Maria A Blasco

List of Publications by Citations

282 papers	43,089 citations	98 h-index	205 g-index
294 ext. papers	49,138 ext. citations	12.6 avg, IF	7.7 L-index

#	Paper	IF	Citations
282	The hallmarks of aging. *Cell*, **2013**, 153, 1194-217	56.2	7165
281	Telomere shortening and tumor formation by mouse cells lacking telomerase RNA. *Cell*, **1997**, 91, 25-34	56.2	1779
280	Cellular senescence in cancer and aging. *Cell*, **2007**, 130, 223-33	56.2	1245
279	Telomeres and human disease: ageing, cancer and beyond. *Nature Reviews Genetics*, **2005**, 6, 611-22	30.1	1178
278	Longevity, stress response, and cancer in aging telomerase-deficient mice. *Cell*, **1999**, 96, 701-12	56.2	1144
277	Essential role of mouse telomerase in highly proliferative organs. *Nature*, **1998**, 392, 569-74	50.4	1062
276	Personal omics profiling reveals dynamic molecular and medical phenotypes. *Cell*, **2012**, 148, 1293-307	56.2	921
275	A p53-mediated DNA damage response limits reprogramming to ensure iPS cell genomic integrity. *Nature*, **2009**, 460, 1149-53	50.4	842
274	The Ink4/Arf locus is a barrier for iPS cell reprogramming. *Nature*, **2009**, 460, 1136-9	50.4	794
273	The common biology of cancer and ageing. *Nature*, **2007**, 448, 767-74	50.4	781
272	Developmentally regulated transcription of mammalian telomeres by DNA-dependent RNA polymerase II. *Nature Cell Biology*, **2008**, 10, 228-36	23.4	582
271	The epigenetic regulation of mammalian telomeres. *Nature Reviews Genetics*, **2007**, 8, 299-309	30.1	528
270	Telomere length, stem cells and aging. *Nature Chemical Biology*, **2007**, 3, 640-9	11.7	524
269	Isolation and in vitro expansion of human colonic stem cells. *Nature Medicine*, **2011**, 17, 1225-7	50.5	492
268	Secondary structure of vertebrate telomerase RNA. *Cell*, **2000**, 100, 503-14	56.2	486
267	DNA methyltransferases control telomere length and telomere recombination in mammalian cells. *Nature Cell Biology*, **2006**, 8, 416-24	23.4	471
266	Epigenetic regulation of telomere length in mammalian cells by the Suv39h1 and Suv39h2 histone methyltransferases. *Nature Genetics*, **2004**, 36, 94-9	36.3	445

265	"Super p53" mice exhibit enhanced DNA damage response, are tumor resistant and age normally. *EMBO Journal*, **2002**, 21, 6225-35	13	431
264	Delayed ageing through damage protection by the Arf/p53 pathway. *Nature*, **2007**, 448, 375-9	50.4	395
263	Hepatocyte telomere shortening and senescence are general markers of human liver cirrhosis. *FASEB Journal*, **2002**, 16, 935-42	0.9	385
262	Telomeres acquire embryonic stem cell characteristics in induced pluripotent stem cells. *Cell Stem Cell*, **2009**, 4, 141-54	18	384
261	Telomeric and extra-telomeric roles for telomerase and the telomere-binding proteins. *Nature Reviews Cancer*, **2011**, 11, 161-76	31.3	366
260	Disease states associated with telomerase deficiency appear earlier in mice with short telomeres. *EMBO Journal*, **1999**, 18, 2950-60	13	357
259	Effects of telomerase and telomere length on epidermal stem cell behavior. *Science*, **2005**, 309, 1253-6	33.3	353
258	Telomerase reverse transcriptase delays aging in cancer-resistant mice. *Cell*, **2008**, 135, 609-22	56.2	339
257	A subpopulation of adult skeletal muscle stem cells retains all template DNA strands after cell division. *Cell*, **2012**, 148, 112-25	56.2	327
256	Tissue damage and senescence provide critical signals for cellular reprogramming in vivo. *Science*, **2016**, 354,	33.3	321
255	Functional characterization and developmental regulation of mouse telomerase RNA. *Science*, **1995** , 269, 1267-70	33.3	318
254	Telomerase-deficient mice with short telomeres are resistant to skin tumorigenesis. *Nature Genetics*, **2000**, 26, 114-7	36.3	288
253	Telomere length dynamics and chromosomal instability in cells derived from telomerase null mice. *Journal of Cell Biology*, **1999**, 144, 589-601	7.3	283
252	A mammalian microRNA cluster controls DNA methylation and telomere recombination via Rbl2-dependent regulation of DNA methyltransferases. *Nature Structural and Molecular Biology*, **2008**, 15, 268-79	17.6	281
251	Telomere length regulates the epigenetic status of mammalian telomeres and subtelomeres. *Nature Genetics*, **2007**, 39, 243-50	36.3	279
250	Role of the RB1 family in stabilizing histone methylation at constitutive heterochromatin. *Nature Cell Biology*, **2005**, 7, 420-8	23.4	279
249	Increased telomere fragility and fusions resulting from TRF1 deficiency lead to degenerative pathologies and increased cancer in mice. *Genes and Development*, **2009**, 23, 2060-75	12.6	275
248	Increased epidermal tumors and increased skin wound healing in transgenic mice overexpressing the catalytic subunit of telomerase, mTERT, in basal keratinocytes. *EMBO Journal*, **2001**, 20, 2619-30	13	275

