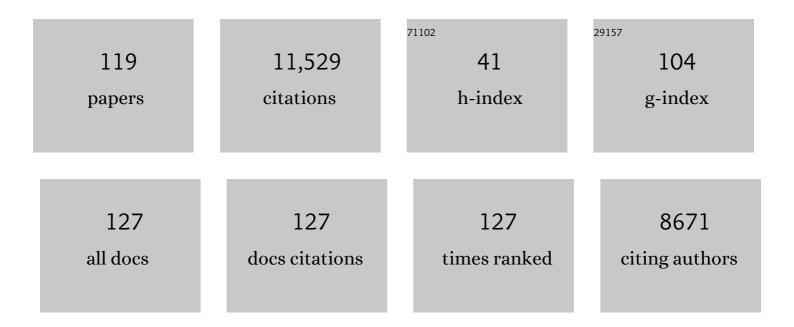
## **Richard J Roberts**

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Hhal methyltransferase flips its target base out of the DNA helix. Cell, 1994, 76, 357-369.	28.9	988
2	REBASE—a database for DNA restriction and modification: enzymes, genes and genomes. Nucleic Acids Research, 2015, 43, D298-D299.	14.5	748
3	REBASE—a database for DNA restriction and modification: enzymes, genes and genomes. Nucleic Acids Research, 2010, 38, D234-D236.	14.5	736
4	A nomenclature for restriction enzymes, DNA methyltransferases, homing endonucleases and their genes. Nucleic Acids Research, 2003, 31, 1805-1812.	14.5	634
5	Predictive motifs derived from cytosine methyltransferases. Nucleic Acids Research, 1989, 17, 2421-2435.	14.5	513
6	NEBcutter: a program to cleave DNA with restriction enzymes. Nucleic Acids Research, 2003, 31, 3688-3691.	14.5	510
7	The advantages of SMRT sequencing. Genome Biology, 2013, 14, .	8.8	487
8	The DNA (cytosine-5) methyltransferases. Nucleic Acids Research, 1994, 22, 1-10.	14.5	444
9	Restriction Endonuclease. CRC Critical Reviews in Biochemistry, 1976, 4, 123-164.	2.0	443
10	Crystal structure of the Hhal DNA methyltransferase complexed with S-adenosyl-l-methionine. Cell, 1993, 74, 299-307.	28.9	391
11	Genome-wide mapping of methylated adenine residues in pathogenic Escherichia coli using single-molecule real-time sequencing. Nature Biotechnology, 2012, 30, 1232-1239.	17.5	365
12	The Epigenomic Landscape of Prokaryotes. PLoS Genetics, 2016, 12, e1005854.	3.5	348
13	BASE FLIPPING. Annual Review of Biochemistry, 1998, 67, 181-198.	11.1	327
14	The advantages of SMRT sequencing. Genome Biology, 2013, 14, 405.	8.8	324
15	Characterization of DNA methyltransferase specificities using single-molecule, real-time DNA sequencing. Nucleic Acids Research, 2012, 40, e29-e29.	14.5	306
16	The methylomes of six bacteria. Nucleic Acids Research, 2012, 40, 11450-11462.	14.5	269
17	REBASEenzymes and genes for DNA restriction and modification. Nucleic Acids Research, 2007, 35, D269-D270.	14.5	229
18	REBASE: restriction enzymes and methyltransferases. Nucleic Acids Research, 2003, 31, 418-420.	14.5	205

#	Article	IF	CITATIONS
19	On base flipping. Cell, 1995, 82, 9-12.	28.9	170
20	MHhal binds tightly to substrates containing mismatches at the target base. Nucleic Acids Research, 1995, 23, 1388-1395.	14.5	162
21	Enzymatic C5-Cytosine Methylation of DNA: Mechanistic Implications of New Crystal Structures forHhal Methyltransferase-DNA-AdoHcy Complexes. Journal of Molecular Biology, 1996, 261, 634-645.	4.2	162
22	A specific endonuclease from Haemophilus haemolyticus. Journal of Molecular Biology, 1976, 103, 199-208.	4.2	161
23	How restriction enzymes became the workhorses of molecular biology. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 5905-5908.	7.1	153
24	REBASErestriction enzymes and DNA methyltransferases. Nucleic Acids Research, 2004, 33, D230-D232.	14.5	150
25	The complex methylome of the human gastric pathogen <i>Helicobacter pylori</i> . Nucleic Acids Research, 2014, 42, 2415-2432.	14.5	132
26	REBASErestriction enzymes and methylases. Nucleic Acids Research, 2001, 29, 268-269.	14.5	121
27	Identifying Protein Function—A Call for Community Action. PLoS Biology, 2004, 2, e42.	5.6	116
28	The MspJI family of modification-dependent restriction endonucleases for epigenetic studies. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11040-11045.	7.1	115
29	Structures of Hhal methyltransferase complexed with substrates containing mismatches at the target base. Nature Structural Biology, 1998, 5, 872-877.	9.7	102
