Abbreviations

^{3}H-Tdr	Tritiated thymidine
ALT	Alternative Lengthening of Telomeres
ATM	Ataxia telangiectasia mutated protein kinase
ATR	ATM and Rad3-related protein kinase
AZT	Azidothymine
bp	Base pairs
BrdU	Bromodeoxyuridine
BSA	Bovine serum albumin
CDK	Cyclin dependent kinase
CKI	Cyclin dependent kinase inhibitors
CO_2	Carbon dioxide
COPASI	Complex Pathway Simulator
CRUK	Cancer Research UK
dATP	2'-Deoxyadenosine 5'-triphosphate
dCTP	2'-Deoxycytidine 5'-triphosphate
dGTP	2'-Deoxyguanosine 5'-triphosphate
dTTP	2'-deoxythymidine 5'-triphosphate
dH_2O	Distilled water
D-loop	Displacement loop
DMF	N-N' Dimethylformamide
DMSO	Dimethyl Sulfoxide
DNA	Deoxyribonucleic acid
ds	Double stranded
ECM	Extracellular matrix
EDTA	Ethylene-diamine-tetra-acetic acid
EGF	Epidermal growth factor
FACS	Fluorescence activated cell sorter
FBS	Foetal Bovine Serum
FITC	Fluorescein isothiocyanate
FSC	Forward scatter
GF	Growth factor
GI_{50}	Concentration of agent at which growth of cells is inhibited by 50%
GJIC	Gap Junctional Intercellular Communication
GS	Mitogenic Growth Signals
HCl	Hydrochloric acid
IC_{50}	Concentration of agent to cause 50% inhibition
IMS	Industrial Methylated Spirits
kb	Kilobases
kDa	Kilodaltons
MAb	Monoclonal antibody
MeOH	Methanol
MPF	M-phase promoting factor
MTT	3-(4, 5- Dimethylthiazol-2-yl)-2, 5-diphenyl-tetarazolium bromide
MRI	Magnetic Resonance Imaging
NCI	National Cancer Institute
ODE	Ordinary Differential Equation

p53	Tumour protein 53
PARP	Poly (ADP-ribose) polymerase
PBS	Phosphate buffered saline
PBSA	Phosphate buffered saline and 1% bovine serum albumin
PBSAT	Phosphate buffered saline and 1% bovine serum albumin and 0.5% Tween-20
PDE	Partial differential equation
PDGF	Platelet-Derived Growth Factor
PET	Positron emission topography
PFA	Paraformaldehyde
PHA	Phytohaemagglutinin
PI	Propidium iodide
POT 1	Protection of telomere 1 (telomeric DNA binding protein)
Rb	Retinoblastoma
RHPS4	3, 11-difluoro-6, 8, 13-trimethyl-8H-quino [4, 3, 2-kl] acridinium methosulfate
RPM	Revolutions per minute
RPMI	Roswell Park Memorial Institute
RNA	Ribonucleic acid
RNAi	RNA-interference
RNAse A	Ribonuclease A
RNP	Ribonucleoprotein
RT	Room temperature
SA-β-gal	Senescence-Associated β-galactosidase
SD	Standard deviation
SDD	Steady DNA Distribution
ss	Single stranded
SSC	Side scatter
SSD	Steady Size Distribution
siRNA	Silencing RNA
Td	Time taken to complete one population doubling
Tdr	Thymidine
TdT	Terminal Deoxynucleotidyl Transferase
TERC	Telomerse RNA Component
TERT	Telomerase Reverse Transcriptases
TGFα	Tumour Growth Factor α
TIFs	Telomere-dysfunction-induced foci
TIN1	TRF1 interacting protein 1
TIN2	TRF1 interacting protein 2
T-loop	Telomere terminus loop
T_m	Melting point
TPP1	tripeptidyl peptidase I
TRAP	Telomeric repeat amplification protocol
TRF1	Terminal Binding Factor1
TRF2	Terminal Binding Factor 2
UV	Ultraviolet
X-gal	5- Bromo-4-chloro-3-indolyl-β-D-galactopyranoside