathway. *Microbiology Spectrum*, **2015**, 3,	8.9	26
81	Resetting the site: redirecting integration of an insertion sequence in a predictable way. *Molecular Cell*, **2009**, 34, 612-9	17.6	26
80	IS911-mediated intramolecular transposition is naturally temperature sensitive. *Molecular Microbiology*, **1997**, 25, 531-40	4.1	26
79	ISDra2 transposition in Deinococcus radiodurans is downregulated by TnpB. *Molecular Microbiology*, **2013**, 88, 443-55	4.1	25
78	IS911 transposon circles give rise to linear forms that can undergo integration in vitro. *Molecular Microbiology*, **1999**, 32, 617-27	4.1	24
77	Mutual stabilisation of bacteriophage Mu repressor and histone-like proteins in a nucleoprotein structure. *Journal of Molecular Biology*, **1995**, 249, 332-41	6.5	22
76	Artificial transposable elements in the study of the ends of IS1. *Gene*, **1987**, 61, 91-101	3.8	22
75	The initiation of chromosome replication in a dnaAts46 and a dnaA+ strain at various temperatures. *Molecular Genetics and Genomics*, **1981**, 182, 364-6		22
74	IS200/IS605 family single-strand transposition: mechanism of IS608 strand transfer. *Nucleic Acids Research*, **2013**, 41, 3302-13	20.1	21

73	The role of tandem IS dimers in IS911 transposition. *Molecular Microbiology*, **2000**, 35, 1312-25	4.1	21
72	A target specificity switch in IS911 transposition: the role of the OrfA protein. *EMBO Journal*, **2002**, 21, 4172-82	13	21
71	Cotranslational control of DNA transposition: a window of opportunity. *Molecular Cell*, **2011**, 44, 989-96	17.6	20
70	Interactions between the repressor and the early operator region of bacteriophage Mu. *Journal of Biological Chemistry*, **1996**, 271, 9739-45	5.4	20
69	Isolation of an IS1 flanked kanamycin resistance transposon from R1drd19. *Molecular Genetics and Genomics*, **1980**, 180, 123-7		20
68	Structure and stability of transposon 5-mediated cointegrates. *Journal of Molecular Biology*, **1982**, 159, 557-80	6.5	20
67	Reconstitution of a functional IS608 single-strand transpososome: role of non-canonical base pairing. *Nucleic Acids Research*, **2011**, 39, 8503-12	20.1	18
66	Transposable elements for efficient manipulation of a wide range of gram-negative bacteria: promoter probes and vectors for foreign genes. *Gene*, **1989**, 85, 83-9	3.8	18
65	Functional domains of the IS1 transposase: analysis in vivo and in vitro. *Molecular Microbiology*, **2004**, 53, 1529-43	4.1	17
64	Host processing of branched DNA intermediates is involved in targeted transposition of IS911. *Molecular Microbiology*, **2004**, 51, 385-93	4.1	17
63	Sub-terminal sequences modulating IS30 transposition in vivo and in vitro. *Journal of Molecular Biology*, **2008**, 375, 337-52	6.5	16
62	Transposition and target specificity of the typical IS30 family element IS1655 from Neisseria meningitidis. *Molecular Microbiology*, **2007**, 63, 1731-47	4.1	16
61	IS911 partial transposition products and their processing by the Escherichia coli RecG helicase. *Molecular Microbiology*, **2004**, 53, 1021-33	4.1	16
60	Chromosome replication in an Hfr strain of Escherichia coli. *Journal of Molecular Biology*, **1976**, 104, 517-33	6.5	16
59	Truncated forms of IS911 transposase downregulate transposition. *Molecular Microbiology*, **2006**, 62, 1102-16	4.1	15
58	Overinitiation of chromosome and plasmid replication in a dna Acos mutant of Escherichia coli K12. Evidence for dnaA-dnaB interactions. *Journal of Molecular Biology*, **1984**, 179, 171-83	6.5	14
57	Route 66: investigations into the organisation and distribution of the IS66 family of prokaryotic insertion sequences. *Research in Microbiology*, **2010**, 161, 136-43	4	13
56	Production of extrachromosomal r-determinant circles from integrated R100.1: involvement of the E. coli recombination system. *Molecular Genetics and Genomics*, **1980**, 179, 565-71		13

