Penelope A Jeggo

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6453954/publications.pdf

Version: 2024-02-01

145 papers	19,867 citations	11608 70 h-index	10708 138 g-index
147 all docs	147 docs citations	147 times ranked	17097 citing authors

#	Article	IF	Citations
1	ATM and DNA-PK Function Redundantly to Phosphorylate H2AX after Exposure to Ionizing Radiation. Cancer Research, 2004, 64, 2390-2396.	0.4	896
2	Defective DNA-dependent protein kinase activity is linked to V(D)J recombination and DNA repair defects associated with the murine scid mutation. Cell, 1995, 80, 813-823.	13.5	809
3	A Pathway of Double-Strand Break Rejoining Dependent upon ATM, Artemis, and Proteins Locating to Î³-H2AX Foci. Molecular Cell, 2004, 16, 715-724.	4.5	790
4	ATM Signaling Facilitates Repair of DNA Double-Strand Breaks Associated with Heterochromatin. Molecular Cell, 2008, 31, 167-177.	4.5	777
5	A splicing mutation affecting expression of ataxiaâ€“telangiectasia and Rad3â€“related protein (ATR) results in Seckel syndrome. Nature Genetics, 2003, 33, 497-501.	9.4	699
6	DNA repair, genome stability and cancer: a historical perspective. Nature Reviews Cancer, 2016, 16, 35-42.	12.8	575
7	Î³H2AX foci analysis for monitoring DNA double-strand break repair: Strengths, limitations and optimization. Cell Cycle, 2010, 9, 662-669.	1.3	545
8	The role of double-strand break repair â€” insights from human genetics. Nature Reviews Genetics, 2006, 7, 45-54.	7.7	514
9	The impact of a negligent G2/M checkpoint on genomic instability and cancer induction. Nature Reviews Cancer, 2007, 7, 861-869.	12.8	514
10	DNA Ligase IV Mutations Identified in Patients Exhibiting Developmental Delay and Immunodeficiency. Molecular Cell, 2001, 8, 1175-1185.	4.5	497
11	DNA repair is limiting for haematopoietic stem cells during ageing. Nature, 2007, 447, 686-690.	13.7	475
12	DNA Double-Strand Break Repair Pathway Choice Is Directed by Distinct MRE11 Nuclease Activities. Molecular Cell, 2014, 53, 7-18.	4.5	466
13	ATM and Artemis promote homologous recombination of radiation-induced DNA double-strand breaks in G2. EMBO Journal, 2009, 28, 3413-3427.	3.5	457
14	The life and death of DNA-PK. Oncogene, 2005, 24, 949-961.	2.6	400
15	Factors determining DNA double-strand break repair pathway choice in G2 phase. EMBO Journal, 2011, 30, 1079-1092.	3.5	381
16	Chk2 Is a Tumor Suppressor That Regulates Apoptosis in both an Ataxia Telangiectasia Mutated (ATM)-Dependent and an ATM-Independent Manner. Molecular and Cellular Biology, 2002, 22, 6521-6532.	1.1	354
17	A Double-Strand Break Repair Defect in ATM-Deficient Cells Contributes to Radiosensitivity. Cancer Research, 2004, 64, 500-508.	0.4	328
18	ATR-dependent phosphorylation and activation of ATM in response to UV treatment or replication fork stalling. EMBO Journal, 2006, 25, 5775-5782.	3.5	319

