TELOMERE RESEARCH NETWORK

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RECENT PUBLICATIONS IN TELOMERE RESEARCH

JULY – OCTOBER | QUARTER 3, 2022

A quarterly collection from the Telomere Research Network, featuring recent publications in population-based telomere research

Selection Curated By: Julianne Crawford, Natalie Eng, Madeline Magruder

Primary Research Articles:

Aging

Citation	TL Method(s)	Species Studied (n)
Chen, X., et al. (2022). Mediation Effect of Platelet Traits on Associations of Central Obesity with Aging Biomarkers in Rural Adults of Henan, China. *Nutrients*, 14(17), 3597. doi: 10.3390/nu14173597.	MMqPCR	Human (5,091)
Curtis, E. M., et al. (2022). Telomere Length and Risk of Incident Fracture and Arthroplasty: Findings From UK Biobank. *Journal of bone and mineral research : the official journal of the american society for bone and mineral research*, doi: 10.1002/jbmr.4664.	qPCR	Human (111,395)
Drewelies J, et al. (2022) Using blood test parameters to define biological age among older adults: association with morbidity and mortality independent of chronological age validated in two separate birth cohorts. *Geroscience*. doi: 10.1007/s11357-022-00662-9.	qPCR	Human (1,901)
Fan, Y., et al. (2022). The association between visceral adiposity index and leukocyte telomere length in adults: results from National Health and Nutrition Examination Survey. *Aging clinical and experimental research*, 34(9), 2177–2183. doi: 10.1007/s40520-022-02168-y.	qPCR	Human (3,193)

Citation	TL Method(s)	Species Studied (n)
Jitjumnong, M., et al. (2022). Telomere Shortening and Increased Oxidative Stress in Lumbar Disc Degeneration. *International journal of molecular sciences*, 23(17), 10125. doi: 10.3390/ijms231710125.	qPCR	Human (100)
Kar, S. P., et al. (2022). Genome-wide analyses of 200,453 individuals yield new insights into the causes and consequences of clonal hematopoiesis. *Nature genetics*, 54(8), 1155–1166. doi: 10.1038/s41588-022-01121-z.	MMqPCR	Human (200,453)
Kirk, B., et al. (2022). Associations between leukocyte telomere length and osteosarcopenia in 20,400 adults aged 60 years and over: Data from the UK Biobank. *Bone*, 161, 116425. doi: 10.1016/j.bone.2022.116425.	MMqPCR	Human (20,400)
Natalini, J. G., et al. (2022). Associations between shortened telomeres and rheumatoid arthritis-associated interstitial lung disease among U.S. Veterans. *Respiratory medicine*, 201, 106943. doi: 10.1016/j.rmed.2022.106943.	qPCR	Human (50)
Rodríguez-Fernández, B., et al. (2022). Genetically predicted telomere length and its relationship with neurodegenerative diseases and life expectancy. *Computational and structural biotechnology journal*, 20, 4251–4256. doi: 10.1016/j.csbj.2022.08.006.	MMqPCR	Human (78,592)
Subedi, P., et al. (2022). Lipidomics profiling of biological aging in American Indians: the Strong Heart Family Study. *GeroScience*, doi: 10.1007/s11357-022-00638-9.	qPCR	Human (1,843)
Vetter VM, et al. (2022) Relationship Between 5 Epigenetic Clocks, Telomere Length, and Functional Capacity Assessed in Older Adults: Cross-Sectional and Longitudinal Analyses. *The journal gerontology series a: biological sciences and medical sciences*. 77(9):1724-1733. doi: 10.1093/gerona/glab381.	MMqPCR	Human (1,083)
Yu, T., et al. (2022). Premature aging is associated with higher levels of 8-oxoguanine and increased DNA damage in the Polg mutator mouse. *Aging cell*, 21(9), e13669. doi: 10.1111/acel.13669.	Q-FISH	Human & Mice (246)

