

# Stephen D Bell

## List of Publications by Year in descending order

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117  
papers

7,485  
citations

38742

50  
h-index

60623

81  
g-index

123  
all docs

123  
docs citations

123  
times ranked

4775  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | A Role for the ESCRT System in Cell Division in Archaea. <i>Science</i> , 2008, 322, 1710-1713.  | 12.6 | 339       |
| 2  | The Interaction of Alba, a Conserved Archaeal Chromatin Protein, with Sir2 and Its Regulation by Acetylation. <i>Science</i> , 2002, 296, 148-151.                                 | 12.6 | 271       |
| 3  | DNA Replication in the Archaea. <i>Microbiology and Molecular Biology Reviews</i> , 2006, 70, 876-887.   | 6.6  | 252       |
| 4  | Identification of Two Origins of Replication in the Single Chromosome of the Archaeon <i>Sulfolobus solfataricus</i> . <i>Cell</i> , 2004, 116, 25-38.                             | 28.9 | 243       |
| 5  | A Heterotrimeric PCNA in the Hyperthermophilic Archaeon <i>Sulfolobus solfataricus</i> . <i>Molecular Cell</i> , 2003, 11, 275-282.  | 9.7  | 215       |
| 6  | Evolution of diverse cell division and vesicle formation systems in Archaea. <i>Nature Reviews Microbiology</i> , 2010, 8, 731-741.  | 28.6 | 212       |
| 7  | The Extracellular Matrix Protein TGFBI Induces Microtubule Stabilization and Sensitizes Ovarian Cancers to Paclitaxel. <i>Cancer Cell</i> , 2007, 12, 514-527.                     | 16.8 | 202       |
| 8  | Mechanism and regulation of transcription in archaea. <i>Current Opinion in Microbiology</i> , 2001, 4, 208-213.   | 5.1  | 191       |
| 9  | Transcription and translation in Archaea: a mosaic of eukaryal and bacterial features. <i>Trends in Microbiology</i> , 1998, 6, 222-228.   | 7.7  | 182       |
| 10 | Organization of the archaeal MCM complex on DNA and implications for the helicase mechanism. <i>Nature Structural and Molecular Biology</i> , 2005, 12, 756-762.                   | 8.2  | 160       |
| 11 | Orientation of the transcription preinitiation complex in Archaea. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999, 96, 13662-13667. | 7.1  | 149       |
| 12 | Structure of Alba: an archaeal chromatin protein modulated by acetylation. <i>EMBO Journal</i> , 2002, 21, 4654-4662.  | 7.8  | 146       |
| 13 | Replication Origin Recognition and Deformation by a Heterodimeric Archaeal Orc1 Complex. <i>Science</i> , 2007, 317, 1210-1213.  | 12.6 | 131       |
| 14 | Factor requirements for transcription in the Archaeon <i>Sulfolobus shibatae</i> . <i>EMBO Journal</i> , 1997, 16, 2927-2936.  | 7.8  | 129       |
| 15 | Response of the Hyperthermophilic Archaeon <i>Sulfolobus solfataricus</i> to UV Damage. <i>Journal of Bacteriology</i> , 2007, 189, 8708-8718.                                     | 2.2  | 128       |
| 16 | Holding it together: chromatin in the Archaea. <i>Trends in Genetics</i> , 2002, 18, 621-626.  | 6.7  | 124       |
| 17 | Charting a course through RNA polymerase. , 2000, 7, 703-705.  |      | 123       |
| 18 | GIN5, a central nexus in the archaeal DNA replication fork. <i>EMBO Reports</i> , 2006, 7, 539-545.  | 4.5  | 121       |

