Rodney Rothstein

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	[12] One-step gene disruption in yeast. Methods in Enzymology, 1983, 101, 202-211.	0.4	3,452
2	The double-strand-break repair model for recombination. Cell, 1983, 33, 25-35.	13.5	2,687
3	Elevated recombination rates in transcriptionally active DNA. Cell, 1989, 56, 619-630.	13.5	1,692
4	Yeast transformation: a model system for the study of recombination Proceedings of the National Academy of Sciences of the United States of America, 1981, 78, 6354-6358.	3.3	1,559
5	[19] Targeting, disruption, replacement, and allele rescue: Integrative DNA transformation in yeast. Methods in Enzymology, 1991, 194, 281-301.	0.4	1,319
6	Choreography of the DNA Damage Response. Cell, 2004, 118, 699-713.	13.5	829
7	Repair of Strand Breaks by Homologous Recombination. Cold Spring Harbor Perspectives in Biology, 2013, 5, a012740-a012740.	2.3	706
8	A Suppressor of Two Essential Checkpoint Genes Identifies a Novel Protein that Negatively Affects dNTP Pools. Molecular Cell, 1998, 2, 329-340.	4.5	681
9	A hyper-recombination mutation in S. cerevisiae identifies a novel eukaryotic topoisomerase. Cell, 1989, 58, 409-419.	13.5	542
10	[14] Genetic applications of yeast transformation with linear and gapped plasmids. Methods in Enzymology, 1983, 101, 228-245.	0.4	515
11	DNA strand annealing is promoted by the yeast Rad52 protein Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 10729-10734.	3.3	453
12	Rad52 forms DNA repair and recombination centers during S phase. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 8276-8282.	3.3	409
13	Colocalization of multiple DNA double-strand breaks at a single Rad52 repair centre. Nature Cell Biology, 2003, 5, 572-577.	4.6	388
14	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.	13.5	382
15	HDACs link the DNA damage response, processing of double-strand breaks and autophagy. Nature, 2011, 471, 74-79.	13.7	368
16	The Smc5–Smc6 complex and SUMO modification of Rad52 regulates recombinational repair at the ribosomal gene locus. Nature Cell Biology, 2007, 9, 923-931.	4.6	345
17	Increased chromosome mobility facilitates homology search during recombination. Nature Cell Biology, 2012, 14, 510-517.	4.6	325
18	Mechanisms and Regulation of Mitotic Recombination in <i>Saccharomyces cerevisiae</i> . Genetics, 2014, 198, 795-835.	1.2	313

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19	CRISPR-Mediated Base Editing Enables Efficient Disruption of Eukaryotic Genes through Induction of STOP Codons. Molecular Cell, 2017, 67, 1068-1079.e4.	4.5	283
20	Replication fork pausing and recombination or "gimme a break― Genes and Development, 2000, 14, 1-10.	2.7	279
21	The RecQ DNA Helicases in DNA Repair. Annual Review of Genetics, 2010, 44, 393-417.	3.2	265
22	Holliday Junctions Accumulate in Replication Mutants via a RecA Homolog-Independent Mechanism. Cell, 1997, 90, 87-96.	13.5	261
23	The ribonucleotide reductase inhibitor Sml1 is a new target of the Mec1/Rad53 kinase cascade during growth and in response to DNA damage. EMBO Journal, 2001, 20, 3544-3553.	3.5	248
24	Evolutionary Implications of the Frequent Horizontal Transfer of Mismatch Repair Genes. Cell, 2000, 103, 711-721.	13.5	246
25	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.	3.3	236
26	Genome-Wide Analysis of Rad52 Foci Reveals Diverse Mechanisms Impacting Recombination. PLoS Genetics, 2007, 3, e228.	1.5	176
27	Three-Dimensional Microscopy of the Rad51 Recombination Protein during Meiotic Prophase. Plant Cell, 1999, 11, 809-824.	3.1	167
28	Cloning-Free PCR-Based Allele Replacement Methods. Genome Research, 1997, 7, 1174-1183.	2.4	162
29	Direct Association between the Yeast Rad51 and Rad54 Recombination Proteins. Journal of Biological Chemistry, 1996, 271, 33181-33186.	1.6	153
30	RMI1/NCE4, a suppressor of genome instability, encodes a member of the RecQ helicase/Topo III complex. EMBO Journal, 2005, 24, 2024-2033.	3.5	150
31	Differential Regulation of the Cellular Response to DNA Double-Strand Breaks in G1. Molecular Cell, 2008, 30, 73-85.	4.5	149
32	DNA damage checkpoint and repair centers. Current Opinion in Cell Biology, 2004, 16, 328-334.	2.6	138
33	A yeast mating-selection scheme for detection of protein – protein interactions. Nucleic Acids Research, 1994, 22, 1778-1779.	6.5	125
34	The Complete Set of Predicted Genes from <i>Saccharomyces cerevisiae</i> in a Readily Usable Form. Genome Research, 1997, 7, 1169-1173.	2.4	124
35	The Slx5-Slx8 Complex Affects Sumoylation of DNA Repair Proteins and Negatively Regulates Recombination. Molecular and Cellular Biology, 2007, 27, 6153-6162.	1.1	124
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Sex, maps, and imprinting. Cell, 1991, 64, 1-3.