Biomarker

Citation	TL Method(s)	Species Studied (n)
Bürgin, D., Varghese, et al. (2022). Higher hair cortisol concentrations associated with shorter leukocyte telomere length in high-risk young adults. *Scientific reports*, 12(1), 11730. doi: 10.1038/s41598-022-14905-4.	qPCR	Human (92)
Ghoussaini, R., et al. (2022). C-peptide is a predictor of telomere shortening: A five-year longitudinal study. *Frontiers in endocrinology*, 13, 978747. doi: 10.3389/fendo.2022.978747.	MMqPCR	Human (198)
Goumy, C., et al. (2022). Reduced telomere length in amniocytes: an early biomarker of abnormal fetal development?. *Human molecular genetics*, 31(16), 2669–2677. doi: 10.1093/hmg/ddac054.	aTL qPCR	Human (282)
Reimann, B., et al. (2022). Interrelationships and determinants of aging biomarkers in cord blood. *Journal of translational medicine*, 20(1), 353. doi: 10.1186/s12967-022-03541-1.	qPCR	Human (190)

Cancer

Citation	TL Method(s)	Species Studied (n)
Bae, J. S., et al. (2022). Clinical significance of germline telomere length and associated genetic factors in patients with neuroblastoma. *Scientific reports*, 12(1), 12954. doi: 10.1038/s41598-022-17246-4.	qPCR	Human (186)
Gedvilaite, G., et al. (2022). Molecular Markers of Telomerase Complex for Patients with Pituitary Adenoma. *Brain sciences*, 12(8), 980. doi: 10.3390/brainsci12080980.	qPCR	Human (494)
Heaphy, C. M., et al. (2022). The prostate tissue-based telomere biomarker as a prognostic tool for metastasis and death from prostate cancer after prostatectomy. *The journal of pathology. Clinical research*, 8(5), 481–491. doi: 10.1002/cjp2.288.	Q-FISH	Human (2,255)
Meeser, A., et al. (2022). Reliable assessment of telomere maintenance mechanisms in neuroblastoma. *Cell & Bioscience,* 12(1). doi: 10.1186/s13578-022-00896-2.	Southern Blot	Human (68)
Miki, A., et al. (2022). Telomere Attrition in Intraductal Papillary Mucinous Neoplasms of the Pancreas Associated With Carcinogenesis and Aging. *Pancreas*, 51(6), 678–683. doi: 10.1097/MPA.0000000000002081.	Q-FISH	Human (28)
Montero-Conde, C., et al. (2022). Comprehensive molecular analysis of immortalization hallmarks in thyroid cancer reveals new prognostic markers. *Clinical and translational medicine*, 12(8), e1001. doi: 10.1002/ctm2.1001.	Metaphase Q-FISH	Human (106)
Mushtaq, I., et al. (2022). Telomere Attrition With Concomitant hTERT Overexpression Involved in the Progression of Gastric Cancer May Have Prognostic and Clinical Implications in High-Risk Population Group From North India. *Frontiers in oncology*, 12, 919351. doi: 10.3389/fonc.2022.919351.	MMqPCR	Human (57)
Park, H. S., et al. (2022). Usefulness of Genetic Aberration and Shorter Telomere Length in Myelodysplastic Syndrome: A Pilot Study. *Laboratory medicine*, doi: 10.1093/labmed/lmac100.	qPCR	Human (46)
Son, N., et al. (2022). Association Between Telomere Length and Skin Cancer and Aging: A Mendelian Randomization Analysis. *Frontiers in genetics*, 13, 931785. doi: 10.3389/fgene.2022.931785.	qPCR	Human (42)
Tomasova, K., et al. (2022). Monitoring of telomere dynamics in peripheral blood leukocytes in relation to colorectal cancer patients' outcomes. *Fronteirs in oncology*, 12: 962929. doi: 10.3389/fonc.2022.962929.	MMqPCR	Human (198)