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|----|--|-----|-----------|
| 19 | Evolution of Complex RNA Polymerases: The Complete Archaeal RNA Polymerase Structure. <i>PLoS Biology</i> , 2009, 7, e1000102.   | 5.6 | 109       |
| 20 | Transcriptional Regulation of an Archaeal Operon In Vivo and In Vitro. <i>Molecular Cell</i> , 1999, 4, 971-982.   | 9.7 | 105       |
| 21 | The replication fork trap and termination of chromosome replication. <i>Molecular Microbiology</i> , 2008, 70, 1323-1333.  | 2.5 | 104       |
| 22 | Molecular and Structural Basis of ESCRT-III Recruitment to Membranes during Archaeal Cell Division. <i>Molecular Cell</i> , 2011, 41, 186-196.   | 9.7 | 102       |
| 23 | Extrachromosomal element capture and the evolution of multiple replication origins in archaeal chromosomes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 5806-5811. | 7.1 | 101       |
| 24 | ATPase Site Architecture and Helicase Mechanism of an Archaeal MCM. <i>Molecular Cell</i> , 2007, 28, 304-314.   | 9.7 | 100       |
| 25 | The <i>Sulfolobus solfataricus</i> Lrp-like Protein LysM Regulates Lysine Biosynthesis in Response to Lysine Availability. <i>Journal of Biological Chemistry</i> , 2002, 277, 29537-29549.                                | 3.4 | 98        |
| 26 | The Minichromosome Maintenance Replicative Helicase. <i>Cold Spring Harbor Perspectives in Biology</i> , 2013, 5, a012807-a012807.   | 5.5 | 94        |
| 27 | Genome-wide Analysis Reveals Extensive Functional Interaction between DNA Replication Initiation and Transcription in the Genome of <i>Trypanosoma brucei</i> . <i>Cell Reports</i> , 2012, 2, 185-197.                    | 6.4 | 93        |
| 28 | Electron cryotomography of ESCRT assemblies and dividing <i>Sulfolobus</i> cells suggests that spiraling filaments are involved in membrane scission. <i>Molecular Biology of the Cell</i> , 2013, 24, 2319-2327.          | 2.1 | 88        |
| 29 | The archaeal TFIIIE $\pm$ homologue facilitates transcription initiation by enhancing TATA $\hat{=}$ box recognition. <i>EMBO Reports</i> , 2001, 2, 133-138.  | 4.5 | 86        |
| 30 | Origins of DNA replication in the three domains of life. <i>FEBS Journal</i> , 2005, 272, 3757-3766.   | 4.7 | 85        |
| 31 | Structural Basis for the NAD-dependent Deacetylase Mechanism of Sir2. <i>Journal of Biological Chemistry</i> , 2002, 277, 34489-34498.   | 3.4 | 84        |
| 32 | Mechanism of Autoregulation by an Archaeal Transcriptional Repressor. <i>Journal of Biological Chemistry</i> , 2000, 275, 31624-31629.   | 3.4 | 83        |
| 33 | MCM Forked Substrate Specificity Involves Dynamic Interaction with the 5 $\hat{=}$ 2-Tail. <i>Journal of Biological Chemistry</i> , 2007, 282, 34229-34234.  | 3.4 | 83        |
| 34 | Sir2 and the Acetyltransferase, Pat, Regulate the Archaeal Chromatin Protein, Alba. <i>Journal of Biological Chemistry</i> , 2005, 280, 21122-21128.   | 3.4 | 82        |
| 35 | Chromosome replication dynamics in the archaeon <i>Sulfolobus acidocaldarius</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 16737-16742.                        | 7.1 | 80        |
| 36 | An archaeal XPF repair endonuclease dependent on a heterotrimeric PCNA. <i>Molecular Microbiology</i> , 2003, 48, 361-371.   | 2.5 | 78        |

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|----|---|------|-----------|
| 37 | An archaeal primase functions as a nanoscale caliper to define primer length. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6697-6702.  | 7.1  | 77        |
| 38 | Archaeal MCM has separable processivity, substrate choice and helicase domains. Nucleic Acids Research, 2007, 35, 988-998.  | 14.5 | 75        |
| 39 | Structure of the heterodimeric core primase. Nature Structural and Molecular Biology, 2005, 12, 1137-1144.  | 8.2  | 73        |
| 40 | Temperature, template topology, and factor requirements of archaeal transcription. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 15218-15222.  | 7.1  | 72        |
| 41 | Termination Structures in the Escherichia coli Chromosome Replication Fork Trap. Journal of Molecular Biology, 2009, 387, 532-539.  | 4.2  | 71        |
| 42 | The Heterodimeric Primase of the Hyperthermophilic Archaeon Sulfolobus solfataricus Possesses DNA and RNA Primase, Polymerase and 3' terminal Nucleotidyl Transferase Activities. Journal of Molecular Biology, 2004, 344, 1251-1263. | 4.2  | 69        |
| 43 | Structural insight into recruitment of translesion DNA polymerase Dpo4 to sliding clamp PCNA. Molecular Microbiology, 2009, 71, 678-691.  | 2.5  | 69        |
| 44 | Archaeal transcriptional regulation – variation on a bacterial theme?. Trends in Microbiology, 2005, 13, 262-265.   | 7.7  | 68        |
| 45 | Structure of an archaeal PCNA1-PCNA2-FEN1 complex: elucidating PCNA subunit and client enzyme specificity. Nucleic Acids Research, 2006, 34, 4515-4526.   | 14.5 | 64        |
| 46 | Ancient ESCRTs and the evolution of binary fission. Trends in Microbiology, 2009, 17, 507-513.  | 7.7  | 64        |
| 47 | Specificity and Function of Archaeal DNA Replication Initiator Proteins. Cell Reports, 2013, 3, 485-496.  | 6.4  | 64        |
| 48 | The Role of Transcription Factor B in Transcription Initiation and Promoter Clearance in the Archaeon Sulfolobus acidocaldarius. Journal of Biological Chemistry, 2000, 275, 12934-12940.   | 3.4  | 63        |
| 49 | Functional interplay between a virus and the ESCRT machinery in Archaea. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10783-10787.   | 7.1  | 62        |
| 50 | Physical and Functional Compartmentalization of Archaeal Chromosomes. Cell, 2019, 179, 165-179.e18.   | 28.9 | 62        |
| 51 | Basal and regulated transcription in Archaea. Biochemical Society Transactions, 2001, 29, 392-395.  | 3.4  | 61        |
| 52 | Sister chromatid junctions in the hyperthermophilic archaeon Sulfolobus solfataricus. EMBO Journal, 2007, 26, 816-824.  | 7.8  | 60        |
| 53 | Regulation of Minichromosome Maintenance Helicase Activity by Cdc6. Journal of Biological Chemistry, 2003, 278, 38059-38067.  | 3.4  | 57        |
| 54 | Coordination of multiple enzyme activities by a single PCNA in archaeal Okazaki fragment maturation. EMBO Journal, 2012, 31, 1556-1567.   | 7.8  | 53        |