#	Article	IF	Citations
19	Targeted Disruption of the Catalytic Subunit of the DNA-PK Gene in Mice Confers Severe Combined Immunodeficiency and Radiosensitivity. Immunity, 1998, 9, 355-366.	6.6	301
20	53BP1-dependent robust localized KAP-1 phosphorylation is essential for heterochromatic DNA double-strand break repair. Nature Cell Biology, 2010, 12, 177-184.	4.6	289
21	DNA-PK autophosphorylation facilitates Artemis endonuclease activity. EMBO Journal, 2006, 25, 3880-3889.	3.5	281
22	Mutations in pericentrin cause Seckel syndrome with defective ATR-dependent DNA damage signaling. Nature Genetics, 2008, 40, 232-236.	9.4	281
23	The influence of heterochromatin on DNA double strand break repair: Getting the strong, silent type to relax. DNA Repair, 2010, 9, 1273-1282.	1.3	269
24	Menage Ã¡ trois: Double strand break repair, V(D)J recombination and DNA-PK. BioEssays, 1995, 17, 949-957.	1.2	237
25	Requirement for PBAF in Transcriptional Repression and Repair at DNA Breaks in Actively Transcribed Regions of Chromatin. Molecular Cell, 2014, 55, 723-732.	4.5	230
26	DNA double-strand breaks: their cellular and clinical impact?. Oncogene, 2007, 26, 7717-7719.	2.6	226
27	Chromosome breakage after G2 checkpoint release. Journal of Cell Biology, 2007, 176, 749-755.	2.3	220
28	KAP-1 phosphorylation regulates CHD3 nucleosome remodeling during the DNA double-strand break response. Nature Structural and Molecular Biology, 2011, 18, 831-839.	3.6	205
29	Mutations in ORC1, encoding the largest subunit of the origin recognition complex, cause microcephalic primordial dwarfism resembling Meier-Gorlin syndrome. Nature Genetics, 2011, 43, 350-355.	9.4	189
30	The Repair and Signaling Responses to DNA Double-Strand Breaks. Advances in Genetics, 2013, 82, 1-45.	0.8	186
31	DNA Double-Strand Break Resection Occurs during Non-homologous End Joining in G1 but Is Distinct from Resection during Homologous Recombination. Molecular Cell, 2017, 65, 671-684.e5.	4.5	184
32	Ionizing radiation biomarkers for potential use in epidemiological studies. Mutation Research - Reviews in Mutation Research, 2012, 751, 258-286.	2.4	181
33	Understanding the limitations of radiation-induced cell cycle checkpoints. Critical Reviews in Biochemistry and Molecular Biology, 2011, 46, 271-283.	2.3	166
34	Studies on mammalian mutants defective in rejoining double-strand breaks in DNA. Mutation Research - Reviews in Genetic Toxicology, 1990, 239, 1-16.	3.0	165
35	Regulation of mitotic entry by microcephalin and its overlap with ATR signalling. Nature Cell Biology, 2006, 8, 725-733.	4.6	164
36	The role of homologous recombination in radiation-induced double-strand break repair. Radiotherapy and Oncology, 2011, 101, 7-12.	0.3	161

#	Article	IF	Citations
37	Nbs1 is required for ATR-dependent phosphorylation events. EMBO Journal, 2005, 24, 199-208.	3.5	160
38	Seckel syndrome exhibits cellular features demonstrating defects in the ATR-signalling pathway. Human Molecular Genetics, 2004, 13, 3127-3138.	1.4	155
39	Splitting the ATM: distinct repair and checkpoint defects in ataxiaâ€“telangiectasia. Trends in Genetics, 1998, 14, 312-316.	2.9	154
40	Cellular radiosensitivity: How much better do we understand it?. International Journal of Radiation Biology, 2009, 85, 1061-1081.	1.0	148
41	Contribution of DNA repair and cell cycle checkpoint arrest to the maintenance of genomic stability. DNA Repair, 2006, 5, 1192-1198.	1.3	138
42	The impact of heterochromatin on DSB repair. Biochemical Society Transactions, 2009, 37, 569-576.	1.6	138
43	The clinical impact of deficiency in DNA non-homologous end-joining. DNA Repair, 2014, 16, 84-96.	1.3	138
44	DNA Double-strand Break Repair in a Cellular Context. Clinical Oncology, 2014, 26, 243-249.	0.6	126
45	PRKDC mutations in a SCID patient with profound neurological abnormalities. Journal of Clinical Investigation, 2013, 123, 2969-2980.	3.9	121
46	Radiation-induced DNA damage responses. Radiation Protection Dosimetry, 2006, 122, 124-127.	0.4	118
47	Sensitization to Radiation and Alkylating Agents by Inhibitors of Poly(ADP-ribose) Polymerase Is Enhanced in Cells Deficient in DNA Double-Strand Break Repair. Molecular Cancer Therapeutics, 2010, 9, 1775-1787.	1.9	118
48	Ionizing radiation biomarkers in epidemiological studies â€“ An update. Mutation Research - Reviews in Mutation Research, 2017, 771, 59-84.	2.4	118
49	Cellular and Biochemical Impact of a Mutation in DNA Ligase IV Conferring Clinical Radiosensitivity. Journal of Biological Chemistry, 2001, 276, 31124-31132.	1.6	116
50	Analysis of DNA ligase IV mutations found in LIG4 syndrome patients: the impact of two linked polymorphisms. Human Molecular Genetics, 2004, 13, 2369-2376.	1.4	114
51	Nbs1 promotes ATM dependent phosphorylation events including those required for G1/S arrest. Oncogene, 2002, 21, 4191-4199.	2.6	113
52	Interaction of the Ku heterodimer with the DNA ligase IV/Xrcc4 complex and its regulation by DNA-PK. DNA Repair, 2007, 6, 712-722.	1.3	112
53	Healing the Wounds Inflicted by Sleeping Beauty Transposition by Double-Strand Break Repair in Mammalian Somatic Cells. Molecular Cell, 2004, 13, 279-290.	4.5	108
54	53BP1 promotes ATM activity through direct interactions with the MRN complex. EMBO Journal, 2010, 29, 574-585.	3.5	105