30	RimO, a MiaB-like enzyme, methylthiolates the universally conserved Asp88 residue of ribosomal protein S12 in <i>Escherichia coli</i> . Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1826-1831.	7.1	97
31	A Structural Basis for the Preferential Binding of Hemimethylated DNA byHhal DNA Methyltransferase. Journal of Molecular Biology, 1996, 263, 597-606.	4.2	90
32	A unique family of Mrr-like modification-dependent restriction endonucleases. Nucleic Acids Research, 2010, 38, 5527-5534.	14.5	77
33	A specific endonuclease from Bacillus caldolyticus. Nucleic Acids Research, 1978, 5, 3457-3468.	14.5	72
34	Structure of a binary complex of Hha I methyltransferase with S -adnosyl- l -methionine formed in the presence of a short non-specific DNA oligonucleotide 1 1Edited by J. Karn. Journal of Molecular Biology, 1999, 287, 201-209.	4.2	68
35	Comparative characterization of the PvuRts1I family of restriction enzymes and their application in mapping genomic 5-hydroxymethylcytosine. Nucleic Acids Research, 2011, 39, 9294-9305.	14.5	67
36	Specificity of the ModA11, ModA12 and ModD1 epigenetic regulator N6-adenine DNA methyltransferases of Neisseria meningitidis. Nucleic Acids Research, 2015, 43, 4150-4162.	14.5	58

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37	The complete methylome of Helicobacter pylori UM032. BMC Genomics, 2015, 16, 424.	2.8	57
38	The COMBREX Project: Design, Methodology, and Initial Results. PLoS Biology, 2013, 11, e1001638.	5.6	54
39	Genome-Wide Methylation Patterns in Salmonella enterica Subsp. enterica Serovars. PLoS ONE, 2015, 10, e0123639.	2.5	51
40	COMBREX: a project to accelerate the functional annotation of prokaryotic genomes. Nucleic Acids Research, 2011, 39, D11-D14.	14.5	47
41	COMBREX-DB: an experiment centered database of protein function: knowledge, predictions and knowledge gaps. Nucleic Acids Research, 2016, 44, D330-D335.	14.5	47
42	DNA nicking by HinP1I endonuclease: bending, base flipping and minor groove expansion. Nucleic Acids Research, 2006, 34, 939-948.	14.5	44
43	Recognition sequence of restriction endonuclease Kpnl from Klebsiella pneumoniae. Nucleic Acids Research, 1978, 5, 4055-4064.	14.5	42
44	An Asymmetric Complex of Restriction Endonuclease Mspl on Its Palindromic DNA Recognition Site. Structure, 2004, 12, 1741-1747.	3.3	41
45	The non-specific adenine DNA methyltransferase M.EcoGII. Nucleic Acids Research, 2018, 46, 840-848.	14.5	41
46	Beyond Restriction Modification: Epigenomic Roles of DNA Methylation in Prokaryotes. Annual Review of Microbiology, 2021, 75, 129-149.	7.3	37
47	Structure of HinP1I endonuclease reveals a striking similarity to the monomeric restriction enzyme Mspl. Nucleic Acids Research, 2005, 33, 1892-1901.	14.5	31
48	Complete Genome Sequence of ER2796, a DNA Methyltransferase-Deficient Strain of Escherichia coli K-12. PLoS ONE, 2015, 10, e0127446.	2.5	31
49	Identification of genes with fast-evolving regions in microbial genomes. Nucleic Acids Research, 2004, 32, 6347-6357.	14.5	30
50	Complete Genome Sequence of Enteroinvasive Escherichia coli O96:H19 Associated with a Severe Foodborne Outbreak. Genome Announcements, 2015, 3, .	0.8	29
51	Sequence-specific cleavage of RNA by Type II restriction enzymes. Nucleic Acids Research, 2010, 38, 8257-8268.	14.5	28
52	DNA target recognition domains in the Type I restriction and modification systems of Staphylococcus aureus. Nucleic Acids Research, 2017, 45, 3395-3406.	14.5	27