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|----|---|------|-----------|
| 55 | A Complex Endomembrane System in the Archaeon <i>Ignicoccus hospitalis</i> Tapped by Nanoarchaeum <i>equitans</i> . <i>Frontiers in Microbiology</i> , 2017, 8, 1072.   | 3.5  | 52        |
| 56 | Characterization of an archaeal family 4 uracil DNA glycosylase and its interaction with PCNA and chromatin proteins. <i>Biochemical Journal</i> , 2005, 387, 859-863.  | 3.7  | 49        |
| 57 | Physical and functional interaction of the archaeal single-stranded DNA-binding protein SSB with RNA polymerase. <i>Nucleic Acids Research</i> , 2004, 32, 1065-1074.   | 14.5 | 48        |
| 58 | The promiscuous primase. <i>Trends in Genetics</i> , 2005, 21, 568-572.   | 6.7  | 47        |
| 59 | Identification of ORC1/CDC6-Interacting Factors in <i>Trypanosoma brucei</i> Reveals Critical Features of Origin Recognition Complex Architecture. <i>PLoS ONE</i> , 2012, 7, e32674.                                     | 2.5  | 47        |
| 60 | On the mechanism of loading the PCNA sliding clamp by RFC. <i>Molecular Microbiology</i> , 2008, 68, 216-222.   | 2.5  | 44        |
| 61 | Intersubunit allosteric communication mediated by a conserved loop in the MCM helicase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 1051-1056.                    | 7.1  | 43        |
| 62 | Molecular determinants of origin discrimination by Orc1 initiators in archaea. <i>Nucleic Acids Research</i> , 2011, 39, 3621-3631.   | 14.5 | 42        |
| 63 | A novel archaeal regulatory protein, Sta1, activates transcription from viral promoters. <i>Nucleic Acids Research</i> , 2006, 34, 4837-4845.   | 14.5 | 38        |
| 64 | Replication termination and chromosome dimer resolution in the archaeon <i>Sulfolobus solfataricus</i> . <i>EMBO Journal</i> , 2011, 30, 145-153.   | 7.8  | 38        |
| 65 | Archaeal orthologs of Cdc45 and GINS form a stable complex that stimulates the helicase activity of MCM. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 13390-13395. | 7.1  | 36        |
| 66 | Mechanism of Archaeal MCM Helicase Recruitment to DNA Replication Origins. <i>Molecular Cell</i> , 2016, 61, 287-296.   | 9.7  | 36        |
| 67 | Identification of a Conserved Archaeal RNA Polymerase Subunit Contacted by the Basal Transcription Factor TFB. <i>Journal of Biological Chemistry</i> , 2001, 276, 46693-46696.   | 3.4  | 35        |
| 68 | Molecular machines in archaeal DNA replication. <i>Current Opinion in Chemical Biology</i> , 2011, 15, 614-619.   | 6.1  | 35        |
| 69 | Structures of monomeric, dimeric and trimeric PCNA: PCNA-ring assembly and opening. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2008, 64, 941-949.  | 2.5  | 33        |
| 70 | Structural and functional analyses of the interaction of archaeal RNA polymerase with DNA. <i>Nucleic Acids Research</i> , 2012, 40, 9941-9952.   | 14.5 | 33        |
| 71 | The Chromosome Replication Machinery of the Archaeon <i>Sulfolobus solfataricus</i> . <i>Journal of Biological Chemistry</i> , 2006, 281, 15029-15032.  | 3.4  | 31        |
| 72 | Extra-chromosomal elements and the evolution of cellular DNA replication machineries. <i>Nature Reviews Molecular Cell Biology</i> , 2008, 9, 569-574.  | 37.0 | 31        |