#	Article	IF	Citations
55	Identification of the First ATRIPâ€“Deficient Patient and Novel Mutations in ATR Define a Clinical Spectrum for ATRâ€“ATRIP Seckel Syndrome. PLoS Genetics, 2012, 8, e1002945.	1.5	104
56	Co-operation of BRCA1 and POH1 relieves the barriers posed by 53BP1 and RAP80 to resection. Nucleic Acids Research, 2013, 41, 10298-10311.	6.5	99
57	XLF-Cernunnos promotes DNA ligase IVâ€“XRCC4 re-adenylation following ligation. Nucleic Acids Research, 2009, 37, 482-492.	6.5	98
58	Role of ATM and the Damage Response Mediator Proteins 53BP1 and MDC1 in the Maintenance of G₂/M Checkpoint Arrest. Molecular and Cellular Biology, 2010, 30, 3371-3383.	1.1	97
59	Phosphoproteomic analysis reveals that PP4 dephosphorylates KAP-1 impacting the DNA damage response. EMBO Journal, 2012, 31, 2403-2415.	3.5	96
60	Artemis links ATM to Double Strand Break Rejoining. Cell Cycle, 2005, 4, 359-362.	1.3	95
61	An Imperfect G₂M Checkpoint Contributes to Chromosome Instability Following Irradiation of S and G₂Phase Cells. Cell Cycle, 2007, 6, 1682-1686.	1.3	93
62	The Heterochromatic Barrier to DNA Double Strand Break Repair: How to Get the Entry Visa. International Journal of Molecular Sciences, 2012, 13, 11844-11860.	1.8	92
63	Polo-like kinase 3 regulates CtIP during DNA double-strand break repair in G1. Journal of Cell Biology, 2014, 206, 877-894.	2.3	92
64	Harmonising the response to DSBs: a new string in the ATM bow. DNA Repair, 2005, 4, 749-759.	1.3	91
65	A Process of Resection-Dependent Nonhomologous End Joining Involving the Goddess Artemis. Trends in Biochemical Sciences, 2017, 42, 690-701.	3.7	86
66	Repression of Transcription at DNA Breaks Requires Cohesin throughout Interphase and Prevents Genome Instability. Molecular Cell, 2019, 73, 212-223.e7.	4.5	83
67	A noncatalytic function of the ligation complex during nonhomologous end joining. Journal of Cell Biology, 2013, 200, 173-186.	2.3	81
68	How cancer cells hijack DNA double-strand break repair pathways to gain genomic instability. Biochemical Journal, 2015, 471, 1-11.	1.7	81
69	Irradiation induced foci (IRIF) as a biomarker for radiosensitivity. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2012, 736, 39-47.	0.4	74
70	Opposing roles for 53BP1 during homologous recombination. Nucleic Acids Research, 2013, 41, 9719-9731.	6.5	74
71	The role of the DNA damage response pathways in brain development and microcephaly: Insight from human disorders. DNA Repair, 2008, 7, 1039-1050.	1.3	73
72	The two edges of the ATM sword: Co-operation between repair and checkpoint functions. Radiotherapy and Oncology, 2005, 76, 112-118.	0.3	72

