Xiaolan Zhao

List of Publications by Year
in descending order

68 papers	5,148 citations	159585 30 h-index	106344 65 g-index
70 all docs	70 docs citations	70 times ranked	4455 citing authors

#	Article	IF	Citations
1	A Suppressor of Two Essential Checkpoint Genes Identifies a Novel Protein that Negatively Affects dNTP Pools. Molecular Cell, 1998, 2, 329-340.	9.7	681
2	Homologous recombination and its regulation. Nucleic Acids Research, 2012, 40, 5795-5818.	14.5	532
3	A SUMO ligase is part of a nuclear multiprotein complex that affects DNA repair and chromosomal organization. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 4777-4782.	7.1	394
4	Survival of DNA Damage in Yeast Directly Depends on Increased dNTP Levels Allowed by Relaxed Feedback Inhibition of Ribonucleotide Reductase. Cell, 2003, 112, 391-401.	28.9	382
5	Ubc9- and Mms21-Mediated Sumoylation Counteracts Recombinogenic Events atÂDamaged Replication Forks. Cell, 2006, 127, 509-522.	28.9	266
6	The Dun1 checkpoint kinase phosphorylates and regulates the ribonucleotide reductase inhibitor Sml1. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 3746-3751.	7.1	236
7	SUMO-Mediated Regulation of Nuclear Functions and Signaling Processes. Molecular Cell, 2018, 71, 409-418.	9.7	184
8	Extensive DNA Damage-Induced Sumoylation Contributes to Replication and Repair and Acts in Addition to the Mec1 Checkpoint. Molecular Cell, 2012, 45, 422-432.	9.7	171
9	Smc5â€"Smc6 mediate DNA double-strand-break repair by promoting sister-chromatid recombination. Nature Cell Biology, 2006, 8, 1032-1034.	10.3	170
10	Mlp-dependent anchorage and stabilization of a desumoylating enzyme is required to prevent clonal lethality. Journal of Cell Biology, 2004, 167, 605-611.	5.2	134
11	Nucleoporins Prevent DNA Damage Accumulation by Modulating Ulp1-dependent Sumoylation Processes. Molecular Biology of the Cell, 2007, 18, 2912-2923.	2.1	129
12	The Slx5-Slx8 Complex Affects Sumoylation of DNA Repair Proteins and Negatively Regulates Recombination. Molecular and Cellular Biology, 2007, 27, 6153-6162.	2.3	124
13	SUMO-mediated regulation of DNA damage repair and responses. Trends in Biochemical Sciences, 2015, 40, 233-242.	7.5	120
14	Structural and Functional Insights into the Roles of the Mms21 Subunit of the Smc5/6 Complex. Molecular Cell, 2009, 35, 657-668.	9.7	86
15	Mutational and Structural Analyses of the Ribonucleotide Reductase Inhibitor Sml1 Define Its Rnr1 Interaction Domain Whose Inactivation Allows Suppression of mec1 and rad53 Lethality. Molecular and Cellular Biology, 2000, 20, 9076-9083.	2.3	85
16	Rad52 SUMOylation affects the efficiency of the DNA repair. Nucleic Acids Research, 2010, 38, 4708-4721.	14.5	85
17	Interplay between the Smc5/6 complex and the Mph1 helicase in recombinational repair. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21252-21257.	7.1	84
18	Architecture of the Smc5/6 Complex of Saccharomyces cerevisiae Reveals a Unique Interaction between the Nse5-6 Subcomplex and the Hinge Regions of Smc5 and Smc6. Journal of Biological Chemistry, 2009, 284, 8507-8515.	3.4	83

