# Mark Dillingham

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4603851/publications.pdf

Version: 2024-02-01

| | | | |
|---|---|---|---|
| 84 papers | 6,138 citations | 109264 35 h-index | 85498 71 g-index |
| 105 all docs | 105 docs citations | 105 times ranked | 4046 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Human HELB is a processive motor protein that catalyzes RPA clearance from single-stranded DNA. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2112376119. | 3.3 | 16 |
| 2 | Long DNA constructs to study helicases and nucleic acid translocases using optical tweezers. Methods in Enzymology, 2022, , . | 0.4 | 1 |
| 3 | Targeted control of pneumolysin production by a mobile genetic element in Streptococcus pneumoniae. Microbial Genomics, 2022, 8, . | 1.0 | 5 |
| 4 | Highly efficient CRISPR-mediated large DNA docking and multiplexed prime editing using a single baculovirus. Nucleic Acids Research, 2022, 50, 7783-7799. | 6.5 | 15 |
| 5 | A stapled peptide mimetic of the CtIP tetramerization motif interferes with double-strand break repair and replication fork protection. Science Advances, 2021, 7, . | 4.7 | 8 |
| 6 | Analysis of the PcrA-RNA polymerase complex reveals a helicase interaction motif and a role for PcrA/UvrD helicase in the suppression of R-loops. ELife, 2021, 10, . | 2.8 | 18 |
| 7 | CTP promotes efficient ParB-dependent DNA condensation by facilitating one-dimensional diffusion from parS. ELife, 2021, 10, . | 2.8 | 32 |
| 8 | Bulk and single-molecule analysis of a bacterial DNA2-like helicaseâ€“nuclease reveals a single-stranded DNA looping motor. Nucleic Acids Research, 2020, 48, 7991-8005. | 6.5 | 5 |
| 9 | Refined measurement of SecA-driven protein secretion reveals that translocation is indirectly coupled to ATP turnover. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31808-31816. | 3.3 | 27 |
| 10 | ParB dynamics and the critical role of the CTD in DNA condensation unveiled by combined force-fluorescence measurements. ELife, 2019, 8, . | 2.8 | 22 |
| 11 | Direct removal of RNA polymerase barriers to replication by accessory replicative helicases. Nucleic Acids Research, 2019, 47, 5100-5113. | 6.5 | 41 |
| 12 | CtIP forms a tetrameric dumbbell-shaped particle which bridges complex DNA end structures for double-strand break repair. ELife, 2019, 8, . | 2.8 | 23 |
| 13 | Force determination in lateral magnetic tweezers combined with TIRF microscopy. Nanoscale, 2018, 10, 4579-4590. | 2.8 | 27 |
| 14 | The Conformational Landscape of SMC: A FRET Study. Biophysical Journal, 2018, 114, 209a. | 0.2 | 0 |
| 15 | The molecular basis of protein toxin HicAâ€“dependent binding of the protein antitoxin HicB to DNA. Journal of Biological Chemistry, 2018, 293, 19429-19440. | 1.6 | 10 |
| 16 | The 2B subdomain of Rep helicase links translocation along DNA with protein displacement. Nucleic Acids Research, 2018, 46, 8917-8925. | 6.5 | 22 |
| 17 | The structure and function of an RNA polymerase interaction domain in the PcrA/UvrD helicase. Nucleic Acids Research, 2017, 45, 3875-3887. | 6.5 | 31 |
| 18 | Inhibiting translation elongation can aid genome duplication in Escherichia coli. Nucleic Acids Research, 2017, 45, 2571-2584. | 6.5 | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | The structural basis for dynamic DNA binding and bridging interactions which condense the bacterial centromere. ELife, 2017, 6, . | 2.8 | 64 |