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37	Choreography of recombination proteins during the DNA damage response. DNA Repair, 2009, 8, 1068-1076.	1.3	103
38	Interaction with Rad51 Is Indispensable for Recombination Mediator Function of Rad52. Journal of Biological Chemistry, 2002, 277, 40132-40141.	1.6	102
39	A Genetic Screen for top3 Suppressors in Saccharomyces cerevisiae Identifies SHU1, SHU2, PSY3 and CSM2. Genetics, 2005, 169, 1275-1289.	1.2	92
40	Cloning-free genome alterations in saccharomyces cereuisiae using adaptamer-mediated PCR. Methods in Enzymology, 2002, 350, 258-277.	0.4	91
41	At Loose Ends: Resecting a Double-Strand Break. Cell, 2009, 137, 807-810.	13.5	89
42	Sec24p and Sec16p cooperate to regulate the GTP cycle of the COPII coat. EMBO Journal, 2012, 31, 1014-1027.	3.5	88
43	Mutations in Homologous Recombination Genes Rescue <i>top3</i> Slow Growth in <i>Saccharomyces cerevisiae</i> . Genetics, 2002, 162, 647-662.	1.2	86
44	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.	1.1	85
45	Alu elements mediate <i>MYB</i> gene tandem duplication in human T-ALL. Journal of Experimental Medicine, 2007, 204, 3059-3066.	4.2	85
46	Histone H3K56 Acetylation, Rad52, and Non-DNA Repair Factors Control Double-Strand Break Repair Choice with the Sister Chromatid. PLoS Genetics, 2013, 9, e1003237.	1.5	84
47	The Role of DNA Double-Strand Breaks in Spontaneous Homologous Recombination in S. cerevisiae. PLoS Genetics, 2006, 2, e194.	1.5	82
48	ScreenMill: A freely available software suite for growth measurement, analysis and visualization of high-throughput screen data. BMC Bioinformatics, 2010, 11, 353.	1.2	82
49	The Shu complex, which contains Rad51 paralogues, promotes DNA repair through inhibition of the Srs2 anti-recombinase. Molecular Biology of the Cell, 2011, 22, 1599-1607.	0.9	82
50	Selective ploidy ablation, a high-throughput plasmid transfer protocol, identifies new genes affecting topoisomerase l–induced DNA damage. Genome Research, 2011, 21, 477-486.	2.4	81
51	Rad52. Current Biology, 2009, 19, R676-R677.	1.8	80
52	The ribonucleotide reductase inhibitor, Sml1, is sequentially phosphorylated, ubiquitylated and degraded in response to DNA damage. Nucleic Acids Research, 2010, 38, 6490-6501.	6.5	73
53	A Molecular Genetic Dissection of the Evolutionarily Conserved N Terminus of Yeast Rad52. Genetics, 2002, 161, 549-562.	1.2	73
54	Localization of recombination proteins and Srs2 reveals anti-recombinase function in vivo. Journal of Cell Biology, 2009, 185, 969-981.	2.3	72

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55	Multi-scale tracking reveals scale-dependent chromatin dynamics after DNA damage. Molecular Biology of the Cell, 2017, 28, 3323-3332.	0.9	71
56	Deletions of a tyrosine tRNA gene in S. cerevisiae. Cell, 1979, 17, 185-190.	13.5	69
57	An Allele of RFA1 Suppresses RAD52-Dependent Double-Strand Break Repair in Saccharomyces cerevisiae. Genetics, 1999, 151, 447-458.	1.2	68
58	Characterization of genetic interactions with RFA1: the role of RPA in DNA replication and telomere maintenance. Biochimie, 2000, 82, 71-78.	1.3	67
59	DNA in motion during double-strand break repair. Trends in Cell Biology, 2013, 23, 529-536.	3.6	64
60	Sgs1 function in the repair of DNA replication intermediates is separable from its role in homologous recombinational repair. EMBO Journal, 2009, 28, 915-925.	3.5	60