247	Telomerase gene therapy in adult and old mice delays aging and increases longevity without increasing cancer. *EMBO Molecular Medicine*, **2012**, 4, 691-704	12	274
246	Telomere lengthening early in development. *Nature Cell Biology*, **2007**, 9, 1436-41	23.4	271
245	Mammalian Ku86 protein prevents telomeric fusions independently of the length of TTAGGG repeats and the G-strand overhang. *EMBO Reports*, **2000**, 1, 244-52	6.5	270
244	The longest telomeres: a general signature of adult stem cell compartments. *Genes and Development*, **2008**, 22, 654-67	12.6	261
243	Differential regulation of telomerase activity and telomerase RNA during multi-stage tumorigenesis. *Nature Genetics*, **1996**, 12, 200-4	36.3	252
242	High-throughput telomere length quantification by FISH and its application to human population studies. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 5300-5	11.5	231
241	Restoration of telomerase activity rescues chromosomal instability and premature aging in Terc-/- mice with short telomeres. *EMBO Reports*, **2001**, 2, 800-7	6.5	225
240	A general structure for DNA-dependent DNA polymerases. *Gene*, **1991**, 100, 27-38	3.8	219
239	Ablation of telomerase and telomere loss leads to cardiac dilatation and heart failure associated with p53 upregulation. *EMBO Journal*, **2003**, 22, 131-9	13	214
238	Suv4-20h deficiency results in telomere elongation and derepression of telomere recombination. *Journal of Cell Biology*, **2007**, 178, 925-36	7.3	207
237	POT1 mutations cause telomere dysfunction in chronic lymphocytic leukemia. *Nature Genetics*, **2013**, 45, 526-30	36.3	199
236	Global chromatin compaction limits the strength of the DNA damage response. *Journal of Cell Biology*, **2007**, 178, 1101-8	7.3	197
235	The telomerase activator TA-65 elongates short telomeres and increases health span of adult/old mice without increasing cancer incidence. *Aging Cell*, **2011**, 10, 604-21	9.9	191
234	SIRT1 contributes to telomere maintenance and augments global homologous recombination. *Journal of Cell Biology*, **2010**, 191, 1299-313	7.3	190
233	Short telomeres result in organismal hypersensitivity to ionizing radiation in mammals. *Journal of Experimental Medicine*, **2000**, 192, 1625-36	16.6	188
232	Telomere maintenance requires the RAD51D recombination/repair protein. *Cell*, **2004**, 117, 337-47	56.2	186
231	Mammalian Rap1 controls telomere function and gene expression through binding to telomeric and extratelomeric sites. *Nature Cell Biology*, **2010**, 12, 768-80	23.4	184
230	XPF nuclease-dependent telomere loss and increased DNA damage in mice overexpressing TRF2 result in premature aging and cancer. *Nature Genetics*, **2005**, 37, 1063-71	36.3	184

229	Telomere damage induced by the G-quadruplex ligand RHPS4 has an antitumor effect. *Journal of Clinical Investigation*, **2007**, 117, 3236-47	15.9	181
228	A G-quadruplex ligand with 10000-fold selectivity over duplex DNA. *Journal of the American Chemical Society*, **2007**, 129, 1502-3	16.4	176
227	Expression of mouse telomerase catalytic subunit in embryos and adult tissues. *Proceedings of the National Academy of Sciences of the United States of America*, **1998**, 95, 10471-6	11.5	174
226	Telomerase regulation and stem cell behaviour. *Current Opinion in Cell Biology*, **2006**, 18, 254-60	9	171
225	The absence of the dna-dependent protein kinase catalytic subunit in mice results in anaphase bridges and in increased telomeric fusions with normal telomere length and G-strand overhang. *Molecular and Cellular Biology*, **2001**, 21, 3642-51	4.8	168
224	Mammalian Ku86 mediates chromosomal fusions and apoptosis caused by critically short telomeres. *EMBO Journal*, **2002**, 21, 2207-19	13	166
223	A Shigher orderSof telomere regulation: telomere heterochromatin and telomeric RNAs. *EMBO Journal*, **2009**, 28, 2323-36	13	163
222	Cancer and ageing: convergent and divergent mechanisms. *Nature Reviews Molecular Cell Biology*, **2007**, 8, 715-22	48.7	156
221	Functional interaction between poly(ADP-Ribose) polymerase 2 (PARP-2) and TRF2: PARP activity negatively regulates TRF2. *Molecular and Cellular Biology*, **2004**, 24, 1595-607	4.8	154
220	MARK-AGE biomarkers of ageing. *Mechanisms of Ageing and Development*, **2015**, 151, 2-12	5.6	145
219	Nuclear envelope defects cause stem cell dysfunction in premature-aging mice. *Journal of Cell Biology*, **2008**, 181, 27-35	7.3	145
218	Telomerase beyond telomeres. *Nature Reviews Cancer*, **2002**, 2, 627-33	31.3	142
217	Oxidative stress contributes to arsenic-induced telomere attrition, chromosome instability, and apoptosis. *Journal of Biological Chemistry*, **2003**, 278, 31998-2004	5.4	141
216	A GRFa2/Prop1/stem (GPS) cell niche in the pituitary. *PLoS ONE*, **2009**, 4, e4815	3.7	140
215	Transformation of normal human cells in the absence of telomerase activation. *Cancer Cell*, **2002**, 2, 401-13	24.3	137
214	Telomere-driven diseases and telomere-targeting therapies. *Journal of Cell Biology*, **2017**, 216, 875-887	7.3	136
213	Identification of novel pathways involved in the pathogenesis of human adamantinomatous craniopharyngioma. *Acta Neuropathologica*, **2012**, 124, 259-71	14.3	133
212	Telomerase at the intersection of cancer and aging. *Trends in Genetics*, **2013**, 29, 513-20	8.5	132