#	Article	IF	Citations
73	The complexity of DNA double strand breaks is a critical factor enhancing end-resection. DNA Repair, 2013, 12, 936-946.	1.3	71
74	The Limitations of the G1-S Checkpoint. Cancer Research, 2010, 70, 4412-4421.	0.4	70
75	Nomenclature of human genes involved in ionizing radiation sensitivity. Mutation Research DNA Repair, 1995, 337, 131-134.	3.8	69
76	Ku Stimulation of DNA Ligase IV-dependent Ligation Requires Inward Movement along the DNA Molecule. Journal of Biological Chemistry, 2003, 278, 22466-22474.	1.6	69
77	SETDB1, HP1 and SUV39 promote repositioning of 53BP1 to extend resection during homologous recombination in G2 cells. Nucleic Acids Research, 2015, 43, 7931-7944.	6.5	69
78	Cellular and Clinical Impact of Haploinsufficiency for Genes Involved in ATR Signaling. American Journal of Human Genetics, 2007, 81, 77-86.	2.6	68
79	A restatement of the natural science evidence base concerning the health effects of low-level ionizing radiation. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20171070.	1.2	68
80	Visualisation of Î³H2AX Foci Caused by Heavy Ion Particle Traversal; Distinction between Core Track versus Non-Track Damage. PLoS ONE, 2013, 8, e70107.	1.1	68
81	ATM Localization and Heterochromatin Repair Depend on Direct Interaction of the 53BP1-BRCT 2 Domain with Î³H2AX. Cell Reports, 2015, 13, 2081-2089.	2.9	61
82	Roles for 53BP1 in the repair of radiation-induced DNA double strand breaks. DNA Repair, 2020, 93, 102915.	1.3	61
83	Roles of chromatin remodellers in DNA double strand break repair. Experimental Cell Research, 2014, 329, 69-77.	1.2	58
84	Requirement for DNA Ligase IV during Embryonic Neuronal Development. Journal of Neuroscience, 2011, 31, 10088-10100.	1.7	57
85	Deficiency in Origin Licensing Proteins Impairs Cilia Formation: Implications for the Aetiology of Meier-Gorlin Syndrome. PLoS Genetics, 2013, 9, e1003360.	1.5	55
86	The pendulum of the Ku-Ku clock. DNA Repair, 2018, 71, 164-171.	1.3	52
87	Phosphorylation of linker histones by DNA-dependent protein kinase is required for DNA ligase IV-dependent ligation in the presence of histone H1. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 1877-1882.	3.3	49
88	X-irradiation of cells on glass slides has a dose doubling impact. DNA Repair, 2007, 6, 1692-1697.	1.3	47
89	Hazards of human spaceflight. Science, 2019, 364, 127-128.	6.0	46
90	Microcephalin: A Causal Link Between Impaired Damage Response Signalling and Microcephaly. Cell Cycle, 2006, 5, 2339-2344.	1.3	44