| 20 | Chi hotspots trigger a conformational change in the helicase-like domain of AddAB to activate homologous recombination. Nucleic Acids Research, 2016, 44, 2727-2741. | 6.5 | 6 |
| 21 | Structural basis for the inhibition of RecBCD by Gam and its synergistic antibacterial effect with quinolones. ELife, 2016, 5, . | 2.8 | 50 |
| 22 | Specific and non-specific interactions of ParB with DNA: implications for chromosome segregation. Nucleic Acids Research, 2015, 43, 719-731. | 6.5 | 68 |
| 23 | Probing DNA Helicase Kinetics with Temperatureâ€Controlled Magnetic Tweezers. Small, 2015, 11, 1273-1284. | 5.2 | 21 |
| 24 | Recombination hotspots attenuate the coupled ATPase and translocase activities of an AddAB-type helicaseâ€“nuclease. Nucleic Acids Research, 2014, 42, 5633-5643. | 6.5 | 8 |
| 25 | Structural basis for translocation by AddAB helicaseâ€“nuclease and its arrest at Ï‡ sites. Nature, 2014, 508, 416-419. | 13.7 | 43 |
| 26 | Single molecule approaches to monitor the recognition and resection of double-stranded DNA breaks during homologous recombination. DNA Repair, 2014, 20, 119-129. | 1.3 | 11 |
| 27 | Engineering a reagentless biosensor for single-stranded DNA to measure real-time helicase activity in Bacillus. Biosensors and Bioelectronics, 2014, 61, 579-586. | 5.3 | 6 |
| 28 | Condensation of DNA Mediated by the Bacterial Centromere Binding Protein Spo0J/ParB. Biophysical Journal, 2014, 106, 429a. | 0.2 | 0 |
| 29 | Interactions Between the SMC-Complex, Spo0J and DNA. Biophysical Journal, 2014, 106, 73a-74a. | 0.2 | 0 |
| 30 | Probing the Kinetics of a Model Helicase-Nuclease with a Temperature-Controlled Magnetic Tweezers. Biophysical Journal, 2014, 106, 393a-394a. | 0.2 | 0 |
| 31 | AFM volumetric methods for the characterization of proteins and nucleic acids. Methods, 2013, 60, 113-121. | 1.9 | 47 |
| 32 | DNA Scanning Mechanism of a Translocating Motor Protein. Biophysical Journal, 2013, 104, 540a-541a. | 0.2 | 0 |
| 33 | On the mechanism of recombination hotspot scanning during double-stranded DNA break resection. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E2562-71. | 3.3 | 34 |
| 34 | Monomeric PcrA helicase processively unwinds plasmid lengths of DNA in the presence of the initiator protein RepD. Nucleic Acids Research, 2013, 41, 5010-5023. | 6.5 | 40 |
| 35 | Superfamily 1 helicases. Frontiers in Bioscience - Scholar, 2013, S5, 206-216. | 0.8 | 34 |
| 36 | The Conserved C-Terminus of the PcrA/UvrD Helicase Interacts Directly with RNA Polymerase. PLoS ONE, 2013, 8, e78141. | 1.1 | 48 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Insights into Chi recognition from the structure of an AddAB-type helicase-nuclease complex. EMBO Journal, 2012, 31, 1568-1578. | 3.5 | 56 |
| 38 | Alteration of Ï‡ recognition by RecBCD reveals a regulated molecular latch and suggests a channel-bypass mechanism for biological control. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8907-8912. | 3.3 | 27 |
| 39 | Modulation of the Translocation Properties of a Model Helicase by DNA Damage and Sequence Content within the Track. Biophysical Journal, 2012, 102, 611a. | 0.2 | 0 |
| 40 | Molecular determinants responsible for recognition of the single-stranded DNA regulatory sequence, Ï‡, by RecBCD enzyme. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8901-8906. | 3.3 | 52 |