211	Telomeres in cancer and ageing. *Philosophical Transactions of the Royal Society B: Biological Sciences* , **2011**, 366, 76-84	5.8	132
210	Telomere shortening rate predicts species life span. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 15122-15127	11.5	130
209	Telomere shortening in neural stem cells disrupts neuronal differentiation and neuritogenesis. *Journal of Neuroscience*, **2009**, 29, 14394-407	6.6	129
208	Telomere shortening impairs organ regeneration by inhibiting cell cycle re-entry of a subpopulation of cells. *EMBO Journal*, **2003**, 22, 4003-13	13	127
207	Long-term repopulating ability of telomerase-deficient murine hematopoietic stem cells. *Blood*, **2002**, 99, 2767-75	2.2	127
206	Mice with Pulmonary Fibrosis Driven by Telomere Dysfunction. *Cell Reports*, **2015**, 12, 286-99	10.6	126
205	Assessing cell and organ senescence biomarkers. *Circulation Research*, **2012**, 111, 97-109	15.7	122
204	Irregular telomeres impair meiotic synapsis and recombination in mice. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 6496-501	11.5	122
203	Cohesin-SA1 deficiency drives aneuploidy and tumourigenesis in mice due to impaired replication of telomeres. *EMBO Journal*, **2012**, 31, 2076-89	13	121
202	BRCA2 acts as a RAD51 loader to facilitate telomere replication and capping. *Nature Structural and Molecular Biology*, **2010**, 17, 1461-9	17.6	119
201	An essential role for functional telomeres in mouse germ cells during fertilization and early development. *Developmental Biology*, **2002**, 249, 74-84	3.1	119
200	Telomere shortening and chromosomal instability abrogates proliferation of adult but not embryonic neural stem cells. *Development (Cambridge)*, **2004**, 131, 4059-70	6.6	118
199	Impaired germinal center reaction in mice with short telomeres. *EMBO Journal*, **2000**, 19, 472-81	13	118
198	Mice with bad ends: mouse models for the study of telomeres and telomerase in cancer and aging. *EMBO Journal*, **2005**, 24, 1095-103	13	113
197	Telomere shortening in mTR-/- embryos is associated with failure to close the neural tube. *EMBO Journal*, **1999**, 18, 1172-81	13	112
196	The rate of increase of short telomeres predicts longevity in mammals. *Cell Reports*, **2012**, 2, 732-7	10.6	111
195	Telomerase deficiency impairs differentiation of mesenchymal stem cells. *Experimental Cell Research*, **2004**, 294, 1-8	4.2	110
194	Evolving views of telomerase and cancer. *Trends in Cell Biology*, **2003**, 13, 289-94	18.3	106

193	Porphyrin derivatives for telomere binding and telomerase inhibition. *ChemBioChem*, **2005**, 6, 123-32	3.8	106
192	Centromere mitotic recombination in mammalian cells. *Journal of Cell Biology*, **2008**, 181, 885-92	7.3	105
191	Functional interaction between DNA-PKcs and telomerase in telomere length maintenance. *EMBO Journal*, **2002**, 21, 6275-87	13	105
190	Role of shelterin in cancer and aging. *Aging Cell*, **2010**, 9, 653-66	9.9	102
189	TPP1 is required for TERT recruitment, telomere elongation during nuclear reprogramming, and normal skin development in mice. *Developmental Cell*, **2010**, 18, 775-89	10.2	102
188	The role of telomeres and telomerase in stem cell aging. *FEBS Letters*, **2010**, 584, 3826-30	3.8	102
187	TERRA transcripts are bound by a complex array of RNA-binding proteins. *Nature Communications*, **2010**, 1, 33	17.4	101
186	Telomerase abrogation dramatically accelerates TRF2-induced epithelial carcinogenesis. *Genes and Development*, **2007**, 21, 206-20	12.6	101
185	Shorter telomeres, accelerated ageing and increased lymphoma in DNA-PKcs-deficient mice. *EMBO Reports*, **2004**, 5, 503-9	6.5	101
184	The load of short telomeres is increased and associated with lifetime number of depressive episodes in bipolar II disorder. *Journal of Affective Disorders*, **2011**, 135, 43-50	6.6	98
183	A role for the Rb family of proteins in controlling telomere length. *Nature Genetics*, **2002**, 32, 415-9	36.3	97
182	Epigenetic regulation of telomeres in human cancer. *Oncogene*, **2008**, 27, 6817-33	9.2	95
181	Role of Rb family in the epigenetic definition of chromatin. *Cell Cycle*, **2005**, 4, 752-5	4.7	95
180	Increased p53 activity does not accelerate telomere-driven ageing. *EMBO Reports*, **2006**, 7, 546-52	6.5	95
179	Replicating through telomeres: a means to an end. *Trends in Biochemical Sciences*, **2015**, 40, 504-15	10.3	91
178	Telomerase expression confers cardioprotection in the adult mouse heart after acute myocardial infarction. *Nature Communications*, **2014**, 5, 5863	17.4	91
177	Telomere length predicts embryo fragmentation after in vitro fertilization in women--toward a telomere theory of reproductive aging in women. *American Journal of Obstetrics and Gynecology*, **2005**, 192, 1256-60; discussion 1260-1	6.4	91
176	Many ways to telomere dysfunction: in vivo studies using mouse models. *Oncogene*, **2002**, 21, 584-91	9.2	90