#	Article	IF	Citations
91	XRCC4 deficiency in human subjects causes a marked neurological phenotype but no overt immunodeficiency. Journal of Allergy and Clinical Immunology, 2015, 136, 1007-1017.	1.5	44
92	ASPM influences DNA double-strand break repair and represents a potential target for radiotherapy. International Journal of Radiation Biology, 2011, 87, 1189-1195.	1.0	42
93	Regulation of programmed deathâ€ligand 1 expression in response to <scp>DNA</scp> damage in cancer cells: Implications for precision medicine. Cancer Science, 2019, 110, 3415-3423.	1.7	42
94	The Greek Goddess, Artemis, reveals the secrets of her cleavage. DNA Repair, 2002, 1, 771-777.	1.3	41
95	Statistical analysis of kinetics, distribution and co-localisation of DNA repair foci in irradiated cells: Cell cycle effect and implications for prediction of radiosensitivity. DNA Repair, 2013, 12, 844-855.	1.3	40
96	The many faces of Artemis-deficient combined immunodeficiency â€" Two patients with DCLRE1C mutations and a systematic literature review of genotypeâ€"phenotype correlation. Clinical Immunology, 2013, 149, 464-474.	1.4	39
97	Diminished Origin-Licensing Capacity Specifically Sensitizes Tumor Cells to Replication Stress. Molecular Cancer Research, 2013, 11, 370-380.	1.5	38
98	ATMâ€™s Role in the Repair of DNA Double-Strand Breaks. Genes, 2021, 12, 1370.	1.0	38
99	A coordinated DNA damage response promotes adult quiescent neural stem cell activation. PLoS Biology, 2017, 15, e2001264.	2.6	36
100	Radiation-induced delayed cell death in a hypomorphic Artemis cell line. Human Molecular Genetics, 2006, 15, 1303-1311.	1.4	35
101	The Role of the DNA Damage Response Mechanisms after Low-Dose Radiation Exposure and a Consideration of Potentially Sensitive Individuals. Radiation Research, 2010, 174, 825-832.	0.7	35
102	Increased apoptosis and DNA double-strand breaks in the embryonic mouse brain in response to very low-dose X-rays but not 50 Hz magnetic fields. Journal of the Royal Society Interface, 2014, 11, 20140783.	1.5	35
103	Establishing mechanisms affecting the individual response to ionizing radiation. International Journal of Radiation Biology, 2020, 96, 297-323.	1.0	34
104	Replication independent ATR signalling leads to G2/M arrest requiring Nbs1, 53BP1 and MDC1. Human Molecular Genetics, 2008, 17, 3247-3253.	1.4	33
105	An Artemis polymorphic variant reduces Artemis activity and confers cellular radiosensitivity. DNA Repair, 2010, 9, 1003-1010.	1.3	33
106	DNA double-strand break repair within heterochromatic regions. Biochemical Society Transactions, 2012, 40, 173-178.	1.6	33
107	Impaired lymphocyte development and antibody class switching and increased malignancy in a murine model of DNA ligase IV syndrome. Journal of Clinical Investigation, 2009, 119, 1696-1705.	3.9	33
108	Analysis of Human Syndromes with Disordered Chromatin Reveals the Impact of Heterochromatin on the Efficacy of ATM-Dependent G₂/M Checkpoint Arrest. Molecular and Cellular Biology, 2011, 31, 4022-4035.	1.1	32

#	Article	IF	Citations
109	A historical reflection on our understanding of radiation-induced DNA double strand break repair in somatic mammalian cells; interfacing the past with the present. International Journal of Radiation Biology, 2019, 95, 945-956.	1.0	31
110	Resting cells rely on the DNA helicase component MCM2 to build cilia. Nucleic Acids Research, 2019, 47, 134-151.	6.5	29
111	Immunological disorders and DNA repair. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2002, 509, 109-126.	0.4	25
112	Translesion DNA synthesis-assisted non-homologous end-joining of complex double-strand breaks prevents loss of DNA sequences in mammalian cells. Nucleic Acids Research, 2009, 37, 6737-6745.	6.5	25
113	Novel function of HATs and HDACs in homologous recombination through acetylation of human RAD52 at double-strand break sites. PLoS Genetics, 2018, 14, e1007277.	1.5	25
114	Endogenous and X-ray-induced DNA double strand breaks sensitively activate apoptosis in adult neural stem cells. Journal of Cell Science, 2015, 128, 3597-606.	1.2	24
115	ATR promotes cilia signalling: links to developmental impacts. Human Molecular Genetics, 2016, 25, 1574-1587.	1.4	24
116	Canonical DNA non-homologous end-joining; capacity versus fidelity. British Journal of Radiology, 2020, 93, 20190966.	1.0	24
117	RISKS FROM LOW DOSE/DOSE RATE RADIATION: WHAT AN UNDERSTANDING OF DNA DAMAGE RESPONSE MECHANISMS CAN TELL US. Health Physics, 2009, 97, 416-425.	0.3	23
118	The Antiresection Activity of the X Protein Encoded by Hepatitis Virus B. Hepatology, 2019, 69, 2546-2561.	3.6	20
119	Identification of a novel motif in DNA ligases exemplified by DNA ligase IV. DNA Repair, 2006, 5, 788-798.	1.3	19
120	In vivosensitivity of the embryonic and adult neural stem cell compartments to low-dose radiation. Journal of Radiation Research, 2016, 57, i2-i10.	0.8	18
121	Chromatin modifiers and remodellers in DNA repair and signalling. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160279.	1.8	18
122	DNA double-strand break end resection: a critical relay point for determining the pathway of repair and signaling. Genome Instability & Disease, 2020, 1, 155-171.	0.5	18
123	Roles for the DNA-PK complex and 53BP1 in protecting ends from resection during DNA double-strand break repair. Journal of Radiation Research, 2020, 61, 718-726.	0.8	17
124	AHNAK interacts with the DNA ligase IVâ€“XRCC4 complex and stimulates DNA ligase IV-mediated double-stranded ligation. DNA Repair, 2004, 3, 245-256.	1.3	16
125	Evaluation of Severe Combined Immunodeficiency and Combined Immunodeficiency Pediatric Patients on the Basis of Cellular Radiosensitivity. Journal of Molecular Diagnostics, 2015, 17, 560-575.	1.2	16
126	Brief report: A human induced pluripotent stem cell model of cernunnos deficiency reveals an important role for XLF in the survival of the primitive hematopoietic progenitors. Stem Cells, 2013, 31, 2015-2023.	1.4	15