Early Life Development

Citation	TL Method(s)	Species Studied (n)
Aoulad Fares, D., et al. (2022). Shorter periconception maternal telomere length and the risk of congenital cardiac outflow defects in the offspring. *European journal of clinical investigation*, 52(8), e13784. doi: 10.1111/eci.13784.	qPCR	Human (853)
Jentsch, A., et al. (2022). The relation between sensory processing sensitivity and telomere length in adolescents. *Brain and behavior*, 12(9), e2751. doi: 10.1002/brb3.2751.	MMqPCR	Human (82)
Martens, D. S., et al. (2022). Association of Newborn Telomere Length With Blood Pressure in Childhood. *JAMA network open*, 5(8), e2225521. doi: 10.1001/jamanetworkopen.2022.25521.	qPCR	Human (485)
Petermann-Rocha, F., et al. (2022). Children who sleep more may have longer telomeres: evidence from a longitudinal population study in Spain. *Pediatric research*, doi: 10.1038/s41390-022-02255-w.	qPCR	Human (1,014)
Qureshi, F., et al. (2022). Associations of cord blood leukocyte telomere length with adiposity growth from infancy to adolescence. *Pediatric obesity*: e12977. doi: 10.1111/ijpo.12977.	MMqPCR	Human (375)
White, S. L., et al. (2022). Evaluation of Clonal Hematopoiesis in Pediatric ADA-SCID Gene Therapy Participants. *Blood advances*, doi: 10.1182/bloodadvances.2022007803.	qPCR	Human (26)
Woo, J., et al. (2022). Early life trauma and adult leucocyte telomere length. *Psychoneuroendocrinology*, 144, 105876. doi: 10.1016/j.psyneuen.2022.105876.	MMqPCR	Human (602)

Environmental Exposure

Citation	TL Method(s)	Species Studied (n)
Chandyo, R. K., et al. (2022). The association between household biomass fuel use and leukocyte telomere length among toddlers in Bhaktapur, Nepal. *Journal of exposure science and environmental epidemiology*, doi: 10.1038/s41370-022-00474-1.	qPCR	Human (497)
Guo, Z., et al. (2022). Relationship between miRNAs polymorphisms and peripheral blood leukocyte DNA telomere length in coke oven workers: A cross-sectional study. *Environmental toxicology and pharmacology*, 95, 103941. doi: 10.1016/j.etap.2022.103941.	MMqPCR	Human (782)
Hawks, R. M., et al. (2022). Prenatal phthalate exposure and placental telomere length. *American journal of obstetrics & gynecology MFM*, 4(6), 100694. doi: 10.1016/j.ajogmf.2022.100694.	MMqPCR	Human (50)
Lai, X., et al. (2022). Individual and joint associations of co-exposure to multiple plasma metals with telomere length among middle-aged and older Chinese in the Dongfeng-Tongji cohort. *Environmental research*, 214(Pt 3), 114031. doi: 10.1016/j.envres.2022.114031.	MMqPCR	Human (4,906)
Li, R., et al. (2022). Aging biomarkers: Potential mediators of association between long-term ozone exposure and risk of atherosclerosis. *Journal of internal medicine*, 292(3): 512-522. doi: 10.1111/joim.13500.	qPCR	Human (5,298)
Nasiri, L., et al. (2022). Concomitant use of relative telomere length, biological health score and physical/social statuses in the biological aging evaluation of mustard-chemical veterans. *International immunopharmacology*, 109, 108785. doi: 10.1016/j.intimp.2022.108785.	HPA	Human (561)
Saini, D., et al. (2022). Evaluation of natural chronic low dose radiation exposure on telomere length and transcriptional response of shelterin complex in individuals residing in Kerala coast, India. *Mutation research*, 825: 111797. doi: 10.1016/j.mrfmmm.2022.111797.	qPCR	Human (71)
Song, L., et al. (2022). Ambient ozone exposure during pregnancy and telomere length in newborns: a prospective investigation in Wuhan, China. *Environmental science and pollution research*, 29(41): 62662-62668. doi: 10.1007/s11356-022-19977-3.	MMqPCR	Human (762)
Takahashi, T., et al. (2022). Association between telomere length in human umbilical cord tissues and polychlorinated biphenyls in maternal and cord serum. *Chemosphere*, 300, 134560. doi: 10.1016/j.chemosphere.2022.134560.	qPCR	Human (144)
Xia, F., et al. (2022). Association between urinary metals and leukocyte telomere length involving an artificial neural network prediction: Findings based on NHANES 1999-2002. *Fronteirs in public health*, 10: 963138. doi: 10.3389/fpubh.2022.963138.	qPCR	Human (2,420)