175	The RNA subunit of telomerase is encoded by Marek's disease virus. *Journal of Virology*, **2003**, 77, 5985-5966	5.4	88
174	A mammalian microRNA cluster controls DNA methylation and telomere recombination via Rbl2-dependent regulation of DNA methyltransferases. *Nature Structural and Molecular Biology*, **2008**, 15, 998	17.6	87
173	A mutation in the POT1 gene is responsible for cardiac angiosarcoma in TP53-negative Li-Fraumeni-like families. *Nature Communications*, **2015**, 6, 8383	17.4	86
172	p53 isoforms regulate aging- and tumor-associated replicative senescence in T lymphocytes. *Journal of Clinical Investigation*, **2013**, 123, 5247-57	15.9	85
171	Mice deficient in telomerase activity develop hypertension because of an excess of endothelin production. *Circulation*, **2006**, 114, 309-17	16.7	83
170	Impact of telomerase ablation on organismal viability, aging, and tumorigenesis in mice lacking the DNA repair proteins PARP-1, Ku86, or DNA-PKcs. *Journal of Cell Biology*, **2004**, 167, 627-38	7.3	83
169	Constitutive expression of tert in thymocytes leads to increased incidence and dissemination of T-cell lymphoma in Lck-Tert mice. *Molecular and Cellular Biology*, **2004**, 24, 4275-93	4.8	82
168	Mammalian telomeres and telomerase: why they matter for cancer and aging. *European Journal of Cell Biology*, **2003**, 82, 441-6	6.1	80
167	Antagonistic effects of telomerase on cancer and aging in K5-mTert transgenic mice. *Oncogene*, **2005**, 24, 2256-70	9.2	80
166	Cooperation between p53 mutation and high telomerase transgenic expression in spontaneous cancer development. *Molecular and Cellular Biology*, **2002**, 22, 7291-301	4.8	80
165	F19. TELOMERE SHORTENING IN YOUNG PEOPLE WITH FIRST EPISODE PSYCHOSIS: A 12-MONTH FOLLOW-UP STUDY. *Schizophrenia Bulletin*, **2018**, 44, S226-S226	1.3	78
164	T24. CHANGES IN TELOMERE LENGTH IN YOUNG PEOPLE WITH FIRST EPISODE PSYCHOSIS: A 12-MONTHS FOLLOW-UP STUDY. *Schizophrenia Bulletin*, **2020**, 46, S240-S240	1.3	78
163	RAP1 protects from obesity through its extratelomeric role regulating gene expression. *Cell Reports*, **2013**, 3, 2059-74	10.6	77
162	Genome-wide CTCF distribution in vertebrates defines equivalent sites that aid the identification of disease-associated genes. *Nature Structural and Molecular Biology*, **2011**, 18, 708-14	17.6	77
161	Long-term molecular and cellular stability of human neural stem cell lines. *Experimental Cell Research*, **2004**, 294, 559-70	4.2	77
160	Normal telomere length and chromosomal end capping in poly(ADP-ribose) polymerase-deficient mice and primary cells despite increased chromosomal instability. *Journal of Cell Biology*, **2001**, 154, 49-60	7.3	77
159	Massive telomere loss is an early event of DNA damage-induced apoptosis. *Journal of Biological Chemistry*, **2003**, 278, 836-42	5.4	76
158	Haploinsufficiency for BRCA1 leads to cell-type-specific genomic instability and premature senescence. *Nature Communications*, **2015**, 6, 7505	17.4	74

157	Beyond average: potential for measurement of short telomeres. *Aging*, **2012**, 4, 379-92	5.6	74
156	Spreading of mammalian DNA-damage response factors studied by ChIP-chip at damaged telomeres. *EMBO Journal*, **2007**, 26, 2707-18	13	73
155	Epigenetic silencing of Oct4 by a complex containing SUV39H1 and Oct4 pseudogene lncRNA. *Nature Communications*, **2015**, 6, 7631	17.4	72
154	Requirement of functional telomeres for metaphase chromosome alignments and integrity of meiotic spindles. *EMBO Reports*, **2002**, 3, 230-4	6.5	72
153	Role of mammalian Rad54 in telomere length maintenance. *Molecular and Cellular Biology*, **2003**, 23, 5572-80	4.8	70
152	TRF1 controls telomere length and mitotic fidelity in epithelial homeostasis. *Molecular and Cellular Biology*, **2009**, 29, 1608-25	4.8	68
151	Breaks at telomeres and TRF2-independent end fusions in Fanconi anemia. *Human Molecular Genetics*, **2002**, 11, 439-44	5.6	68
150	TERRA recruitment of polycomb to telomeres is essential for histone trymethylation marks at telomeric heterochromatin. *Nature Communications*, **2018**, 9, 1548	17.4	67
149	Identification of TERRA locus unveils a telomere protection role through association to nearly all chromosomes. *Nature Communications*, **2014**, 5, 4723	17.4	66
148	Chromatin regulation and non-coding RNAs at mammalian telomeres. *Seminars in Cell and Developmental Biology*, **2010**, 21, 186-93	7.5	66
147	Limiting replication stress during somatic cell reprogramming reduces genomic instability in induced pluripotent stem cells. *Nature Communications*, **2015**, 6, 8036	17.4	65
146	Telomeric RNAs are essential to maintain telomeres. *Nature Communications*, **2016**, 7, 12534	17.4	65
145	Telomerase reverse transcriptase synergizes with calorie restriction to increase health span and extend mouse longevity. *PLoS ONE*, **2013**, 8, e53760	3.7	65
144	Genetic inactivation of Cdk7 leads to cell cycle arrest and induces premature aging due to adult stem cell exhaustion. *EMBO Journal*, **2012**, 31, 2498-510	13	64
143	Short telomeres protect from diet-induced atherosclerosis in apolipoprotein E-null mice. *FASEB Journal*, **2004**, 18, 418-20	0.9	63
142	Mice with hyper-long telomeres show less metabolic aging and longer lifespans. *Nature Communications*, **2019**, 10, 4723	17.4	62
141	Localization-dependent and -independent roles of SLX4 in regulating telomeres. *Cell Reports*, **2013**, 4, 853-60	10.6	62
140	Decreased B16F10 melanoma growth and impaired vascularization in telomerase-deficient mice with critically short telomeres. *Cancer Research*, **2002**, 62, 552-9	10.1	60