53	Identification of Restriction-Modification Systems of Bifidobacterium animalis subsp. lactis CNCM I-2494 by SMRT Sequencing and Associated Methylome Analysis. PLoS ONE, 2014, 9, e94875.	2.5	25
54	Selection of restriction endonucleases using artificial cells. Nucleic Acids Research, 2007, 35, e83.	14.5	24

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55	Novel m4C modification in type I restriction-modification systems. Nucleic Acids Research, 2016, 44, gkw743.	14.5	23
56	Structure of Type IIL Restriction-Modification Enzyme Mmel in Complex with DNA Has Implications for Engineering New Specificities. PLoS Biology, 2016, 14, e1002442.	5.6	23
57	A genetic dissection of the LlaJI restriction cassette reveals insights on a novel bacteriophage resistance system. BMC Microbiology, 2006, 6, 40.	3.3	20
58	Prevalence of phase variable epigenetic invertons among host-associated bacteria. Nucleic Acids Research, 2020, 48, 11468-11485.	14.5	20
59	Two crystal forms of the restriction enzyme MspI-DNA complex show the same novel structure. Protein Science, 2005, 14, 2590-2600.	7.6	18
60	Restriction-modification mediated barriers to exogenous DNA uptake and incorporation employed by Prevotella intermedia. PLoS ONE, 2017, 12, e0185234.	2.5	18
61	Production and Ñharacterization of the exopolysaccharide from strain Paenibacillus polymyxa 2020. PLoS ONE, 2021, 16, e0253482.	2.5	17
62	De novo assembly of genomes from long sequence reads reveals uncharted territories of Propionibacterium freudenreichii. BMC Genomics, 2017, 18, 790.	2.8	16
63	Using shotgun sequence data to find active restriction enzyme genes. Nucleic Acids Research, 2009, 37, e1-e1.	14.5	15
64	Complete Genome and Methylome Sequences of Salmonella enterica subsp. enterica Serovar Panama (ATCC 7378) and Salmonella enterica subsp. enterica Serovar Sloterdijk (ATCC 15791). Genome Announcements, 2016, 4, .	0.8	15
65	Complete Genome and Methylome Analysis of Psychrotrophic Bacterial Isolates from Lake Untersee in Antarctica. Genome Announcements, 2017, 5, .	0.8	14
66	BspRI restriction endonuclease: cloning, expression in Escherichia coli and sequential cleavage mechanism. Nucleic Acids Research, 2010, 38, 7155-7166.	14.5	11
67	COMBREX: COMputational BRidge to EXperiments. Biochemical Society Transactions, 2011, 39, 581-583.	3.4	11
68	Complete Genome Sequence of the Freshwater Colorless Sulfur Bacterium <i>Beggiatoa leptomitiformis</i> Neotype Strain D-402 <sup>T</sup> . Genome Announcements, 2015, 3, .	0.8	11
69	Genomic Stability and Genetic Defense Systems in <i>Dolosigranulum pigrum</i> , a Candidate Beneficial Bacterium from the Human Microbiome. MSystems, 2021, 6, e0042521.	3.8	11
70	Metagenomic methylation patterns resolve bacterial genomes of unusual size and structural complexity. ISME Journal, 2022, 16, 1921-1931.	9.8	11
71	Structure of the Q237W mutant of Hhal DNA methyltransferase: an insight into protein-protein interactions. Biological Chemistry, 2004, 385, 373-379.	2.5	10
72	Red-Brown Pigmentation of Acidipropionibacterium jensenii Is Tied to Haemolytic Activity and cyl-Like Gene Cluster. Microorganisms, 2019, 7, 512.	3.6	10

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73	Analysis of a phase-variable restriction modification system of the human gut symbiont Bacteroides fragilis. Nucleic Acids Research, 2020, 48, 11040-11053.	14.5	10
74	Ten Simple Rules to Win a Nobel Prize. PLoS Computational Biology, 2015, 11, e1004084.	3.2	9
75	Novel Methyltransferase Recognition Motif Identified in Chania multitudinisentens RB-25T gen. nov., sp. nov Frontiers in Microbiology, 2016, 7, 1362.	3.5	9
