## Lorraine S Symington

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Double-Strand Break End Resection and Repair Pathway Choice. Annual Review of Genetics, 2011, 45, 247-271.	7.6	1,264
2	Role of <i>RAD52</i> Epistasis Group Genes in Homologous Recombination and Double-Strand Break Repair. Microbiology and Molecular Biology Reviews, 2002, 66, 630-670.	6.6	888
3	Sae2, Exo1 and Sgs1 collaborate in DNA double-strand break processing. Nature, 2008, 455, 770-774.	27.8	876
4	Recombination Proteins in Yeast. Annual Review of Genetics, 2004, 38, 233-271.	7.6	704
5	Microhomology-Mediated End Joining: A Back-up Survival Mechanism or Dedicated Pathway?. Trends in Biochemical Sciences, 2015, 40, 701-714.	7.5	452
6	The Nuclease Activity of Mre11 Is Required for Meiosis but Not for Mating Type Switching, End Joining, or Telomere Maintenance. Molecular and Cellular Biology, 1999, 19, 556-566.	2.3	410
7	DNA end resection: Many nucleases make light work. DNA Repair, 2009, 8, 983-995.	2.8	356
8	Mechanism and regulation of DNA end resection in eukaryotes. Critical Reviews in Biochemistry and Molecular Biology, 2016, 51, 195-212.	5.2	335
9	Mechanisms and Regulation of Mitotic Recombination in <i>Saccharomyces cerevisiae</i> . Genetics, 2014, 198, 795-835.	2.9	313
10	Template switching during break-induced replication. Nature, 2007, 447, 102-105.	27.8	300
11	Crystal structure of a Rad51 filament. Nature Structural and Molecular Biology, 2004, 11, 791-796.	8.2	265
12	Ku prevents Exo1 and Sgs1-dependent resection of DNA ends in the absence of a functional MRX complex or Sae2. EMBO Journal, 2010, 29, 3358-3369.	7.8	262
13	Break-induced replication: What is it and what is it for?. Cell Cycle, 2008, 7, 859-864.	2.6	258
14	RPA Coordinates DNA End Resection and Prevents Formation of DNA Hairpins. Molecular Cell, 2013, 50, 589-600.	9.7	225
15	End Resection at Double-Strand Breaks: Mechanism and Regulation. Cold Spring Harbor Perspectives in Biology, 2014, 6, a016436-a016436.	5.5	219
16	Nucleases and helicases take center stage in homologous recombination. Trends in Biochemical Sciences, 2009, 34, 264-272.	7.5	189
17	EXO1-A multi-tasking eukaryotic nuclease. DNA Repair, 2004, 3, 1549-1559.	2.8	176
18	RAD51 -Dependent Break-Induced Replication in Yeast. Molecular and Cellular Biology, 2004, 24, 2344-2351.	2.3	172

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19	DNA end resection—Unraveling the tail. DNA Repair, 2011, 10, 344-348.	2.8	164
20	RPA antagonizes microhomology-mediated repair of DNA double-strand breaks. Nature Structural and Molecular Biology, 2014, 21, 405-412.	8.2	162
21	Break-induced replication occurs by conservative DNA synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13475-13480.	7.1	156
22	Overlapping Functions of the <i>Saccharomyces cerevisiae</i> Mre11, Exo1 and Rad27 Nucleases in DNA Metabolism. Genetics, 2001, 159, 1423-1433.	2.9	151
23	Mus81 and Yen1 Promote Reciprocal Exchange during Mitotic Recombination to Maintain Genome Integrity in Budding Yeast. Molecular Cell, 2010, 40, 988-1000.	9.7	150
24	The Mre11 Nuclease Is Not Required for 5′ to 3′ Resection at Multiple HO-Induced Double-Strand Breaks. Molecular and Cellular Biology, 2004, 24, 9682-9694.	2.3	143
25	The Yeast Recombinational Repair Protein Rad59 Interacts With Rad52 and Stimulates Single-Strand Annealing. Genetics, 2001, 159, 515-525.	2.9	126
26	DNA End Resection: Mechanism and Control. Annual Review of Genetics, 2021, 55, 285-307.	7.6	105
27	Mutations in yeast Rad51 that partially bypass the requirement for Rad55 and Rad57 in DNA repair by increasing the stability of Rad51-DNA complexes. EMBO Journal, 2002, 21, 3160-3170.	7.8	104
28	RAD51 Is Required for the Repair of Plasmid Double-Stranded DNA Gaps from Either Plasmid or Chromosomal Templates. Molecular and Cellular Biology, 2000, 20, 1194-1205.	2.3	96
29	The Cdk/Cdc14 Module Controls Activation of the Yen1 Holliday Junction Resolvase to Promote Genome Stability. Molecular Cell, 2014, 54, 80-93.	9.7	91
30	Intramolecular recombination of linear DNA catalyzed by the Escherichia coli RecE recombination system. Journal of Molecular Biology, 1985, 186, 515-525.	4.2	89
31	DNA Repair Mechanisms and Their Biological Roles in the Malaria Parasite Plasmodium falciparum. Microbiology and Molecular Biology Reviews, 2014, 78, 469-486.	6.6	88
32	Aberrant Double-Strand Break Repair Resulting in Half Crossovers in Mutants Defective for Rad51 or the DNA Polymerase δ Complex. Molecular and Cellular Biology, 2009, 29, 1432-1441.	2.3	82
33	Mutations in Mre11 Phosphoesterase Motif I That Impair Saccharomyces cerevisiae Mre11-Rad50-Xrs2 Complex Stability in Addition to Nuclease Activity. Genetics, 2005, 171, 1561-1570.	2.9	76
34	Genetic recombination of homologous plasmids catalyzed by cell-free extracts of saccharomyces cerevisiae. Cell, 1983, 35, 805-813.	28.9	73
35	Role of the Mre11 Complex in Preserving Genome Integrity. Genes, 2018, 9, 589.	2.4	73
36	Decreased Meiotic Intergenic Recombination and Increased Meiosis I Nondisjunction in exo1 Mutants of Saccharomyces cerevisiae. Genetics, 2000, 156, 1549-1557.	2.9	71