Health Disparities

Citation	TL Method(s)	Species Studied (n)
Carroll, J. E., et al. (2022). Lifetime discrimination in low to middle income mothers and cellular aging: A prospective analysis. *Social science and medicine*, 311: 115356. doi: 10.1016/j.socscimed.2022.115356.	qPCR	Human (103)
Ghanooni, D., et al. (2022). Sexual Minority Stress and Cellular Aging in Methamphetamine-Using Sexual Minority Men with Treated HIV. *Psychosomatic medicine*, doi: 10.1097/PSY.0000000000001123.	DNAmTL	Human (52)
Khalil, D., et al. (2022). Psychosocial Factors and Telomere Length Among Parents and Infants of Immigrant Arab American Families. *Biological research for nursing*, doi: 10998004221124145.	MMqPCR	Human (52 Mother-Father-Child Triads)
Montiel Ishino, F. A., et al. (2022). A Time-Varying Effect Model (TVEM) of the Complex Association of Tobacco Use and Smoke Exposure on Mean Telomere Length: Differences between Racial and Ethnic Groups Assessed in the National Health and Nutrition Examination Survey. *International journal of environmental research and public health*, 19(17) doi: 10.3390/ijerph191711069.	qPCR	Human (7,826)
Niño M., et al. (2022). Poverty, Material Hardship, and Telomere Length Among Latina/o Children. *Journal of racial and ethnic health disparities*, 9(4), 1315–1324. doi: 10.1007/s40615-021-01072-x.	aTL qPCR	Human (417)
Niño, M., et al. (2022). Paternal Incarceration, Race and Ethnicity, and Maternal Health. *Journal of racial and ethnic health disparities*, doi: 10.1007/s40615-022-01388-2.	aTL qPCR	Human (2,174)

Lifestyle and social environment

Citation	TL Method(s)	Species Studied (n)
Barbosa, A. R. C., et al. (2022). Association of Social Support Network with Telomere Length: A Cross-Sectional Study with Community-Dwelling Older Adults. *Rejuvenation research*, doi: 10.1089/rej.2022.0037.	MMqPCR	Human (448)
Hautekiet, P., et al. (2022). A healthy lifestyle is positively associated with mental health and well-being and core markers in ageing. *BMC medicine*, 20(1): 328. doi: 10.1186/s12916-022-02524-9.	qPCR	Human (6,054)
Sharqawi, M., et al. (2022). The Impact of Lifestyle on Sperm Function, Telomere Length, and IVF Outcomes. *American journal of men's health*, 16(5): 15579883221119931. doi: 10.1177/15579883221119931.	qPCR	Human (34)

Mental Illness and Psychopathology

Citation	TL Method(s)	Species Studied (n)
Carroll, J. E., et al. (2022). Accelerated mononuclear cell telomere attrition in breast cancer survivors with depression history: A 2-year longitudinal cohort study. *Cancer*, 128(16), 3109–3119. doi: 10.1002/cncr.34329.	qPCR	Human (206)
Gurvich, C., et al. (2022). The relationship between cognitive clusters and telomere length in bipolar-schizophrenia spectrum disorders. *Psychological medicine*, 1–8. doi: 10.1017/S0033291722002148.	qPCR	Human (186)
Huda, N., et al. (2022). Telomere length in patients with alcohol-associated liver disease: a brief report. *Journal of investigative medicine : the official publication of the American Federation for Clinical Research*, 70(6), 1438–1441. doi: 10.1136/jim-2021-002213.	Southern Blot	Human
Jung, J., et al. (2022). Additive Effects of Stress and Alcohol Exposure on Accelerated Epigenetic Aging in Alcohol Use Disorder. *Biological psychiatry*, S0006-3223(22)01430-5. doi: 10.1016/j.biopsych.2022.06.036.	DNAmTL	Human (317)
Kuehl, L. K., et al. (2022). Telomere length in individuals with and without major depression and adverse childhood experiences. *Psychoneuroendocrinology*, 142, 105762. doi: 10.1016/j.psyneuen.2022.105762.	MMqPCR	Human (90)
Llorente, H., et al. (2022). Genetic susceptibility to telomere shortening through the rs2293607 polymorphism is associated with a greater risk of alcohol use disorder. *Mechanisms of ageing and development*, 206: 111693. doi: 10.1016/j.mad.2022.111693.	qPCR	Human (198)
Segura, À. G., et al. (2022). Epigenetic clocks in relapse after a first episode of schizophrenia. *Schizophrenia* (Heidelberg, Germany), 8(1), 61. doi: 10.1038/s41537-022-00268-2.	DNAmTL	Human (91)
Topiwala, A., et al. (2022). Alcohol consumption and telomere length: Mendelian randomization clarifies alcohol's effects. *Molecular psychiatry*, doi: 10.1038/s41380-022-01690-9.	MMqPCR	Human (472,174)