61	Localization of checkpoint and repair proteins in eukaryotes. Biochimie, 2005, 87, 579-589.	1.3	59
62	Rad52 recruitment is DNA replication independent and regulated by Cdc28 and the Mec1 kinase. EMBO Journal, 2009, 28, 1121-1130.	3.5	59
63	Efficient PCR-based gene disruption inSaccharomyces strains using intergenic primers. Yeast, 2002, 19, 319-328.	0.8	58
64	Cooperativity of Mus81·Mms4 with Rad54 in the Resolution of Recombination and Replication Intermediates. Journal of Biological Chemistry, 2009, 284, 7733-7745.	1.6	57
65	Quality control of DNA break metabolism: in the â€~end', it's a good thing. EMBO Journal, 2008, 27, 581-588.	3.5	56
66	Cell Biology of Mitotic Recombination. Cold Spring Harbor Perspectives in Biology, 2015, 7, a016535.	2.3	54
67	Cell Cycle-Regulated Centers of DNA Double-Strand Break Repair. Cell Cycle, 2003, 2, 477-481.	1.3	53
68	Chromosome-Scale Genetic Mapping Using a Set of 16 Conditionally Stable <i>Saccharomyces cerevisiae</i> Chromosomes. Genetics, 2008, 180, 1799-1808.	1.2	53
69	Identification of a Mouse Homologue of the Saccharomyces cerevisiae Recombination and Repair Gene, RAD52. Genomics, 1994, 23, 300-303.	1.3	51
70	Role of the Rad52 Amino-terminal DNA Binding Activity in DNA Strand Capture in Homologous Recombination. Journal of Biological Chemistry, 2009, 284, 33275-33284.	1.6	50
71	Intragenic Inversion of mtDNA: A New Type of Pathogenic Mutation in a Patient with Mitochondrial Myopathy. American Journal of Human Genetics, 2000, 66, 1900-1904.	2.6	48
72	Guidelines for DNA recombination and repair studies: Cellular assays of DNA repair pathways. Microbial Cell, 2019, 6, 1-64.	1.4	47

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73	The Absence of Top3 Reveals an Interaction Between the Sgs1 and Pif1 DNA Helicases in Saccharomyces cerevisiae. Genetics, 2006, 174, 555-573.	1.2	45
74	Telomere Length Homeostasis Responds to Changes in Intracellular dNTP Pools. Genetics, 2013, 193, 1095-1105.	1.2	44
75	Phosphorylation-Regulated Transitions in an Oligomeric State Control the Activity of the Sae2 DNA Repair Enzyme. Molecular and Cellular Biology, 2014, 34, 778-793.	1.1	41
76	DNA Repair: Keeping It Together. Current Biology, 2004, 14, R994-R996.	1.8	40
77	Multiple start codons and phosphorylation result in discrete Rad52 protein species. Nucleic Acids Research, 2006, 34, 2587-2597.	6.5	38
78	Defining the influence of Rad51 and Dmc1 lineage-specific amino acids on genetic recombination. Genes and Development, 2019, 33, 1191-1207.	2.7	38
79	Cell cycle-regulated centers of DNA double-strand break repair. Cell Cycle, 2003, 2, 479-83.	1.3	36
80	Rad52 and Rad59 exhibit both overlapping and distinct functions. DNA Repair, 2007, 6, 27-37.	1.3	34
81	Long telomeres are preferentially extended during recombination-mediated telomere maintenance. Nature Structural and Molecular Biology, 2011, 18, 451-456.	3.6	34
82	DNA-damaging agents stimulate the formation of directed reciprocal translocations in Saccharomyces cerevisiae. Mutation Research DNA Repair, 1994, 314, 121-133.	3.8	32
83	Kinetochore asymmetry defines a single yeast lineage. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6673-6678.	3.3	30
84	Cell Biology of Homologous Recombination in Yeast. Methods in Molecular Biology, 2011, 745, 523-536.	0.4	30