76	Rapid identification of methylase specificity (RIMS-seq) jointly identifies methylated motifs and generates shotgun sequencing of bacterial genomes. Nucleic Acids Research, 2021, 49, e113-e113.	14.5	9
77	Acidipropionibacterium virtanenii sp. nov., isolated from malted barley. International Journal of Systematic and Evolutionary Microbiology, 2018, 68, 3175-3183.	1.7	9
78	The BsaHI restriction-modification system: Cloning, sequencing and analysis of conserved motifs. BMC Molecular Biology, 2008, 9, 48.	3.0	8
79	Complete Genome Sequence of a Strain of Azospirillum thiophilum Isolated from a Sulfide Spring. Genome Announcements, 2016, 4, .	0.8	8
80	Expression and purification of the modification-dependent restriction enzyme Bisl and its homologous enzymes. Scientific Reports, 2016, 6, 28579.	3.3	8
81	Complete Genome Sequence and Methylome Analysis of <i>Aeromonas hydrophila</i> Strain YL17, Isolated from a Compost Pile. Genome Announcements, 2016, 4, .	0.8	8
82	Methylomes of Two Extremely Halophilic Archaea Species, Haloarcula marismortui and Haloferax mediterranei. Microbiology Resource Announcements, 2019, 8, .	0.6	8
83	Genome-wide identification of 5-methylcytosine sites in bacterial genomes by high-throughput sequencing of MspJI restriction fragments. PLoS ONE, 2021, 16, e0247541.	2.5	8
84	We need to keep a reproducible trace of facts, predictions, and hypotheses from gene to function in the era of big data. PLoS Biology, 2020, 18, e3000999.	5.6	8
85	The early days of bioinformatics publishing. Bioinformatics, 2000, 16, 2-4.	4.1	7
86	Genome Sequences and Methylation Patterns of Natrinema versiforme BOL5-4 and Natrinema pallidum BOL6-1, Two Extremely Halophilic Archaea from a Bolivian Salt Mine. Microbiology Resource Announcements, 2019, 8, .	0.6	7
87	Genome Sequence of Salarchaeum sp. Strain JOR-1, an Extremely Halophilic Archaeon from the Dead Sea. Microbiology Resource Announcements, 2020, 9, .	0.6	7
88	Structural and functional diversity among Type III restriction-modification systems that confer host DNA protection via methylation of the N4 atom of cytosine. PLoS ONE, 2021, 16, e0253267.	2.5	6
89	Comparative Methylome Analysis of the Occasional Ruminant Respiratory Pathogen Bibersteinia trehalosi. PLoS ONE, 2016, 11, e0161499.	2.5	6
90	Complete Genome Sequence and Methylome Analysis of Bacillus Strain X1. Genome Announcements, 2015, 3, .	0.8	5

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91	Complete Genome Sequence Analysis of Bacillus subtilis T30. Genome Announcements, 2015, 3, .	0.8	5
92	Complete Genome and Methylome Sequences of Two Salmonella enterica spp. Genome Announcements, 2016, 4, .	0.8	5
93	Structure of Hhal endonuclease with cognate DNA at an atomic resolution of 1.0 Ã Nucleic Acids Research, 2020, 48, 1466-1478.	14.5	5
94	Complete Genome Sequences and Methylome Analyses of Cutibacterium acnes subsp. <i>acnes</i> Strains DSM 16379 and DSM 1897 <sup>T</sup> . Microbiology Resource Announcements, 2020, 9, .	0.6	5
95	Complete Genome Sequence and Methylome Analysis of Acinetobacter calcoaceticus 65. Genome Announcements, 2017, 5, .	0.8	4
96	Whole-Genome Sequence and Methylome Analysis of the Freshwater Colorless Sulfur Bacterium <i>Thioflexothrix psekupsii</i> D3. Genome Announcements, 2017, 5, .	0.8	4
97	Genome Sequence and Methylation Pattern of Haloterrigena salifodinae BOL5-1, an Extremely Halophilic Archaeon from a Bolivian Salt Mine. Microbiology Resource Announcements, 2021, 10, .	0.6	4