Methodology

Citation	TL Method(s)	Species Studied (n)
Chang, T. R., et al. (2022). Single-Molecule Mechanical Analysis of Strand Invasion in Human Telomere DNA. *Biochemistry*, 61(15), 1554–1560. doi: 10.1021/acs.biochem.1c00448.	Metaphase Q-FISH	Human
Precioso, M., et al. (2022). Effects of long-term ethanol storage of blood samples on the estimation of telomere length. *Evolutionary ecology*, doi: 10.1007/s10682-022-10198-1.	MMqPCR	Magpie
Xu, L., et al. (2022). Comparison of Telomere Length between Buccal Cells and Blood Cells. *Bulletin of Experimental biology and medicine*, 173(5): 677-679. doi: 10.1007/s10517-022-05612-1.	qPCR	Human (52)

Nutrition

Citation	TL Method(s)	Species Studied (n)
Fu, J., et al. (2022). Circulating folate concentrations and the risk of mild cognitive impairment: A prospective study on the older Chinese population without folic acid fortification. *European journal of neurology*, 29(10), 2913–2924. doi: 10.1111/ene.15474.	qPCR	Human (3,974)
Magnano San Lio, R., et al. (2022). Nutrient intakes and telomere length of cell-free circulating DNA from amniotic fluid: findings from the Mamma & Bambino cohort. *Scientific reports*, 12(1), 11671. doi: 10.1038/s41598-022-15370-9.	qPCR	Human (174)
Opstad, T. B., et al. (2022). Selenium and Coenzyme Q10 Intervention Prevents Telomere Attrition, with Association to Reduced Cardiovascular Mortality-Sub-Study of a Randomized Clinical Trial. *Nutrients*, 14(16), 3346. doi: 10.3390/nu14163346.	qPCR	Human (118)
Seo, B., et al. (2022). Association of omega-3 and omega-6 fatty acid intake with leukocyte telomere length in US males. *The american journal of clinical nutrition*, doi: 10.1093/ajcn/nqac263.	MMqPCR	Human (2,494)
Wong, K. K., et al. (2022). Vitamin D Levels During Pregnancy Are Associated With Offspring Telomere Length: A Longitudinal Mother-Child Study. *The Journal of clinical endocrinology and metabolism*, 107(9), e3901–e3909. doi: 10.1210/clinem/dgac320.	MMqPCR	Human

Physiology & Pathophysiology

Cardiovascular

Citation	TL Method(s)	Species Studied (n)
Opstad, T. B., et al. (2022). TERT and TET2 Genetic Variants Affect Leukocyte Telomere Length and Clinical Outcome in Coronary Artery Disease Patients-A Possible Link to Clonal Hematopoiesis. *Biomedicines*, 10(8), 2027. doi: 10.3390/biomedicines10082027.	qPCR	Human (1,001)
Shaked, E., et al. (2022). Identification of protective biologic factors in patients with high cardiovascular risk, but normal coronary arteries (NormCorn). *Coronary artery disease*, 33(7), 540–546. doi: 10.1097/MCA.0000000000001174.	Southern Blot	Human (44)
von Falkenhausen, A. S., et al. (2022). Common electrocardiogram measures are not associated with telomere length. *Aging*, 14(14), 5620–5627. doi: 10.18632/aging.204149.	MMqPCR, qPCR	Human (3080)

Telomere Biology Disorders

Citation	TL Method(s)	Species Studied (n)
Choo, S., et al. (2022). Editing TINF2 as a potential therapeutic approach to restore telomere length in dyskeratosis congenita. *Blood*, 140(6), 608–618. doi: 10.1182/blood.2021013750.	TeSLA	Mice
Xu, Q., et al. (2022). Vascular senescence in progeria: role of endothelial dysfunction. *European heart journal open*, 2(4), oeac047. doi: 10.1093/ehjopen/oeac047.	Q-FISH	Cell Culture