55	Toxin-Antitoxin Gene Pairs Found in Tn Family Transposons Appear To Be an Integral Part of the Transposition Module. *MBio*, **2020**, 11,	7.8	12
54	Phage Mu transposase: deletion of the carboxy-terminal end does not abolish DNA-binding activity. *Molecular Genetics and Genomics*, **1987**, 210, 77-85		12
53	Mapping and regulation of the pifC promoter of the F plasmid. *Biochimica Et Biophysica Acta Gene Regulatory Mechanisms*, **1988**, 950, 75-80		12
52	Cloning and expression of the phage Mu A gene. *Gene*, **1984**, 28, 65-72	3.8	12
51	Known knowns, known unknowns and unknown unknowns in prokaryotic transposition. *Current Opinion in Microbiology*, **2017**, 38, 171-180	7.9	11
50	A model for the molecular organisation of the IS911 transpososome. *Mobile DNA*, **2010**, 1, 16	4.4	11
49	IS1-mediated tandem duplication of plasmid pBR322. Dependence on recA and on DNA polymerase I. *Journal of Molecular Biology*, **1983**, 165, 183-90	6.5	11
48	The IS6 family, a clinically important group of insertion sequences including IS26. *Mobile DNA*, **2021**, 12, 11	4.4	11
47	A Practical Guide for Comparative Genomics of Mobile Genetic Elements in Prokaryotic Genomes. *Methods in Molecular Biology*, **2018**, 1704, 213-242	1.4	10
46	Oligomeric structure of the repressor of the bacteriophage Mu early operon. *FEBS Journal*, **1998**, 252, 408-15		9
45	Bias between the left and right inverted repeats during IS911 targeted insertion. *Journal of Bacteriology*, **2008**, 190, 6111-8	3.5	9
44	Unlocking Tn3-family transposase activity in vitro unveils an asymetric pathway for transposome assembly. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E669-E678	11.5	8
43	Everyman's Guide to Bacterial Insertion Sequences **2015**, 555-590		8
42	The Tn3-family of Replicative Transposons **2015**, 693-726		8
41	Control of IS911 target selection: how OrfA may ensure IS dispersion. *Molecular Microbiology*, **2007**, 63, 1701-9	4.1	8
40	5 Study of Plasmid Replication in vivo. *Methods in Microbiology*, **1984**, 17, 97-122	2.8	8
39	The contruction and replication properties of hybrid plasmids composed of the r-determinant of R100.1 and the plasmids pCRI and pSC201. *Molecular Genetics and Genomics*, **1979**, 168, 337-40		8
38	Targeting IS608 transposon integration to highly specific sequences by structure-based transposon engineering. *Nucleic Acids Research*, **2018**, 46, 4152-4163	20.1	7

37	Mechanisms of DNA Transposition **2015**, 529-553		6
36	Helitrons, the Eukaryotic Rolling-circle Transposable Elements891-924		6
35	TnCentral: a Prokaryotic Transposable Element Database and Web Portal for Transposon Analysis. *MBio*, **2021**, 12, e0206021	7.8	6
34	Studies on the transposition of IS1. *Basic Life Sciences*, **1985**, 30, 53-77		6
33	A simple and efficient system for the construction of phoA gene fusions in gram-negative bacteria. *Gene*, **1992**, 114, 103-7	3.8	5
32	A mutant of the plasmid R100.1 capable of producing autonomous circular forms of its resistance determinant. *Plasmid*, **1982**, 7, 251-62	3.3	5
31	Transposable Phage Mu669-691		5
30	P Transposable Elements in Drosophila and other Eukaryotic Organisms **2015**, 727-752		4
29	Tn7 **2015**, 647-667		4
28	The IS 200/IS605 Family and Peel and Paste Single-strand Transposition Mechanism **2015**, 609-630		4
27	Clamping down on transposon targeting. *Cell*, **2009**, 138, 621-3	56.2	4
26	Preferential binding of bacteriophage Mu repressor to supercoiled Mu DNA. *Plasmid*, **1985**, 13, 173-81	3.3	4
25	Transposons and pathogenicity in : acquisition of murein lytic transglycosylases by Tn enhances subsp. 306 virulence and fitness. *PeerJ*, **2018**, 6, e6111	3.1	4
24	Single strand transposition at the host replication fork. *Nucleic Acids Research*, **2016**, 44, 7866-83	20.1	4
23	Single-strand DNA processing: phylogenomics and sequence diversity of a superfamily of potential prokaryotic HuH endonucleases. *BMC Genomics*, **2018**, 19, 475	4.5	2
22	Microbiology: what now?. *Research in Microbiology*, **2008**, 159, 51-8	4	2
21	Nonhomologous Recombination36-66		2
20	A Moveable Feast: An Introduction to Mobile DNA1-39		2

19	Mariner and the ITm Superfamily of Transposons753-772		2
18	Mutator and MULE Transposons801-826		2
17	Transposons: Prokaryotic **2016**, 1-9		1
16	Sleeping Beauty Transposition **2015**, 851-872		1
15	Unpacking the Baggage: Origin and Evolution of Giant Viruses **2012**, 203-216		1
14	Characterization of the cts4 repressor mutation in transposable bacteriophage Mu. *Research in Microbiology*, **2002**, 153, 511-8	4	1
13	Genome diversity: sources and forces. *Current Opinion in Microbiology*, **2001**, 4, 547-549	7.9	1
12	Serine Resolvases237-252		1
11	Copy-outPaste-in Transposition of IS911: A Major Transposition Pathway591-607		1
10	hATTransposable Elements773-800		1
9	Prokaryotic DNA Transposons: Classes and Mechanism1-16		1
8	piggyBac Transposony **2015**, 873-890		0
7	Retroviral Integrase Structure and DNA Recombination Mechanism **2015**, 1011-1033		
6	International Congress on Transposable Elements (ICTE) 2012 in Saint Malo and the sea of TE stories. *Mobile DNA*, **2012**, 3, 17	4.4	
5	Microbial genomics. *Research in Microbiology*, **2007**, 158, 721-3	4	
4	Response from Varani et al. to "Comment on 'the IS6 family, a clinically important group of insertion sequences including IS26' by Ruth M. Hall".. *Mobile DNA*, **2022**, 13, 2	4.4	
3	DNA Transposition1		
2	Detection and Characterization of Transposons in Bacteria. *Methods in Molecular Biology*, **2020**, 2075, 81-90	1.4	

List of Publications

1 DNA repair | Nonhomologous Recombination: Bacterial Transposons **2021**, 303-312