85	Rif2 Promotes a Telomere Fold-Back Structure through Rpd3L Recruitment in Budding Yeast. PLoS Genetics, 2012, 8, e1002960.	1.5	30
86	Increased chromosomal mobility after DNA damage is controlled by interactions between the recombination machinery and the checkpoint. Genes and Development, 2018, 32, 1242-1251.	2.7	29
87	Telomerase Is Essential to Alleviate Pif1-Induced Replication Stress at Telomeres. Genetics, 2009, 183, 779-791.	1.2	28
88	A role for the unfolded protein response stress sensor ERN1 in regulating the response to MEK inhibitors in KRAS mutant colon cancers. Genome Medicine, 2018, 10, 90.	3.6	28
89	Systematic hybrid LOH: a new method to reduce false positives and negatives during screening of yeast gene deletion libraries. Yeast, 2006, 23, 1097-1106.	0.8	27
90	A Synthetic Dosage Lethal Genetic Interaction Between <i>CKS1B</i> and <i>PLK1</i> Is Conserved in Yeast and Human Cancer Cells. Genetics, 2016, 204, 807-819.	1.2	27

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91	More is not always better: the genetic constraints of polyploidy. Trends in Genetics, 2007, 23, 263-266.	2.9	25
92	Poetry in motion: Increased chromosomal mobility after DNA damage. DNA Repair, 2017, 56, 102-108.	1.3	24
93	Creation of a deletion series of mouse YACs covering a 500 kb region aroundXist. Nucleic Acids Research, 1994, 22, 1830-1837.	6.5	23
94	High-Resolution YAC–Cosmid–STS Map of Human Chromosome 13. Genomics, 1998, 47, 26-43.	1.3	22
95	YAC transgene-mediated olfactory receptor gene choice. , 2000, 217, 225-231.		22
96	Timing is everything: cell cycle control of Rad52. Cell Division, 2010, 5, 7.	1.1	21
97	The genetic consequences of ablating helicase activity and the Top3 interaction domain of Sgs1. DNA Repair, 2008, 7, 558-571.	1.3	20
98	Most, but not all, yeast strains in the deletion library contain the [<i>PIN</i> ⁺] prion. Yeast, 2010, 27, 159-166.	0.8	20
99	Srs2 overexpression reveals a helicase-independent role at replication forks that requires diverse cell functions. DNA Repair, 2011, 10, 506-517.	1.3	19
100	Xrs2 and Tel1 Independently Contribute to MR-Mediated DNA Tethering and Replisome Stability. Cell Reports, 2018, 25, 1681-1692.e4.	2.9	19
101	Rad52 multimerization is important for its nuclear localization in Saccharomyces cerevisiae. DNA Repair, 2008, 7, 57-66.	1.3	18
102	DNA damage triggers increased mobility of chromosomes in G1-phase cells. Molecular Biology of the Cell, 2019, 30, 2620-2625.	0.9	18
103	Rad5 dysregulation drives hyperactive recombination at replication forks resulting in cisplatin sensitivity and genome instability. Nucleic Acids Research, 2019, 47, 9144-9159.	6.5	17
104	Modification of the bacteriophage vector M13mp2: introduction of new restriction sites for cloning. Gene, 1981, 15, 167-176.	1.0	16
105	Assembly of Ordered Contigs of Cosmids Selected with YACs of Human Chromosome 13. Genomics, 1994, 21, 525-537.	1.3	16
106	New vectors for manipulation and selection of functional yeast artificial chromosomes (YACs) containing human DNA inserts. Gene, 1995, 155, 167-174.	1.0	16
107	Rsp5, a Ubiquitin-Protein Ligase, Is Involved in Degradation of the Single-Stranded-DNA Binding Protein Rfa1 in <i>Saccharomyces cerevisiae</i> . Molecular and Cellular Biology, 2000, 20, 224-232.	1.1	16
108	Physical and genetic-interaction density reveals functional organization and informs significance cutoffs in genome-wide screens. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7389-7394.	3.3	16