139	Different telomere-length dynamics at the inner cell mass versus established embryonic stem (ES) cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 15207-12	11.5	59
138	The telomerase RNA component Terc is required for the tumour-promoting effects of Tert overexpression. *EMBO Reports*, **2005**, 6, 268-74	6.5	59
137	Identification of functional domains and dominant negative mutations in vertebrate telomerase RNA using an in vivo reconstitution system. *Journal of Biological Chemistry*, **2001**, 276, 5856-65	5.4	57
136	A p53-dependent response limits epidermal stem cell functionality and organismal size in mice with short telomeres. *PLoS ONE*, **2009**, 4, e4934	3.7	57
135	Telomere shortening and oxidative stress in aged macrophages results in impaired STAT5a phosphorylation. *Journal of Immunology*, **2009**, 183, 2356-64	5.3	56
134	53BP1 Enforces Distinct Pre- and Post-resection Blocks on Homologous Recombination. *Molecular Cell*, **2020**, 77, 26-38.e7	17.6	56
133	Shortened telomeres join to DNA breaks interfering with their correct repair. *Experimental Cell Research*, **2003**, 287, 282-8	4.2	55
132	A metabolic signature predicts biological age in mice. *Aging Cell*, **2013**, 12, 93-101	9.9	54
131	SIRT1 is necessary for proficient telomere elongation and genomic stability of induced pluripotent stem cells. *Stem Cell Reports*, **2014**, 2, 690-706	8	53
130	Conditional TRF1 knockout in the hematopoietic compartment leads to bone marrow failure and recapitulates clinical features of dyskeratosis congenita. *Blood*, **2012**, 120, 2990-3000	2.2	53
129	Expression of mTert in primary murine cells links the growth-promoting effects of telomerase to transforming growth factor-beta signaling. *Oncogene*, **2006**, 25, 4310-9	9.2	53
128	Stem and progenitor cell division kinetics during postnatal mouse mammary gland development. *Nature Communications*, **2015**, 6, 8487	17.4	51
127	ATR suppresses telomere fragility and recombination but is dispensable for elongation of short telomeres by telomerase. *Journal of Cell Biology*, **2010**, 188, 639-52	7.3	51
126	Telomeres and telomerase in Alzheimer's disease: epiphenomena or a new focus for therapeutic strategy?. *Alzheimerls and Dementia*, **2006**, 2, 164-8	1.2	51
125	Telomeres and telomerase as therapeutic targets to prevent and treat age-related diseases. *F1000Research*, **2016**, 5,	3.6	51
124	Therapeutic effects of telomerase in mice with pulmonary fibrosis induced by damage to the lungs and short telomeres. *ELife*, **2018**, 7,	8.9	51
123	TRF1 is a stem cell marker and is essential for the generation of induced pluripotent stem cells. *Nature Communications*, **2013**, 4, 1946	17.4	50
122	Telomere rejuvenation during nuclear reprogramming. *Current Opinion in Genetics and Development* , **2010**, 20, 190-6	4.9	50

121	Role of the TRF2 telomeric protein in cancer and ageing. *Cell Cycle*, **2006**, 5, 718-21	4.7	49
120	Telomerase reverses epidermal hair follicle stem cell defects and loss of long-term survival associated with critically short telomeres. *Journal of Cell Biology*, **2007**, 179, 277-90	7.3	49
119	Telomeres and cancer: a tale with many endings. *Current Opinion in Genetics and Development*, **2003**, 13, 70-6	4.9	49
118	Therapeutic effect of androgen therapy in a mouse model of aplastic anemia produced by short telomeres. *Haematologica*, **2015**, 100, 1267-74	6.6	48
117	Novel roles for telomerase in aging. *Mechanisms of Ageing and Development*, **2006**, 127, 579-83	5.6	47
116	Role of human Ku86 in telomere length maintenance and telomere capping. *Cancer Research*, **2004**, 64, 7271-8	10.1	46
115	Porphyrin-aminoquinoline conjugates as telomerase inhibitors. *Organic and Biomolecular Chemistry*, **2003**, 1, 921-7	3.9	46
114	Short Telomere Load, Telomere Length, and Subclinical Atherosclerosis: The PESA´Study. *Journal of the American College of Cardiology*, **2016**, 67, 2467-76	15.1	44
113	Phi 29 DNA polymerase active site. Mutants in conserved residues Tyr254 and Tyr390 are affected in dNTP binding. *Journal of Biological Chemistry*, **1992**, 267, 19427-34	5.4	43
112	Phi 29 DNA polymerase active site. The conserved amino acid motif "Kx3NSxYG" is involved in template-primer binding and dNTP selection. *Journal of Biological Chemistry*, **1993**, 268, 16763-70	5.4	41
111	Genomic instability in iPS: time for a break. *EMBO Journal*, **2011**, 30, 991-3	13	40
110	Telomerase gene therapy rescues telomere length, bone marrow aplasia, and survival in mice with aplastic anemia. *Blood*, **2016**, 127, 1770-9	2.2	39
109	Role of TRF2 in the assembly of telomeric chromatin. *Cell Cycle*, **2008**, 7, 3461-8	4.7	39
108	Therapeutic inhibition of TRF1 impairs the growth of p53-deficient K-RasG12V-induced lung cancer by induction of telomeric DNA damage. *EMBO Molecular Medicine*, **2015**, 7, 930-49	12	38
107	Deficient mismatch repair improves organismal fitness and survival of mice with dysfunctional telomeres. *Genes and Development*, **2007**, 21, 2234-47	12.6	38
106	Primer terminus stabilization at the phi 29 DNA polymerase active site. Mutational analysis of conserved motif KXY. *Journal of Biological Chemistry*, **1995**, 270, 2735-40	5.4	38
105	Shorter telomere length is associated with increased ovarian cancer risk in both familial and sporadic cases. *Journal of Medical Genetics*, **2012**, 49, 341-4	5.8	37
104	Critically short telomeres are associated with sperm DNA fragmentation. *Fertility and Sterility*, **2005**, 84, 843-5	4.8	37