Endocrinological

Citation	TL Method(s)	Species Studied (n)
Bhatt, S. P., et al. (2022). Shortening of leucocyte telomere length is independently correlated with high body mass index and subcutaneous obesity (predominantly truncal), in Asian Indian women with abnormal fasting glycemia. *BMJ open diabetes research & care*, 10(4), e002706. doi: 10.1136/bmjdrc-2021-002706.	qPCR	Human (797)
Chen, L., et al. (2022). Biological ageing and the risks of all-cause and cause-specific mortality among people with diabetes: a prospective cohort study. *Journal of epidemiology and community health*, 76(9): 771-778. doi: 10.1136/jech-2022-219142.	qPCR	Human (5,278)
Schmitz, D., et al. (2022). Specific features of ex-obese patients significantly influence the functional cell properties of adipose-derived stromal cells. *Journal of cellular and molecular medicine*, 26(16), 4463–4478. doi: 10.1111/jcmm.17471.	aTL qPCR	Human (20)

Immunology and Autoimmune

Citation	TL Method(s)	Species Studied (n)
Kayacık Günday, Ö., et al. (2022). The effect of metformin treatment on leukocyte telomere length in patients with polycystic ovary syndrome: a prospective case-control study. *Journal of assisted reproduction and genetics*, 39(9), 2153–2161. doi:10.1007/s10815-022-02577-y.	qPCR	Human (60)
Liao, Q., et al. (2022). A causal relationship between leukocyte telomere length and multiple sclerosis: A Mendelian randomization study. *Frontiers in immunology*, 13, 922922. doi: 10.3389/fimmu.2022.922922.	MMqPCR	Human (78,592)
Ma, Y., et al. (2022). Telomere length and multiple sclerosis: a Mendelian randomization study. *The International journal of neuroscience*, 1–5. doi: 10.1080/00207454.2022.2098737.	MMqPCR	Human (78,592)
Pölönen, J., et al. (2022). Polycystic ovary syndrome and leukocyte telomere length: cross-sectional and longitudinal changes. *European journal of endocrinology*, 187(5): 651-661. doi: 10.1530/eje-22-0462.	MMqPCR	Human (1,531)
Wang, X. F., et al. (2022). Telomere length and development of systemic lupus erythematosus: a Mendelian randomization study. *Arthritis & rheumatology* (Hoboken, N.J.), doi: 10.1002/art.42304.	MMqPCR	Human (23,096)
Zhang, Y., et al. (2022). Telomere is shortened in patients with irritable bowel syndrome in the Chinese population. *Journal of gastroenterology and hepatology*, doi: 10.1111/jgh.15912.	qPCR	Human (394)

Neurological

Citation	TL Method(s)	Species Studied (n)
Liu, Y., et al. (2022). Telomere Length and Hearing Loss: A Two-Sample Mendelian Randomization. *International journal of environmental research and public health*, 19(15), 8937. doi: 10.3390/ijerph19158937.	MMqPCR	Human (78,592)
Liutkeviciene, R., et al. (2022). Relative Leukocyte Telomere Length and Telomerase Complex Regulatory Markers Association with Leber's Hereditary Optic Neuropathy. *Medicina*, 58(9): 1240. doi: 10.3390/medicina58091240.	qPCR	Human (144)
Scarabino, D., et al. (2022). Leukocyte Telomere Length Variability as a Potential Biomarker in Patients with PolyQ Diseases. *Antioxidants* (Basel, Switzerland), 11(8), 1436. doi:10.3390/antiox11081436.	qPCR	Human (107)

Reproduction

Citation	TL Method(s)	Species Studied (n)
Chico-Sordo, L., et al. (2022). Telomeres and oocyte maturation rate are not reduced by COVID-19 except in severe cases. *Reproduction*, 164(5): 259-267. doi: 10.1530/rep-22-0243.	Q-FISH	Human (65)
Derevyanko, A., et al. (2022). The Interplay between Telomeres, Mitochondria, and Chronic Stress Exposure in the Aging Egg. *Cells*, 11(16), 2612. doi: 10.3390/cells11162612.	MMqPCR	Human (375)
Panelli, D. M., et al. (2022). An exploratory analysis of leukocyte telomere length among pregnant and non-pregnant people. *Brain, behavior, and immunity - health*, 25: 100506. doi: 10.1016/j.bbih.2022.100506.	qPCR	Human (62)
Pilbauerova, N., et al. (2022). Effect of Human Platelet Lysate as Cultivation Nutrient Supplement on Human Natal Dental Pulp Stem Cell In Vitro Expansion. *Biomolecules*, 12(8), 1091. doi: 10.3390/biom12081091.	Flow-Fish; qPCR	Human
Tian, C., et al. (2022). Short telomeres impede germ cell specification by upregulating MAPK and TGFβ signaling. *Science china life sciences*, doi: 10.1007/s11427-022-2151-0.	Southern Blot	Mice