#	Article	IF	Citations
127	Distinct response of adult neural stem cells to low versus high dose ionising radiation. DNA Repair, 2019, 76, 70-75.	1.3	15
128	Immune diversity and genomic stability: opposite goals but similar paths. Journal of Photochemistry and Photobiology B: Biology, 2001, 65, 88-96.	1.7	14
129	The PBAF chromatin remodeling complex represses transcription and promotes rapid repair at DNA double-strand breaks. Molecular and Cellular Oncology, 2015, 2, e970072.	0.3	13
130	Analysis of cilia dysfunction phenotypes in zebrafish embryos depleted of Origin recognition complex factors. European Journal of Human Genetics, 2019, 27, 772-782.	1.4	12
131	Reprint of â€œThe clinical impact of deficiency in DNA non-homologous end-joiningâ€: DNA Repair, 2014, 17, 9-20.	1.3	11
132	TP53 modulates radiotherapy fraction size sensitivity in normal and malignant cells. Scientific Reports, 2021, 11, 7119.	1.6	11
133	The rate of X-ray-induced DNA double-strand break repair in the embryonic mouse brain is unaffected by exposure to 50 Hz magnetic fields. International Journal of Radiation Biology, 2015, 91, 495-499.	1.0	9
134	'A mover and a shaker': 53BP1 allows DNA doublestrand breaks a chance to dance and unite. F1000 Biology Reports, 2009, 1, 21.	4.0	7
135	Genomic Instability in Cancer Development. , 2005, 570, 175-197.		6
136	DNA non-homologous end-joining enters the resection arena. Oncotarget, 2017, 8, 93317-93318.	0.8	5
137	A break is not the End; insight into the damage response to DNA double strand breaks. DNA Repair, 2010, 9, 1217-1218.	1.3	4
138	Haematopoietic Stem Cell Transplantation for DNA Ligase 1 Deficiency. Journal of Clinical Immunology, 2021, 41, 238-242.	2.0	2
139	Robin Holliday 1932â€“2014. Nature Structural and Molecular Biology, 2014, 21, 501-502.	3.6	1
140	Advances in Radiation Biology â€“ Highlights from the 16th ICRR special feature: introductory editorial. British Journal of Radiology, 2020, 93, 20209006.	1.0	1
141	ATM: Its Recruitment, Activation, Signalling and Contribution to Tumour Suppression. Cancer Drug Discovery and Development, 2018, , 129-154.	0.2	0
142	Cutting-edge perspectives in genomic maintenance V11. DNA Repair, 2021, 97, 103004.	1.3	0
143	Checkpoint Control Following Radiation Exposure. , 2011, , 53-77.		0
144	Low levels of endogenous or X-ray-induced DNA double-strand breaks activate apoptosis in adult neural stem cells. Development (Cambridge), 2015, 142, e1.2-e1.2.	1.2	0

#	Article	IF	Citations
145	Editorial for special issue â€˜women in radiobiologyâ€™. International Journal of Radiation Biology, 2022, , 1-1.	1.0	0