103	The mouse telomerase RNA 5"-end lies just upstream of the telomerase template sequence. *Nucleic Acids Research*, **1998**, 26, 532-6	20.1	37
102	Generation of mice with longer and better preserved telomeres in the absence of genetic manipulations. *Nature Communications*, **2016**, 7, 11739	17.4	37
101	Inhibition of TRF1 Telomere Protein Impairs Tumor Initiation and Progression in Glioblastoma Mouse Models and Patient-Derived Xenografts. *Cancer Cell*, **2017**, 32, 590-607.e4	24.3	36
100	Identification of telomere-dependent "senescence-like" arrest in mouse embryonic fibroblasts. *Experimental Cell Research*, **2002**, 276, 242-8	4.2	36
99	p53 prevents entry into mitosis with uncapped telomeres. *Current Biology*, **2010**, 20, 521-6	6.3	35
98	Telomeric sequences, radiation sensitivity and genomic instability. *International Journal of Radiation Biology*, **2001**, 77, 995-1005	2.9	35
97	Modulation of telomere protection by the PI3K/AKT pathway. *Nature Communications*, **2017**, 8, 1278	17.4	34
96	NSMCE2 suppresses cancer and aging in mice independently of its SUMO ligase activity. *EMBO Journal*, **2015**, 34, 2604-19	13	34
95	Potential of telomerase activation in extending health span and longevity. *Current Opinion in Cell Biology*, **2012**, 24, 739-43	9	34
94	Telomere shortening relaxes X chromosome inactivation and forces global transcriptome alterations. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 19393-8	11.5	34
93	Immunosenescence phenotypes in the telomerase knockout mouse. *Seminars in Immunopathology*, **2002**, 24, 75-85		34
92	Sox4 links tumor suppression to accelerated aging in mice by modulating stem cell activation. *Cell Reports*, **2014**, 8, 487-500	10.6	33
91	MSH2 deficiency abolishes the anticancer and pro-aging activity of short telomeres. *Aging Cell*, **2009**, 8, 2-17	9.9	33
90	Telomere length analysis. *Methods in Molecular Biology*, **2007**, 371, 45-72	1.4	33
89	Genetic analysis of myc and telomerase interactions in vivo. *Molecular and Cellular Biology*, **2006**, 26, 6130-8	4.8	33
88	Phi 29 DNA polymerase active site. Residue ASP249 of conserved amino acid motif "Dx2SLYP" is critical for synthetic activities. *Journal of Biological Chemistry*, **1993**, 268, 24106-13	5.4	33
87	Shorter telomere lengths in patients with severe COVID-19 disease. *Aging*, **2021**, 13, 1-15	5.6	33
86	Telomeres and telomerase in adult stem cells and pluripotent embryonic stem cells. *Advances in Experimental Medicine and Biology*, **2010**, 695, 118-31	3.6	31

85	Carcinogenesis Young Investigator Award. Telomere epigenetics: a higher-order control of telomere length in mammalian cells. *Carcinogenesis*, **2004**, 25, 1083-7	4.6	31
84	Telomere-dependent senescence. *Nature Biotechnology*, **1999**, 17, 313-4	44.5	30
83	Role for telomerase in pulmonary hypertension. *Circulation*, **2015**, 131, 742-755	16.7	29
82	Postreplicative joining of DNA double-strand breaks causes genomic instability in DNA-PKcs-deficient mouse embryonic fibroblasts. *Cancer Research*, **2005**, 65, 10223-32	10.1	29
81	Impact papers on aging in 2009. *Aging*, **2010**, 2, 111-21	5.6	29
80	A genetic interaction between RAP1 and telomerase reveals an unanticipated role for RAP1 in telomere maintenance. *Aging Cell*, **2016**, 15, 1113-1125	9.9	29
79	TopoIII prevents telomere fragility and formation of ultra thin DNA bridges during mitosis through TRF1-dependent binding to telomeres. *Cell Cycle*, **2014**, 13, 1463-81	4.7	28
78	Telomeres in cancer and aging: lessons from the mouse. *Cancer Letters*, **2003**, 194, 183-8	9.9	28
77	Structural and functional analysis of temperature-sensitive mutants of the phage phi 29 DNA polymerase. *Nucleic Acids Research*, **1990**, 18, 4763-70	20.1	28
76	Telomerase deficiency promotes oxidative stress by reducing catalase activity. *Free Radical Biology and Medicine*, **2008**, 45, 1243-51	7.8	27
75	Site-directed mutagenesis at the Exo III motif of phi 29 DNA polymerase; overlapping structural domains for the 3S5Sexonuclease and strand-displacement activities. *EMBO Journal*, **1992**, 11, 4227-37	13	27
74	Telomere dynamics in Fancg-deficient mouse and human cells. *Blood*, **2004**, 104, 3927-35	2.2	26
73	Telomere length and telomerase activity impact the UV sensitivity syndrome xeroderma pigmentosum C. *Cancer Research*, **2013**, 73, 1844-54	10.1	25
72	Mammalian meiotic telomeres: composition and ultrastructure in telomerase-deficient mice. *European Journal of Cell Biology*, **2002**, 81, 335-40	6.1	25
71	Common Telomere Changes during In Vivo Reprogramming and Early Stages of Tumorigenesis. *Stem Cell Reports*, **2017**, 8, 460-475	8	23
70	Characterization and mapping of the pyrophosphorolytic activity of the phage phi 29 DNA polymerase. Involvement of amino acid motifs highly conserved in alpha-like DNA polymerases. *Journal of Biological Chemistry*, **1991**, 266, 7904-9	5.4	23
69	Heart-Breaking Telomeres. *Circulation Research*, **2018**, 123, 787-802	15.7	23
68	The mTOR pathway is necessary for survival of mice with short telomeres. *Nature Communications*, **2020**, 11, 1168	17.4	22

