

ABBREVIATIONS AND ACRONYMS

A

ACH: acetylcholine
5-AED: androst-5-ene-3 β ,17 β -diol; 5-androstenediol
AET: aminoethyl thiuronium bromide
AFRRI: Armed Forces Radiobiology Research Institute
ALARA: as low as reasonably achievable
AND: 4-androstenedione
ARS: acute radiation syndrome (sickness)
AS101: ammonium trichloro (dioxethylene-0-0') tellurate
ASMase: acid sphingomyelinase
ATF6: activating transcription factor 6
ATM: ataxia telangiectasia mutated protein

B

BAT: Biodosimetry Assessment Tool
BAX: Bcl-2-associated X protein
BCG: Bacillus Calmette-Guérin
Bcl-2: B-cell lymphoma 2
Bcl-XL: B-cell lymphoma-extra large

C

cAMP: cyclic adenosine monophosphate
c-FLIP: caspase 8 and fas-associated protein with death domain-like apoptosis regulator
Ca-DTPA: calcium diethylenetriamine pentaacetic acid
Ca: calcium
CBRN: chemical, biological, radiological, and nuclear
CDK: cyclin-dependent kinases
CFU: colony-forming unit
CHOP: controlled amino acid therapy/enhancer binding protein homologous protein
CI: combined injury
CNS: central nervous systems
Co: cobalt
CRP: C-reactive protein
CSF: colony-stimulating factor

D

17-DMAG: 17-(dimethylaminoethylamino)-17-demethoxygeldanamycin
D: dose
DCA: dicentric assay
DHEA: dehydroepiandrosterone
DIME: delayed, immediate, minimal, expectant
DiPGE₂: 16,16-dimethyl prostaglandin E
DNA: deoxyribonucleic acid
DoD: Department of Defense
DRF: dose reduction factor
DTPA: diethylenetriamine pentaacetic acid
e-CFU: endogenous colony forming units
DTRA: Defense Threat Reduction Agency

E

E2: estradiol
ECM: extracellular matrix
ED₅₀: effective dose; the amount of drug that produces a therapeutic response in 50% of the subjects taking it
EDTA: ethylenediaminetetraacetic acid
EMP: electromagnetic pulse
EMT: emergency medical technician
EPD: early performance decrement

EPD: electronic personal dosimeter
EPR: electron paramagnetic resonance
ER: endoplasmic reticulum
ERW: enhanced radiation weapon
ETI: early transient incapacitation

F

FDA: Food and Drug Administration
FGF: fibroblast growth factor
FISH: fluorescence in situ hybridization
Flt-3: FMS-like tyrosine kinase 3
Flt-3L: FMS-like tyrosine kinase 3 ligand
FQ: fluoroquinolone
FRAT: First-Responders Radiological Assessment Triage

G

G-CSF: granulocyte colony-stimulating factor
G₁: gap 1 (phase of interphase)
G₂: gap 2 (phase of interphase)
GADD45 β : growth arrest- and DNA-damage-inducible, beta
GI: gastrointestinal
GM-CSF: granulocyte-macrophage colony-stimulating factor
GSK: glycogen synthase kinase

H

H₂O: water
HEPA: high-efficiency particulate air
HER-2: human epidermal growth factor receptor 2
HIAP-1: human inhibitor of apoptosis protein-1
HPBL: human peripheral blood lymphocyte
HSC: hematopoietic stem cell
5HT: 5 hydroxytryptamine

I

ICRP: International Commission on Radiological Protection
IL: interleukin
IM: intramuscular
iNOS: inducible nitric oxide synthase
IRE1: inositol-requiring 1
IV: intravenous

J

JNK: c-Jun N-terminal kinases

K

KGF: keratinocyte growth factor

L

LCL: lower confidence limit
LD_{50/30}: the dose required to kill 50% of the test population within 30 days
LD₅₀: the amount necessary to kill 50% of the subject population
LD_{50/60}: the dose at which 50% of the exposed population will die within 60 days
LET: linear energy transfer
LIMS: laboratory information management system
LPA: proapoptotic signal lysophosphatidic acid
LSK⁺: Lin⁺ Sca 1⁺ Kit⁺
LTC: leukotriene C

M

3D-MPL: 3D-monophosphoryl lipid A
M phase: mitotic phase
MAPK: mitogen-activated protein kinase
MEA: β -mercaptoethylamine
MEV: mega electron volts
MMP: matrix metalloproteinases
MnSOD: manganese superoxide dismutase
MOD: multiorgan dysfunction
MOF: multiorgan failure
MOPP: mission-oriented protective posture
MPG: mercaptopropionyl glycine
MRI: magnetic resonance imaging
MTF: medical treatment facility
mTOR: mammalian target of rapamycin

N

n: neutrons
N: nitrogen
NATO: North Atlantic Treaty Organization
NCRP: National Council on Radiation Protection
NF-IL6: nuclear factor interleukin 6
NF κ B: nuclear factor κ -light-chain-enhancer of activated B
NO: nitric oxide

O

O, O₂: oxygen
OEG: operational exposure guidance
OTP: octadecenyl thiophosphate

P13K: phosphatidylinositol 3-kinases
p53: protein 53
PAF: platelet-activating factor
PBL: peripheral blood lymphocyte
PCC: premature chromosome condensation
PDF: portable document format
PEG-400: polyethylene glycol 400
pegG-CSF: pegfilgrastim
PERK: protein kinase RNA-like endoplasmic reticulum kinase
PMN: polymorphonuclear leukocytes
PPE: personal protective equipment
PPF: paired-pulse facilitation
PTSD: posttraumatic stress disorder

R

RBE: relative biologic effectiveness
RDD: radiological dispersal device
RED: radiological exposure device
rem: roentgen equivalents mamal
rhGM-CSF: human recombinant GM-CSF
RI: radiation injury
RIF: radiation-induced fibrosis
ROS: reactive oxygen species

S

S: synthesis (phase of interphase)
SAA: serum amyloid A
SALT: sort, assess, life-saving interventions, treatment and/or transport
SCBA: self-contained breathing apparatus
SED: skin erythema disease
SMC: structural maintenance of chromosomes
SOD: superoxide dismutase
START: simple triage and rapid treatment

T

TE: time to emesis
TGF- β : transforming growth factor β
TLD: thermoluminescent dosimeter
TLR: toll-like receptor
TNF- α : tumor necrosis factor alpha
TNT: trinitrotoluene

U

UCL: upper confidence interval

X

XIAP: X-linked inhibitor of apoptosis protein

Z

Zn: zinc
Zn-DTPA: zinc diethylenetriamine pentaacetate