| 41 | Using DNA as a Fiducial Marker To Study SMC Complex Interactions with the Atomic Force Microscope. Biophysical Journal, 2012, 102, 839-848. | 0.2 | 37 |
| 42 | A New Method for Inferring Hidden Markov Models from Noisy Time Sequences. PLoS ONE, 2012, 7, e29703. | 1.1 | 40 |
| 43 | Ironâ€“sulphur clusters in nucleic acid processing enzymes. Current Opinion in Structural Biology, 2012, 22, 94-100. | 2.6 | 126 |
| 44 | How to Build a DNA Unwinding Machine. Structure, 2012, 20, 1127-1128. | 1.6 | 3 |
| 45 | The conflict between DNA replication and transcription. Molecular Microbiology, 2012, 85, 12-20. | 1.2 | 82 |
| 46 | A Single-Molecule Approach to Visualize the Unwinding Activity of DNA Helicases. Methods in Molecular Biology, 2011, 778, 193-214. | 0.4 | 12 |
| 47 | Recombination Hotspots and SSB Proteins Couple Translocation and Unwinding Activities of the AddAb Helicase-Nuclease. Biophysical Journal, 2011, 100, 239a. | 0.2 | 0 |
| 48 | Recombination Hotspots and Single-Stranded DNA Binding Proteins Couple DNA Translocation to DNA Unwinding by the AddAB Helicase-Nuclease. Molecular Cell, 2011, 42, 806-816. | 4.5 | 36 |
| 49 | Superfamily I helicases as modular components of DNA-processing machines. Biochemical Society Transactions, 2011, 39, 413-423. | 1.6 | 59 |
| 50 | The AddAB helicaseâ€“nuclease catalyses rapid and processive DNA unwinding using a single Superfamily 1A motor domain. Nucleic Acids Research, 2011, 39, 2271-2285. | 6.5 | 39 |
| 51 | The processing of double-stranded DNA breaks for recombinational repair by helicaseâ€“nuclease complexes. DNA Repair, 2010, 9, 276-285. | 1.3 | 79 |
| 52 | Atomic Force Microscopy Shows that Chi Sequences and SSB Proteins Prevent DNA Reannealing Behind the Translocating AddAB Helicase-Nuclease. Biophysical Journal, 2010, 98, 65a. | 0.2 | 0 |
| 53 | Activation of a Helicase Motor Upon Encounter With a Specific Sequence in the DNA Track. Biophysical Journal, 2010, 98, 66a. | 0.2 | 0 |
| 54 | Visualizing helicases unwinding DNA at the single molecule level. Nucleic Acids Research, 2010, 38, 4448-4457. | 6.5 | 58 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | An Iron-Sulfur Cluster Is Essential for the Binding of Broken DNA by AddAB-type Helicase-Nucleases. Journal of Biological Chemistry, 2009, 284, 7746-7755. | 1.6 | 92 |
| 56 | The unstructured C-terminal extension of UvrD interacts with UvrB, but is dispensable for nucleotide excision repair. DNA Repair, 2009, 8, 1300-1310. | 1.3 | 56 |
| 57 | Rep Provides a Second Motor at the Replisome to Promote Duplication of Protein-Bound DNA. Molecular Cell, 2009, 36, 654-666. | 4.5 | 158 |
| 58 | Probing DNA Unwinding By Single Helicases. Biophysical Journal, 2009, 96, 414a. | 0.2 | 0 |
| 59 | Fluorescent Single-Stranded DNA Binding Protein as a Probe for Sensitive, Real-Time Assays of Helicase Activity. Biophysical Journal, 2008, 95, 3330-3339. | 0.2 | 63 |
| 60 | Protein modification for single molecule fluorescence microscopy. Organic and Biomolecular Chemistry, 2008, 6, 3031. | 1.5 | 16 |
| 61 | RecBCD Enzyme and the Repair of Double-Stranded DNA Breaks. Microbiology and Molecular Biology Reviews, 2008, 72, 642-671. | 2.9 | 479 |
| 62 | Directional Loading and Stimulation of PcrA Helicase by the Replication Initiator Protein RepD. Journal of Molecular Biology, 2007, 371, 336-348. | 2.0 | 47 |