67	Short telomeres are frequent in hereditary breast tumors and are associated with high tumor grade. *Breast Cancer Research and Treatment*, **2013**, 141, 231-42	4.4	22
66	Impact of chemotherapy on telomere length in sporadic and familial breast cancer patients. *Breast Cancer Research and Treatment*, **2015**, 149, 385-94	4.4	22
65	2009 nobel prize in physiology or medicine: telomeres and telomerase. *Oncogene*, **2010**, 29, 1561-5	9.2	22
64	TERRA regulate the transcriptional landscape of pluripotent cells through TRF1-dependent recruitment of PRC2. *ELife*, **2019**, 8,	8.9	21
63	ATRX driver mutation in a composite malignant pheochromocytoma. *Cancer Genetics*, **2016**, 209, 272-7	2.3	21
62	Suv4-20h abrogation enhances telomere elongation during reprogramming and confers a higher tumorigenic potential to iPS cells. *PLoS ONE*, **2011**, 6, e25680	3.7	20
61	53BP1 deficiency combined with telomere dysfunction activates ATR-dependent DNA damage response. *Journal of Cell Biology*, **2012**, 197, 283-300	7.3	19
60	Walnut Consumption for Two Years and Leukocyte Telomere Attrition in Mediterranean Elders: Results of a Randomized Controlled Trial. *Nutrients*, **2018**, 10,	6.7	18
59	Telomere shortening in enterocytes of patients with uncontrolled acute intestinal graft-versus-host disease. *Blood*, **2015**, 126, 2518-21	2.2	17
58	Essential role for the TRF2 telomere protein in adult skin homeostasis. *Aging Cell*, **2014**, 13, 656-68	9.9	17
57	Genetic dissection of the mechanisms underlying telomere-associated diseases: impact of the TRF2 telomeric protein on mouse epidermal stem cells. *DMM Disease Models and Mechanisms*, **2009**, 2, 139-56	4.1	17
56	Telomerase treatment prevents lung profibrotic pathologies associated with physiological aging. *Journal of Cell Biology*, **2020**, 219,	7.3	17
55	Hsa-miR-139-5p is a prognostic thyroid cancer marker involved in HNRNPF-mediated alternative splicing. *International Journal of Cancer*, **2020**, 146, 521-530	7.5	17
54	Gene therapy with the TRF1 telomere gene rescues decreased TRF1 levels with aging and prolongs mouse health span. *Aging Cell*, **2017**, 16, 1353-1368	9.9	16
53	Single-cell telomere-length quantification couples telomere length to meristem activity and stem cell development in Arabidopsis. *Cell Reports*, **2015**, 11, 977-989	10.6	16
52	Telomere Length Defines the Cardiomyocyte Differentiation Potency of Mouse Induced Pluripotent Stem Cells. *Stem Cells*, **2017**, 35, 362-373	5.8	15
51	Multiple cancer pathways regulate telomere´protection. *EMBO Molecular Medicine*, **2019**, 11, e10292	12	14
50	Splicing machinery dysregulation drives glioblastoma development/aggressiveness: oncogenic role of SRSF3. *Brain*, **2020**, 143, 3273-3293	11.2	14

49	Aging by telomere loss can be reversed. *Cell Stem Cell*, **2011**, 8, 3-4	18	14
48	Mouse models to study the role of telomeres in cancer, aging and DNA repair. *European Journal of Cancer*, **2002**, 38, 2222-8	7.5	14
47	Mouse models for the study of telomerase. *Novartis Foundation Symposium*, **1997**, 211, 160-70; discussion 170-6		14
46	Telomere dysfunction results in enhanced organismal sensitivity to the alkylating agent N-methyl-N-nitrosourea. *Cancer Research*, **2003**, 63, 7047-50	10.1	14
45	Telomerase gene therapy ameliorates the effects of neurodegeneration associated to short telomeres in mice. *Aging*, **2019**, 11, 2916-2948	5.6	13
44	Molecular insights into the OGG1 gene, a cancer risk modifier in BRCA1 and BRCA2 mutations carriers. *Oncotarget*, **2016**, 7, 25815-25	3.3	13
43	Repair of DNA broken ends is similar in embryonic fibroblasts with and without telomerase. *Radiation Research*, **2004**, 162, 136-42	3.1	12
42	Chronic replicative stress induced by CCl4 in TRF1 knockout mice recapitulates the origin of large liver cell changes. *Journal of Hepatology*, **2015**, 63, 446-55	13.4	11
41	Telomere dynamics in patients with del (5q) MDS before and under treatment with lenalidomide. *Leukemia Research*, **2015**,	2.7	11
40	AAV9-mediated telomerase activation does not accelerate tumorigenesis in the context of oncogenic K-Ras-induced lung cancer. *PLoS Genetics*, **2018**, 14, e1007562	6	11
39	Structural and functional studies on phi 29 DNA polymerase. *Chromosoma*, **1992**, 102, S32-8	2.8	11
38	Effectors of mammalian telomere dysfunction: a comparative transcriptome analysis using mouse models. *Carcinogenesis*, **2005**, 26, 1613-26	4.6	10
37	Transient exposure to miR-203 enhances the differentiation capacity of established pluripotent stem cells. *EMBO Journal*, **2020**, 39, e104324	13	10
36	p53 Modulates the Fate of Cardiac Progenitor Cells Ex Vivo and in the Diabetic Heart In Vivo. *EBioMedicine*, **2017**, 16, 224-237	8.8	9
35	The effect of rapamycin on bovine oocyte maturation success and metaphase telomere length maintenance. *Aging*, **2020**, 12, 7576-7584	5.6	9
34	Critically short telomeres and toxicity of chemotherapy in early breast cancer. *Oncotarget*, **2017**, 8, 21473-21482	5.3	9
33	Altered telomere homeostasis and resistance to skin carcinogenesis in Suv39h1 transgenic mice. *Cell Cycle*, **2015**, 14, 1438-46	4.7	8
32	Genome-wide analysis of in vivo TRF1 binding to chromatin restricts its location exclusively to telomeric repeats. *Cell Cycle*, **2014**, 13, 3742-9	4.7	7