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|----|---|------|-----------|
| 73 | Identification and characterization of a heterotrimeric archaeal DNA polymerase holoenzyme. <i>Nature Communications</i> , 2017, 8, 15075.  | 12.8 | 31        |
| 74 | Eukaryotic/Archaeal Primase and MCM Proteins Encoded in a Bacteriophage Genome. <i>Cell</i> , 2005, 120, 167-168.   | 28.9 | 30        |
| 75 | The sub-cellular localization of <i>Sulfolobus</i> DNA replication. <i>Nucleic Acids Research</i> , 2012, 40, 5487-5496.  | 14.5 | 30        |
| 76 | The Bre5/Ubp3 ubiquitin protease complex from budding yeast contributes to the cellular response to DNA damage. <i>DNA Repair</i> , 2007, 6, 1471-1484.   | 2.8  | 27        |
| 77 | Cell cycles and cell division in the archaea. <i>Current Opinion in Microbiology</i> , 2011, 14, 350-356.   | 5.1  | 26        |
| 78 | Archaeal DNA Replication. <i>Annual Review of Microbiology</i> , 2020, 74, 65-80.   | 7.3  | 25        |
| 79 | Influence of Chromatin and Single Strand Binding Proteins on the Activity of an Archaeal MCM. <i>Journal of Molecular Biology</i> , 2006, 357, 1345-1350.   | 4.2  | 24        |
| 80 | Hydroxyurea-Mediated Cytotoxicity Without Inhibition of Ribonucleotide Reductase. <i>Cell Reports</i> , 2016, 17, 1657-1670.  | 6.4  | 24        |
| 81 | Multi-scale architecture of archaeal chromosomes. <i>Molecular Cell</i> , 2021, 81, 473-487.e6.   | 9.7  | 24        |
| 82 | The Structure, Function and Roles of the Archaeal ESCRT Apparatus. <i>Sub-Cellular Biochemistry</i> , 2017, 84, 357-377.  | 2.4  | 23        |
| 83 | Primer synthesis by a eukaryotic-like archaeal primase is independent of its Fe-S cluster. <i>Nature Communications</i> , 2017, 8, 1718.  | 12.8 | 22        |
| 84 | DNA replication in the hyperthermophilic archaeon <i>Sulfolobus solfataricus</i> . <i>Biochemical Society Transactions</i> , 2003, 31, 674-676.   | 3.4  | 20        |
| 85 | Evolution and assembly of ESCRTs. <i>Biochemical Society Transactions</i> , 2009, 37, 151-155.  | 3.4  | 20        |
| 86 | The role of the DNA sliding clamp in Okazaki fragment maturation in archaea and eukaryotes. <i>Biochemical Society Transactions</i> , 2011, 39, 70-76.  | 3.4  | 19        |
| 87 | Archaeal Orc1/Cdc6 Proteins. <i>Sub-Cellular Biochemistry</i> , 2012, 62, 59-69.  | 2.4  | 17        |
| 88 | Multiple consecutive initiation of replication producing novel brush-like intermediates at the termini of linear viral dsDNA genomes with hairpin ends. <i>Nucleic Acids Research</i> , 2016, 44, 8799-8809.  | 14.5 | 17        |
| 89 | Initiating DNA replication: a matter of prime importance. <i>Biochemical Society Transactions</i> , 2019, 47, 351-356.  | 3.4  | 17        |
| 90 | Protein-Protein Interactions Leading to Recruitment of the Host DNA Sliding Clamp by the Hyperthermophilic <i>Sulfolobus islandicus</i> Rod-Shaped Virus 2. <i>Journal of Virology</i> , 2014, 88, 7105-7108. | 3.4  | 16        |