Respiratory

Citation	TL Method(s)	Species Studied (n)
Hernández Cordero, A. I., et al. (2022). Airway Aging and Methylation Disruptions in HIV-associated Chronic Obstructive Pulmonary Disease. *American journal of respiratory and critical care medicine*, 206(2), 150–160. doi: 10.1164/rccm.202106-1440OC.	DNAmTL	Human (76)
Putman, R. K., et al. (2022). Interstitial lung abnormalities are associated with decreased mean telomere length. *The European respiratory journal*, 60(2), 2101814. doi: 10.1183/13993003.01814-2021.	qPCR; TRF	Human (4,452)
Tacheva, T., et al. (2022). The Leucocyte Telomere Length, GSTM1 and GSTT1 Null Genotypes and the Risk of Chronic Obstructive Pulmonary Disease. *Current issues in molecular biology*, 44(8), 3757–3769. doi: 10.3390/cimb44080257.	aTL qPCR	Human (283)
Wang, T., et al. (2022). The association between leukocyte telomere length and chronic obstructive pulmonary disease is partially mediated by inflammation: a meta-analysis and population-based mediation study. *BMC pulmonary medicine*, 22(1), 320. doi: 10.1186/s12890-022-02114-8.	TeSLA	Human (6,378)
Zhang, D., et al. (2022). Utility of whole genome sequencing in assessing risk and clinically-relevant outcomes for pulmonary fibrosis. *The European respiratory journal*, 2200577 doi: 10.1183/13993003.00577-2022.	qPCR	Human (949)

Infectious Diseases

Citation	TL Method(s)	Species Studied (n)
Huang, D., et al. (2022). Association between COVID-19 and telomere length: A bidirectional Mendelian randomization study. *Journal of medical virology*, 94(11), 5345–5353. doi: 10.1002/jmv.28008.	MMqPCR	Human (472,174)
Li, L., et al.. (2022). Accelerated Aging of T-Cell Subsets Among ART-Naïve HIV-Infected Chinese Men Who have Sex with Men: A Case-Control Study. *Current HIV research*, 20(2), 129–136. doi: 10.2174/1570162X20666220216103504.	qPCR	Human (46)
Retuerto, M., et al. (2022). Shorter telomere length is associated with COVID-19 hospitalization and with persistence of radiographic lung abnormalities. *Immunity & ageing : I & A*, 19(1), 38. doi: 10.1186/s12979-022-00294-9.	qPCR	Human (251)
Wight, D. J., et al. (2022). Impact of Host Telomere Length on HHV-6 Integration. *Viruses*, 14(9), 1864. doi: 10.3390/v14091864.	Flow-FISH	Cell Lines

Stress and Trauma

Citation	TL Method(s)	Species Studied (n)
Bürgin, D., et al. (2022). Adverse and traumatic exposures, posttraumatic stress disorder, telomere length, and hair cortisol - Exploring associations in a high-risk sample of young adult residential care leavers. *Brain behavior and immune health*, 26: 100524. doi: 10.1016/j.bbih.2022.100524.	qPCR	Human (130)
He, D., et al. (2022). Association between telomere length and insomnia: A mendelian randomization and colocalization study. *Sleep medicine*, 100: 304-310. doi: 10.1016/j.sleep.2022.09.002.	MMqPCR	Human (472,174)
Lahav, Y., et al. (2022). Shorter Telomeres Among Individuals With Physical Disability: The Moderating Role of Perceived Stress. The journals of gerontology. Series B, *Psychological sciences and social sciences*, 77(8), 1384–1393. doi: 10.1093/geronb/gbab200.	TRF	Human (119)

Reviews & Meta-Analyses:

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