31	The red blood cell proportion of arachidonic acid relates to shorter leukocyte telomeres in Mediterranean elders: A secondary analysis of a randomized controlled trial. *Clinical Nutrition*, **2019**, 38, 958-961	5.9	7
30	Inhibition of gene amplification in telomerase deficient immortalized mouse embryonic fibroblasts. *Carcinogenesis*, **2007**, 28, 553-9	4.6	6
29	In vivo role of checkpoint kinase 2 in signaling telomere dysfunction. *Aging Cell*, **2014**, 13, 810-6	9.9	5
28	Telomeres in Cancer Therapy. *Journal of Biomedicine and Biotechnology*, **2001**, 1, 3-4		5
27	Short and dysfunctional telomeres sensitize the kidneys to develop fibrosis. *Nature Aging*, **2021**, 1, 269-283		5
26	Molecular Architecture of Full-length TRF1 Favors Its Interaction with DNA. *Journal of Biological Chemistry*, **2016**, 291, 21829-21835	5.4	5
25	miR-490 suppresses telomere maintenance program and associated hallmarks in glioblastoma. *Cellular and Molecular Life Sciences*, **2021**, 78, 2299-2314	10.3	5
24	Mice lacking RAP1 show early onset and higher rates of DEN-induced hepatocellular carcinomas in female mice. *PLoS ONE*, **2018**, 13, e0204909	3.7	4
23	A synthetic mRNA cell reprogramming method using CYCLIN D1 promotes DNA repair, generating improved genetically stable human induced pluripotent stem cells. *Stem Cells*, **2021**, 39, 866-881	5.8	3
22	Maternal telomere length is shorter in intrauterine growth restriction versus uncomplicated pregnancies, but not in the offspring or in IVF-conceived newborns. *Reproductive BioMedicine Online*, **2019**, 38, 606-612	4	3
21	Safety of Whole-Body Abrogation of the TRF1 Shelterin Protein in Wild-Type and Cancer-Prone Mouse Models. *IScience*, **2019**, 19, 572-585	6.1	2
20	Telomere Binding Proteins and Disease **2008**, 229-244		2
19	Short and dysfunctional telomeres protect from allergen-induced airway inflammation. *Aging Cell*, **2021**, 20, e13352	9.9	2
18	Blood Markers in Healthy-Aged Nonagenarians: A Combination of High Telomere Length and Low Amyloid Are Strongly Associated With Healthy Aging in the Oldest Old. *Frontiers in Aging Neuroscience*, **2018**, 10, 380	5.3	2
17	Analysis of Telomere Maintenance Related Genes Reveals as a New Metastatic-Risk Marker in Pheochromocytoma/Paraganglioma. *Cancers*, **2021**, 13,	6.6	2
16	Leukocyte telomere length in patients with schizophrenia and related disorders: a meta-analysis of case-control studies.. *Molecular Psychiatry*, **2022**,	15.1	2
15	Long Live Partial Reprogramming. *Circulation Research*, **2017**, 120, 1381-1383	15.7	1
14	Profiling of Sox4-dependent transcriptome in skin links tumour suppression and adult stem cell activation. *Genomics Data*, **2015**, 6, 21-4		1

13	A possible role for telomerase RNA and telomere length in global mitotic recombination. *Cytogenetic and Genome Research*, **2008**, 122, 292-6	1.9	1
12	The telomerase knockout mouse. *Advances in Cell Aging and Gerontology*, **2001**, 8, 151-165		1
11	Slower rates of accumulation of DNA damage in leukocytes correlate with longer lifespans across several species of birds and mammals. *Aging*, **2019**, 11, 9829-9845	5.6	1
10	Conditional TRF1 Knockout in Haematopoietic Progenitor Cells Causes Telomere Shortening and Bone Marrow Failure by Induction of Cellular Senescence. *Blood*, **2011**, 118, 49-49	2.2	1
9	AKT-dependent signaling of extracellular cues through telomeres impact on tumorigenesis. *PLoS Genetics*, **2021**, 17, e1009410	6	1
8	Early differential responses elicited by BRAF in adult mouse models.. *Cell Death and Disease*, **2022**, 13, 142	9.8	0
7	Dynamics of telomeric repeat-containing RNA expression in early embryonic cleavage stages with regards to maternal age. *Aging*, **2020**, 12, 15906-15917	5.6	0
6	Ageing affects subtelomeric DNA methylation in blood cells from a large European population enrolled in the MARK-AGE study. *GeroScience*, **2021**, 43, 1283-1302	8.9	0
5	Reply to Udroiu: Interesting mathematical analysis of telomere shortening rate and life span. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 2250	11.5	
4	Mar Blasco: Keeping a cap on cancer and aging. Interview by Caitlin Sedwick. *Journal of Cell Biology*, **2011**, 192, 370-1	7.3	
3	Nuclear envelope defects cause stem cell dysfunction in premature-aging mice. *Journal of Experimental Medicine*, **2008**, 205, i10-i10	16.6	
2	Accelerated Telomere Shortening Identifies a Subgroup of Patients with Myelodysplastic Syndrome and Isolated 5q Minus Deletion with a Higher Probability of Response to Lenalidomide Treatment. *Blood*, **2012**, 120, 3809-3809	2.2	
1	Screening protocol for the identification of modulators by immunofluorescent cell-based assay. *Chemical Biology and Drug Design*, **2020**, 95, 66-78	2.9	