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|-----|---|------|-----------|
| 91  | Unique genome replication mechanism of the archaeal virus <scp>AFV</scp>1. <i>Molecular Microbiology</i> , 2014, 92, 1313-1325.   | 2.5  | 16        |
| 92  | DNA replication: archaeal oriGINS. <i>BMC Biology</i> , 2011, 9, 36.  | 3.8  | 14        |
| 93  | Emerging views of genome organization in Archaea. <i>Journal of Cell Science</i> , 2020, 133, .   | 2.0  | 14        |
| 94  | The Glutamate Switch Is Present in All Seven Clades of AAA+ Protein. <i>Biochemistry</i> , 2009, 48, 8774-8775.   | 2.5  | 13        |
| 95  | Initiation of DNA Replication in the Archaea. <i>Advances in Experimental Medicine and Biology</i> , 2017, 1042, 99-115.  | 1.6  | 12        |
| 96  | Chromosome organization affects genome evolution in Sulfolobus archaea. <i>Nature Microbiology</i> , 2022, 7, 820-830.  | 13.3 | 12        |
| 97  | The architecture of an Okazaki fragment-processing holoenzyme from the archaeon <i>Sulfolobus solfataricus</i>. <i>Biochemical Journal</i> , 2015, 465, 239-245.  | 3.7  | 11        |
| 98  | Archaeal Chromatin Organization. , 2010, , 205-217.   |      | 10        |
| 99  | Archaeal RNA polymerase: the influence of the protruding stalk in crystal packing and preliminary biophysical analysis of the Rpo13 subunit. <i>Biochemical Society Transactions</i> , 2011, 39, 25-30. | 3.4  | 10        |
| 100 | MCM Loading&#x2013;An Open-and-Shut Case?. <i>Molecular Cell</i> , 2013, 50, 457-458.   | 9.7  | 10        |
| 101 | [19] Preparation of components of archaeal transcription preinitiation complex. <i>Methods in Enzymology</i> , 2001, 334, 227-239.  | 1.0  | 9         |
| 102 | The interplay of DNA binding, ATP hydrolysis and helicase activities of the archaeal MCM helicase. <i>Biochemical Journal</i> , 2011, 436, 409-414.   | 3.7  | 9         |
| 103 | Archaeal Chromosome Biology. <i>Journal of Molecular Microbiology and Biotechnology</i> , 2014, 24, 420-427.  | 1.0  | 9         |
| 104 | Archaeal DNA Replication Origins and Recruitment of the MCM Replicative Helicase. <i>The Enzymes</i> , 2016, 39, 169-190.   | 1.7  | 9         |
| 105 | Trypanosome nuclear factors which bind to internal promoter elements of tRNA genes. <i>Nucleic Acids Research</i> , 1995, 23, 3103-3110.  | 14.5 | 6         |
| 106 | The loader of the rings. <i>Nature</i> , 2004, 429, 708-709.  | 27.8 | 6         |
| 107 | Prime-time progress. <i>Nature</i> , 2006, 439, 542-543.  | 27.8 | 6         |
| 108 | The combined DNA and RNA synthetic capabilities of archaeal DNA primase facilitate primer hand-off to the replicative DNA polymerase. <i>Nature Communications</i> , 2022, 13, 433.                     | 12.8 | 5         |

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|-----|--|-----|-----------|
| 109 | Analysis of the Archaeal ESCRT Apparatus. <i>Methods in Molecular Biology</i> , 2019, 1998, 1-11.  | 0.9 | 4         |
| 110 | High-resolution analysis of chromosome conformation in hyperthermophilic archaea. <i>STAR Protocols</i> , 2021, 2, 100562.   | 1.2 | 4         |
| 111 | Chromosome conformation capture assay combined with biotin enrichment for hyperthermophilic archaea. <i>STAR Protocols</i> , 2021, 2, 100576.  | 1.2 | 3         |
| 112 | DNA Replication and Cell Cycle. , 0, , 93-109.   |     | 3         |
| 113 | Phenotypic Characterization of <i>Sulfolobus islandicus</i> Strains Lacking the B-Family DNA Polymerases PolB2 and PolB3 Individually and in Combination. <i>Frontiers in Microbiology</i> , 2021, 12, 666974. | 3.5 | 2         |
| 114 | Three Domains Of Life. , 2010, , 27-37.  |     | 1         |
| 115 | Chromosomes and expression mechanisms Molecular transactions governing genome maintenance and expression. <i>Current Opinion in Genetics and Development</i> , 2004, 14, 103-105.                              | 3.3 | 0         |
| 116 | DNA Replication and the Cell Cycle. , 0, , 159-169.  |     | 0         |
| 117 | Chromatin Assembly, Cohesion, and Modification. , 2010, , 135-167.   |     | 0         |