#	ARTICLE	IF	CITATIONS
19	SUMOylation regulates telomere length homeostasis by targeting Cdc13. Nature Structural and Molecular Biology, 2011, 18, 920-926.	8.2	75
20	The Smc5/6 Complex and Esc2 Influence Multiple Replication-associated Recombination Processes in<i>Saccharomyces cerevisiae</i>. Molecular Biology of the Cell, 2010, 21, 2306-2314.	2.1	74
21	Functions and regulation of the multitasking FANCM family of DNA motor proteins. Genes and Development, 2015, 29, 1777-1788.	5.9	66
22	Smc5/6 Mediated Sumoylation of the Sgs1-Top3-Rmi1 Complex Promotes Removal of Recombination Intermediates. Cell Reports, 2016, 16, 368-378.	6.4	66
23	Cooperation of Sumoylated Chromosomal Proteins in rDNA Maintenance. PLoS Genetics, 2008, 4, e1000215.	3.5	61
24	Restriction of Replication Fork Regression Activities by a Conserved SMC Complex. Molecular Cell, 2014, 56, 436-445.	9.7	60
25	Dual roles of the SUMO-interacting motif in the regulation of Srs2 sumoylation. Nucleic Acids Research, 2012, 40, 7831-7843.	14.5	54
26	A new MCM modification cycle regulates DNA replication initiation. Nature Structural and Molecular Biology, 2016, 23, 209-216.	8.2	53
27	Concerted and differential actions of two enzymatic domains underlie Rad5 contributions to DNA damage tolerance. Nucleic Acids Research, 2015, 43, 2666-2677.	14.5	43
28	Relocation of Collapsed Forks to the Nuclear Pore Complex Depends on Sumoylation of DNA Repair Proteins and Permits Rad51 Association. Cell Reports, 2020, 31, 107635.	6.4	43
29	DNA break-induced sumoylation is enabled by collaboration between a SUMO ligase and the ssDNA-binding complex RPA. Genes and Development, 2015, 29, 1593-1598.	5.9	38
30	Acute Smc5/6 depletion reveals its primary role in rDNA replication by restraining recombination at fork pausing sites. PLoS Genetics, 2018, 14, e1007129.	3.5	35
31	Integrative analysis reveals unique structural and functional features of the Smc5/6 complex. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	35
32	The Smc5-Smc6 Complex Regulates Recombination at Centromeric Regions and Affects Kinetochore Protein Sumoylation during Normal Growth. PLoS ONE, 2012, 7, e51540.	2.5	31
33	Regulation of Ku-DNA Association by Yku70 C-terminal Tail and SUMO Modification. Journal of Biological Chemistry, 2014, 289, 10308-10317.	3.4	28
34	Sumoylation Influences DNA Break Repair Partly by Increasing the Solubility of a Conserved End Resection Protein. PLoS Genetics, 2015, 11, e1004899.	3.5	27
35	Cryo-EM structure of DNA-bound Smc5/6 reveals DNA clamping enabled by multi-subunit conformational changes. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	27
36	Rtt107 Is a Multi-functional Scaffold Supporting Replication Progression with Partner SUMO and Ubiquitin Ligases. Molecular Cell, 2015, 60, 268-279.	9.7	26