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37	Xrs2 Dependent and Independent Functions of the Mre11-Rad50 Complex. Molecular Cell, 2016, 64, 405-415.	9.7	66
38	DNA Polymerase Delta Synthesizes Both Strands during Break-Induced Replication. Molecular Cell, 2019, 76, 371-381.e4.	9.7	65
39	Role of the <i>Saccharomyces cerevisiae</i> Rad51 Paralogs in Sister Chromatid Recombination. Genetics, 2008, 178, 113-126.	2.9	63
40	The Requirement for ATP Hydrolysis by Saccharomyces cerevisiae Rad51 Is Bypassed by Mating-Type Heterozygosity or RAD54 in High Copy. Molecular and Cellular Biology, 2002, 22, 6336-6343.	2.3	60
41	A Novel Allele of RAD52 That Causes Severe DNA Repair and Recombination Deficiencies Only in the Absence of RAD51 or RAD59. Genetics, 1999, 153, 1117-1130.	2.9	60
42	Mre11-Sae2 and RPA Collaborate to Prevent Palindromic Gene Amplification. Molecular Cell, 2015, 60, 500-508.	9.7	59
43	Aberrant Double-Strand Break Repair in rad51 Mutants of Saccharomyces cerevisiae. Molecular and Cellular Biology, 2000, 20, 9162-9172.	2.3	57
44	Template Switching During Break-Induced Replication Is Promoted by the Mph1 Helicase in <i>Saccharomyces cerevisiae</i> . Genetics, 2014, 196, 1017-1028.	2.9	56
45	Some disassembly required: role of DNA translocases in the disruption of recombination intermediates and dead-end complexes. Genes and Development, 2006, 20, 2479-2486.	5.9	54
46	Mph1 and Mus81-Mms4 Prevent Aberrant Processing of Mitotic Recombination Intermediates. Molecular Cell, 2013, 52, 63-74.	9.7	52
47	RPA Stabilization of Single-Stranded DNA Is Critical for Break-Induced Replication. Cell Reports, 2016, 17, 3359-3368.	6.4	52
48	Guidelines for DNA recombination and repair studies: Cellular assays of DNA repair pathways. Microbial Cell, 2019, 6, 1-64.	3.2	47
49	The Rad52–Rad59 complex interacts with Rad51 and replication protein A. DNA Repair, 2003, 2, 1127-1134.	2.8	45
50	The Rad51 paralog complex Rad55-Rad57 acts as a molecular chaperone during homologous recombination. Molecular Cell, 2021, 81, 1043-1057.e8.	9.7	45
51	Sae2 promotes DNA damage resistance by removing the Mre11–Rad50–Xrs2 complex from DNA and attenuating Rad53 signaling. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1880-7.	7.1	44
52	Gene targeting in yeast is initiated by two independent strand invasions. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 15392-15397.	7.1	42
53	The rad51-K191R ATPase-Defective Mutant Is Impaired forPresynaptic Filament Formation. Molecular and Cellular Biology, 2006, 26, 9544-9554.	2.3	40
54	The Rad1-Rad10 nuclease promotes chromosome translocations between dispersed repeats. Nature Structural and Molecular Biology, 2012, 19, 964-971.	8.2	40