| 63 | A Dual-nuclease Mechanism for DNA Break Processing by AddAB-type Helicase-nucleases. Journal of Molecular Biology, 2007, 371, 66-78. | 2.0 | 64 |
| 64 | Structure and Mechanism of Helicases and Nucleic Acid Translocases. Annual Review of Biochemistry, 2007, 76, 23-50. | 5.0 | 1,098 |
| 65 | Replicative Helicases: A Staircase with a Twist. Current Biology, 2006, 16, R844-R847. | 1.8 | 2 |
| 66 | The AddAB Helicase/Nuclease Forms a Stable Complex with Its Cognate Ï‡ Sequence During Translocation. Journal of Biological Chemistry, 2006, 281, 18610-18617. | 1.6 | 40 |
| 67 | Bipolar DNA Translocation Contributes to Highly Processive DNA Unwinding by RecBCD Enzyme. Journal of Biological Chemistry, 2005, 280, 37069-37077. | 1.6 | 44 |
| 68 | Translocation by the RecB Motor Is an Absolute Requirement for Ï‡-Recognition and RecA Protein Loading by RecBCD Enzyme. Journal of Biological Chemistry, 2005, 280, 37078-37087. | 1.6 | 40 |
| 69 | Crystal structure of RecBCD enzyme reveals a machine for processing DNA breaks. Nature, 2004, 432, 187-193. | 13.7 | 383 |
| 70 | RecBCD enzyme is a bipolar DNA helicase. Nature, 2003, 423, 893-897. | 13.7 | 196 |
| 71 | A Molecular Throttle. Cell, 2003, 114, 647-654. | 13.5 | 176 |
| 72 | Direct Measurement of Single-Stranded DNA Translocation by PcrA Helicase Using the Fluorescent Base Analogue 2-Aminopurine. Biochemistry, 2002, 41, 643-651. | 1.2 | 105 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | A Step Backward in Advancing DNA Replication. Molecular Cell, 2001, 8, 734-736. | 4.5 | 20 |
| 74 | Defining the roles of individual residues in the single-stranded DNA binding site of PcrA helicase. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 8381-8387. | 3.3 | 95 |
| 75 | Uncoupling DNA translocation and helicase activity in PcrA: direct evidence for an active mechanism. EMBO Journal, 2000, 19, 3799-3810. | 3.5 | 141 |
| 76 | Demonstration of Unidirectional Single-Stranded DNA Translocation by PcrA Helicase:â€‰ Measurement of Step Size and Translocation Speed. Biochemistry, 2000, 39, 205-212. | 1.2 | 222 |
| 77 | Site-directed mutagenesis of motif III in PcrA helicase reveals a role in coupling ATP hydrolysis to strand separation. Nucleic Acids Research, 1999, 27, 3310-3317. | 6.5 | 89 |
| 78 | Plasmid replication initiator protein RepD increases the processivity of PcrA DNA helicase. Nucleic Acids Research, 1999, 27, 1421-1428. | 6.5 | 70 |
| 79 | Crystal Structures of Complexes of PcrA DNA Helicase with a DNA Substrate Indicate an Inchworm Mechanism. Cell, 1999, 97, 75-84. | 13.5 | 756 |
| 80 | DNA binding mediates conformational changes and metal ion coordination in the active site of PcrA helicase 1 1Edited by A. R. Fersht. Journal of Molecular Biology, 1999, 290, 137-148. | 2.0 | 110 |
| 81 | Escherichia coli ribosomal protein L3 stimulates the helicase activity of the Bacillus stearothermophilus PcrA helicase. Nucleic Acids Research, 1998, 26, 2374-2379. | 6.5 | 22 |
| 82 | Repercussions of DNA tracking by the type IC restriction endonuclease EcoR124I on linear, circular and catenated substrates. EMBO Journal, 1996, 15, 6335-47. | 3.5 | 30 |
| 83 | Crystal structure of RecBCD : a machine for processing DNA breaks. , 0, 2005, . | | 1 |
| 84 | Towards a molecular mechanism underlying mitochondrial protein import through the TOM and TIM23 complexes. ELife, 0, 11, . | 2.8 | 15 |