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37	Sumoylation and the DNA Damage Response. Biomolecules, 2012, 2, 376-388.	4.0	25
38	Sumoylation of the Rad1 nuclease promotes DNA repair and regulates its DNA association. Nucleic Acids Research, 2014, 42, 6393-6404.	14.5	25
39	Replication protein A (RPA) sumoylation positively influences the DNA damage checkpoint response in yeast. Journal of Biological Chemistry, 2019, 294, 2690-5388.	3.4	24
40	Molecular Basis for Control of Diverse Genome Stability Factors by the Multi-BRCT Scaffold Rtt107. Molecular Cell, 2019, 75, 238-251.e5.	9.7	21
41	Selective modulation of the functions of a conserved DNA motor by a histone fold complex. Genes and Development, 2015, 29, 1000-1005.	5.9	17
42	Differential regulation of the anti-crossover and replication fork regression activities of Mph1 by Mte1. Genes and Development, 2016, 30, 687-699.	5.9	17
43	A Versatile Scaffold Contributes to Damage Survival via Sumoylation and Nuclease Interactions. Cell Reports, 2014, 9, 143-152.	6.4	16
44	Multi-BRCT scaffolds use distinct strategies to support genome maintenance. Cell Cycle, 2016, 15, 2561-2570.	2.6	16
45	DNA polymerase Îµ relies on a unique domain for efficient replisome assembly and strand synthesis. Nature Communications, 2020, 11, 2437.	12.8	16
46	Binding of the Fkh1 Forkhead Associated Domain to a Phosphopeptide within the Mph1 DNA Helicase Regulates Mating-Type Switching in Budding Yeast. PLoS Genetics, 2016, 12, e1006094.	3.5	16
47	DNA damage checkpoint and recombinational repair differentially affect the replication stress tolerance of smc6 mutants. Molecular Biology of the Cell, 2013, 24, 2431-2441.	2.1	15
48	Sumoylation of the DNA polymerase Îµ by the Smc5/6 complex contributes to DNA replication. PLoS Genetics, 2019, 15, e1008426.	3.5	15
49	Sml1p Is a Dimer in Solution:â€‰ Characterization of Denaturation and Renaturation of Recombinant Sml1p. Biochemistry, 2004, 43, 8568-8578.	2.5	14
50	Lif1 SUMOylation and its role in non-homologous end-joining. Nucleic Acids Research, 2013, 41, 5341-5353.	14.5	13
51	Intricate SUMO-based control of the homologous recombination machinery. Genes and Development, 2019, 33, 1346-1354.	5.9	12
52	The Srs2 helicase dampens DNA damage checkpoint by recycling RPA from chromatin. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2020185118.	7.1	12
53	Structure Basis for Shaping the Nse4 Protein by the Nse1 and Nse3 Dimer within the Smc5/6 Complex. Journal of Molecular Biology, 2021, 433, 166910.	4.2	12
54	Replication fork regression and its regulation. FEMS Yeast Research, 2017, 17, fow110.	2.3	11

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55	Roles of SUMO in Replication Initiation, Progression, and Termination. Advances in Experimental Medicine and Biology, 2017, 1042, 371-393.	1.6	10
56	Structural basis for the multi-activity factor Rad5 in replication stress tolerance. Nature Communications, 2021, 12, 321.	12.8	10
57	SUMOylation of Rad52-Rad59 synergistically change the outcome of mitotic recombination. DNA Repair, 2016, 42, 11-25.	2.8	9
58	Replication-Associated Recombinational Repair: Lessons from Budding Yeast. Genes, 2016, 7, 48.	2.4	7
59	The Rtt107 BRCT scaffold and its partner modification enzymes collaborate to promote replication. Nucleus, 2016, 7, 346-351.	2.2	6
60	Esc2 orchestrates substrate-specific sumoylation by acting as a SUMO E2 cofactor in genome maintenance. Genes and Development, 2021, 35, 261-272.	5.9	6
61	Advances in SUMO-based regulation of homologous recombination. Current Opinion in Genetics and Development, 2021, 71, 114-119.	3.3	4
62	A guide for targeted SUMO removal. Genes and Development, 2017, 31, 719-720.	5.9	3
63	SUMO bridges Elg1 and SUMO interactors. Cell Cycle, 2011, 10, 3628-3628.	2.6	1
64	Role of Posttranslational Modifications in Replication Initiation. , 2016, , 371-392.		1
65	SUMO Teams Up with a Translocase to Save TOPO. Molecular Cell, 2017, 66, 577-578.	9.7	1
66	Multifaceted regulation of the sumoylation of the Sgs1 DNA helicase. Journal of Biological Chemistry, 2022, 298, 102092.	3.4	1
67	A STUbL wards off telomere fusions. EMBO Journal, 2013, 32, 775-777.	7.8	0
68	Structure of Rad5 provides insights into its role in tolerance to replication stress. Molecular and Cellular Oncology, 2021, 8, 1889348.	0.7	0