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55	Defining the influence of Rad51 and Dmc1 lineage-specific amino acids on genetic recombination. Genes and Development, 2019, 33, 1191-1207.	5.9	38
56	Suppression of the Double-Strand-Break-Repair Defect of the <i>Saccharomyces cerevisiae rad57</i> Mutant. Genetics, 2009, 181, 1195-1206.	2.9	37
57	Sae2 antagonizes Rad9 accumulation at DNA double-strand breaks to attenuate checkpoint signaling and facilitate end resection. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11961-E11969.	7.1	37
58	Opposing roles for DNA structure-specific proteins Rad1, Msh2, Msh3, and Sgs1 in yeast gene targeting. EMBO Journal, 2005, 24, 2214-2223.	7.8	35
59	Extensive DNA End Processing by Exo1 and Sgs1 Inhibits Break-Induced Replication. PLoS Genetics, 2010, 6, e1001007.	3.5	34
60	RAD51-independent inverted-repeat recombination by a strand-annealing mechanism. DNA Repair, 2011, 10, 408-415.	2.8	33
61	Replication protein A prevents promiscuous annealing between short sequence homologies: Implications for genome integrity. BioEssays, 2015, 37, 305-313.	2.5	33
62	Crossed-Stranded DNA Structures for investigating the Molecular Dynamics of the Holliday Junction. Journal of Molecular Biology, 1993, 229, 812-820.	4.2	30
63	Meiotic recombination within the centromere of a yeast chromosome. Cell, 1988, 52, 237-240.	28.9	29
64	A unified molecular mechanism for the regulation of acetyl-CoA carboxylase by phosphorylation. Cell Discovery, 2016, 2, 16044.	6.7	29
65	Breaking Up Just Got Easier to Do. Cell, 2009, 138, 20-22.	28.9	21
66	Overcoming the chromatin barrier to end resection. Cell Research, 2013, 23, 317-319.	12.0	21
67	Mechanism for inverted-repeat recombination induced by a replication fork barrier. Nature Communications, 2022, 13, 32.	12.8	21
68	Xrs2 and Tel1 Independently Contribute to MR-Mediated DNA Tethering and Replisome Stability. Cell Reports, 2018, 25, 1681-1692.e4.	6.4	19
69	DNA end resection during homologous recombination. Current Opinion in Genetics and Development, 2021, 71, 99-105.	3.3	19
70	Unique and overlapping functions of the Exo1, Mre11 and Pso2 nucleases in DNA repair. DNA Repair, 2008, 7, 655-662.	2.8	18
71	Phosphoproteomics reveals a distinctive Mec1/ATR signaling response upon DNA end hyperâ€resection. EMBO Journal, 2021, 40, e104566.	7.8	17
72	Stressing Out About RAD52. Molecular Cell, 2016, 64, 1017-1019.	9.7	16

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73	CDK and Mec1/Tel1-catalyzed phosphorylation of Sae2 regulate different responses to DNA damage. Nucleic Acids Research, 2019, 47, 11238-11249.	14.5	16
74	The dark side of homology-directed repair. DNA Repair, 2021, 106, 103181.	2.8	16
75	Making the cut. Nature, 2014, 514, 39-40.	27.8	15
76	Rad51 gain-of-function mutants that exhibit high affinity DNA binding cause DNA damage sensitivity in the absence of Srs2. Nucleic Acids Research, 2008, 36, 6504-6510.	14.5	13
77	Resection Activity of the Sgs1 Helicase Alters the Affinity of DNA Ends for Homologous Recombination Proteins in <i>Saccharomyces cerevisiae</i> . Genetics, 2013, 195, 1241-1251.	2.9	13
78	MOLECULAR BIOLOGY: New Year's ResolutionResolving Resolvases. Science, 2004, 303, 184-185.	12.6	12
79	Interstitial telomere sequences disrupt break-induced replication and drive formation of ectopic telomeres. Nucleic Acids Research, 2020, 48, 12697-12710.	14.5	12
80	Efficient DNA double-strand break formation at single or multiple defined sites in theSaccharomyces cerevisiaegenome. Nucleic Acids Research, 2020, 48, e115-e115.	14.5	12
81	Sgs1—The Maestro of Recombination. Cell, 2012, 149, 257-259.	28.9	11
82	Processing of DNA Double-Strand Breaks in Yeast. Methods in Enzymology, 2018, 600, 1-24.	1.0	10
83	Resolving Resolvases: The Final Act?. Molecular Cell, 2008, 32, 603-604.	9.7	9
84	Sgs1 and Exo1 suppress targeted chromosome duplication during ends-in and ends-out gene targeting. DNA Repair, 2014, 22, 12-23.	2.8	9
85	Keeping it real: MRX–Sae2 clipping of natural substrates. Genes and Development, 2017, 31, 2311-2312.	5.9	7
86	Identification of Nucleases and Phosphatases by Direct Biochemical Screen of the Saccharomyces cerevisiae Proteome. PLoS ONE, 2009, 4, e6993.	2.5	5
87	Initiation and completion of spontaneous mitotic recombination occur in different cell cycle phases. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 8045-8046.	7.1	2
88	Recognition for Discoveries in DNA Repair. New England Journal of Medicine, 2019, 381, 677-679.	27.0	1
89	Mechanism and regulation of DNA end processing. FASEB Journal, 2012, 26, 102.1.	0.5	0
90	Intrachromosomal Recombination in Yeast. Methods in Molecular Biology, 2021, 2153, 193-200.	0.9	0