

LIST OF ABBREVIATIONS

$^1\text{O}_2$	singlet oxygen
$^2\text{H}_2\text{O}$	heavy water
$^3\text{H}_2\text{O}$	tritiated water
A-bomb	atomic bomb
ADME	absorption, distribution, metabolism and excretion
AFP	fused aluminosilicate particles
AML	acute myeloid leukaemia
APE1	apurinic/aprimidinic endonuclease-1
APRT	adenine phosphoribosyltransferase
ATM	Ataxia-telangiectasia
AVHRR	Advanced Very High Resolution Radiometer
AWE	Atomic Weapons Establishment
bFGF	basic fibroblast growth factor
CANDU	CANada Deuterium Uranium
CFCs	chlorofluorocarbons
CHO	Chinese hamster ovary
CIE	Commission Internationale de l'Eclairage
CNS	central nervous system
CO ₂	carbon dioxide
COX-2	cyclooxygenase-2
CpG	5'CG-3' dinucleotide
CSA	cockayne syndrome A
CT	computed tomography
DMBA	7,12-dimethylbenz[a]anthracene
DS02	Dosimetry System 2002
EAR	excess absolute risk
ECLIS	European Childhood Leukaemia–Lymphoma Study
EPHA2	ephrin receptor A2
ERCC1	excision repair cross-complementing rodent deficiency, complementation group 1
ERR	excess relative risk
eV	electron-volt
FAP	Fused Aluminosilicate Particles
GG	global genome
GGR	global genome repair
GWAS	genome-wide association studies
H ₂ O ₂	hydrogen peroxide
HCFCs	hydrochlorofluorocarbons

HGF/SF	hepatocyte growth factor/scatter factor
HIV	human immunodeficiency virus
hOGG1	human 8-oxoguanine DNA glycosylase
HPRT	hypoxanthine-guanine phosphoribosyltransferase
HPV	human papilloma virus
HR	hazard ratio
HSV	herpes simplex virus
IADs	initial alveolar deposits
IL-6R	interleukin-6 receptor
INK4a	inhibitor of cycline-dependant kinase 4 & 6
IRF4	interferon regulatory factor 4
IRSCCP	International Radiation Study of Cervical Cancer Patients
keV	kilo eV
LET	linear energy transfer
LSS	Life Span Study
MAPKs	Mitogen-activated protein kinases
MATP	membrane-associated transporter protein
MC1R	melanocortin-1 receptor
MDS	myelodysplastic syndrome
MED	minimal erythematous dose
MeV	mega eV
MM	malignant melanoma
NADPH	nicotinamide adenine dinucleotide phosphate
NER	nucleotide excision repair
NOS	not otherwise specified
NRRW	National Registry for Radiation Workers
O ₂ ⁻	superoxide anion radical
OCA2	blue eye oculocutaneous albinism type II
OMI	Ozone Monitoring Instrument
OR	odds ratio
PET	positron emission tomography
PKCε	protein kinase C epsilon
PO ₄ ²⁻	phosphate
<i>PTCH</i>	patched gene
PTEN	phosphatase and tensin homologue gene
PUVA	psoralen with UVA radiation
PY	person-years
py-py	pyrimidine-pyrimidine
<i>RAG-1</i>	recombinase activating gene-1
RANKL	receptor activator of NF-κB ligand
RBE	relative biological effect
REF-1	redox factor-1
RMB	red bone marrow
RMBK	Russian reactor Bolshoy Moschnosti Kanalniy
RR	relative risk
RTK	receptor tyrosine kinase
SaDa	Solar Data Base
SCC	squamous cell carcinomas
SCF	stem cell factor
SCT	spindle cell tumour

SED	Standard Erythema Dose
SHH	sonic hedgehog homologue signaling pathway
shRNA	short-hairpin RNA
SIR	standardized incidence ratio
<i>SMOH</i>	smoothened gene
SMR	standardized mortality ratio
SNPs	single nucleotide polymorphisms
SPECT	single photon emission computed tomography
Sv	sievert
TC	transcription-coupled
Th1	T helper1
ThO2	Thorium dioxide
TNF	tumour necrosis factor
TOMS	Total Ozone Mapping Spectrometer
TPA	12- <i>O</i> -tetradecanoylphorbol-13-acetate
TYR	tyrosinase
UCA	urocanic acid
UKAEA	United Kingdom Atomic Energy Authority
UO ₂ ²⁺	uranyl ion
UV	Ultraviolet
UV-DDB	UV damaged DNA-binding
UVR	Ultraviolet radiation
WL	working-level
WLM/yr	working-level month/year
XAB2	XPA-binding protein-2
XPA	Xeroderma pigmentosum group A
XPF	Xeroderma pigmentosum group F
ZIP	Zoning Improvement Plan