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109	Sml1p Is a Dimer in Solution:  Characterization of Denaturation and Renaturation of Recombinant Sml1p. Biochemistry, 2004, 43, 8568-8578.	1.2	14
110	Impaired Manganese Metabolism Causes Mitotic Misregulation. Journal of Biological Chemistry, 2012, 287, 18717-18729.	1.6	14
111	The shuffling of a mortal coil. Nature Genetics, 1999, 22, 4-6.	9.4	13
112	Bringing Rad52 foci into focus. Journal of Cell Biology, 2011, 194, 665-667.	2.3	13
113	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.	1.2	13
114	kar-mediated plasmid transfer between yeast strains: Alternative to traditional transformation methods. Methods in Enzymology, 2002, 350, 278-289.	0.4	12
115	Cells Expressing Murine RAD52 Splice Variants Favor Sister Chromatid Repair. Molecular and Cellular Biology, 2006, 26, 3752-3763.	1.1	11
116	Recombination-Mediated Telomere Maintenance in Saccharomyces cerevisiae Is Not Dependent on the Shu Complex. PLoS ONE, 2016, 11, e0151314.	1.1	11
117	Rad10 exhibits lesion-dependent genetic requirements for recruitment to DNA double-strand breaks in Saccharomyces cerevisiae. Nucleic Acids Research, 2009, 37, 6429-6438.	6.5	10
118	The PCNA Interaction Protein Box Sequence in Rad54 Is an Integral Part of Its ATPase Domain and Is Required for Efficient DNA Repair and Recombination. PLoS ONE, 2013, 8, e82630.	1.1	9
119	Functional genomics of the yeast DNA-damage response. Genome Biology, 2006, 7, 233.	13.9	8
120	Transfer of yeast artificial chromosomes into mammalian cells and comparative study of their integrity. Gene, 1995, 163, 27-33.	1.0	7
121	The rad52-Y66A allele alters the choice of donor template during spontaneous chromosomal recombination. DNA Repair, 2010, 9, 23-32.	1.3	7
122	Rif1/2 and Tel1 function in separate pathways during replicative senescence. Cell Cycle, 2011, 10, 3798-3799.	1.3	7
123	Stay Close to Your Sister. Molecular Cell, 2004, 14, 418-420.	4.5	6
124	ScreenTroll: a searchable database to compare genome-wide yeast screens. Database: the Journal of Biological Databases and Curation, 2012, 2012, bas022.	1.4	6
125	The Shu complex regulates Rad52 localization during rDNA repair. DNA Repair, 2013, 12, 786-790.	1.3	6
126	The Ultimate (Mis)match: When DNA Meets RNA. Cells, 2021, 10, 1433.	1.8	5

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127	Visualizing global effects of the DNA damage response. Nature Cell Biology, 2012, 14, 900-901.	4.6	1
128	Gene Targeting and Homologous Recombination in Saccharomyces cerevisiae. Topics in Current Genetics, 2013, , 71-89.	0.7	1
129	The cell biology of mitotic recombination in Saccharomyces cerevisiae. Topics in Current Genetics, 2007, , 317-333.	0.7	1
130	Measuring Chromosome Pairing During Homologous Recombination in Yeast. Methods in Molecular Biology, 2021, 2153, 253-265.	0.4	1
131	The Cell Biology of Mitotic Recombination in Saccharomyces Cerevisiae. , 2006, , 317-333.		0
132	Correction for Fu et al., Phosphorylation-Regulated Transitions in an Oligomeric State Control the Activity of the Sae2 DNA Repair Enzyme. Molecular and Cellular Biology, 2014, 34, 4213-4213.	1.1	0
133	Editorial overview: Recombination — the ends justify the means. Current Opinion in Genetics and Development, 2021, 71, iii-vii.	1.5	0