98	Identification of GATC―and CCCGâ€recognizing Type II REases and their putative specificityâ€determining positions using Scan2S—A novel motif scan algorithm with optional secondary structure constraints. Proteins: Structure, Function and Bioinformatics, 2008, 71, 631-640.	2.6	3
99	Complete Genome Sequence of <i>Curtobacterium</i> sp. Strain MR_MD2014, Isolated from Topsoil in Woods Hole, Massachusetts. Genome Announcements, 2015, 3, .	0.8	3
100	Complete Genome Sequence of Brevibacterium linens SMQ-1335. Genome Announcements, 2016, 4, .	0.8	3
101	The third restriction–modification system from Thermus aquaticus YT-1: solving the riddle of two Taqll specificities. Nucleic Acids Research, 2017, 45, 9005-9018.	14.5	3
102	Complete Genome Sequence and Methylome Analysis of Deinococcus wulumuqiensis 479. Microbiology Resource Announcements, 2019, 8, .	0.6	3
103	Methylome Characterization of Burkholderia pseudomallei Strain 982 at Single-Base Resolution. Microbiology Resource Announcements, 2019, 8, .	0.6	3
104	Complete Genome and Methylome Sequences of Salmonella enterica subsp. <i>enterica</i> Serovars Typhimurium, Saintpaul, and Stanleyville from the SARA/SARB Collection. Genome Announcements, 2017, 5, .	0.8	2
105	Complete Genome Sequence of the Freshwater Bacterium Beggiatoa leptomitoformis Strain D-401. Genome Announcements, 2018, 6, .	0.8	2
106	Complete Genome Sequence and Methylome Analysis of Thermoactinomyces vulgaris 2H. Microbiology Resource Announcements, 2019, 8, .	0.6	2
107	Complete genome and methylome analysis of Neisseria meningitidis associated with increased serogroup Y disease. Scientific Reports, 2020, 10, 3644.	3.3	2
108	Complete Genome Sequence of an Extremely Halophilic Archaeon from Great Salt Lake, Halobacterium sp. GSL-19. Microbiology Resource Announcements, 2021, 10, e0052021.	0.6	2

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109	Complete Genome and Methylome Analysis of the Box-Shaped Halophilic Archaeon Haloarcula sinaiiensis ATCC 33800. Microbiology Resource Announcements, 2021, 10, e0061921.	0.6	2
110	Complete Genome Sequences and Methylome Analysis of Two Environmental <i>Spirochaetes</i> . Microbiology Resource Announcements, 2020, 9, .	0.6	2
111	Genome Sequence of Halobacterium sp. Strain BOL4-2, Isolated and Cultured from Salar de Uyuni, Bolivia. Microbiology Resource Announcements, 2021, 10, e0104521.	0.6	2
112	Complete Genome Sequence of <i>Streptomyces</i> sp. Strain CCM_MD2014, Isolated from Topsoil in Woods Hole, Massachusetts. Genome Announcements, 2015, 3, .	0.8	1
113	Complete Genome Sequences of Two <i>Rhodobacter</i> Strains. Microbiology Resource Announcements, 2018, 7, .	0.6	1
114	Complete Genome Sequence and Methylome Analysis of Bacillus caldolyticus NEB414. Genome Announcements, 2018, 6, .	0.8	1
115	Biochemical and molecular characterization of a restriction endonuclease Tvu2HI from Thermoactinomyces vulgaris 2H and study of its R-M system. International Journal of Biological Macromolecules, 2020, 164, 3105-3113.	7.5	1
116	Complete Genome Sequence and Methylome Analysis of Sphaerotilus natans subsp. <i>sulfidivorans</i> D-507. Microbiology Resource Announcements, 2019, 8, .	0.6	1
117	Genome Sequence of the Early 20th-Century Extreme Halophile <i>Halobacterium</i> sp. Strain NRC-34001. Microbiology Resource Announcements, 2022, 11, e0118121.	0.6	1
118	Genome-wide methylome analysis of two strains belonging to the hypervirulent Neisseria meningitidis serogroup W ST-11 clonal complex. Scientific Reports, 2021, 11, 6239.	3.3	0
119	Characterization of Bisl Homologs. Frontiers in Microbiology, 2021, 12, 689929.	3.5	0