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LIST OF ABBREVIATIONS

6-4PPs	: (6-4) Photoproducts
ABO	: The A, B, and O blood groups
ALT	: Alanine Transaminase
AMgL	: Acute megakaryocytic leukemia
AML	: Acute myeloid leukemia
AMMoL	: Acute myelomonocytic leukemia
AMoL	: Acute monoblastic leukemia
AP	: Apurinic/aprimidinic site
APL	: Acute promyelocytic leukemia
APN	: AP-endonuclease
Ara-C	: Cytosine arabinoside
ara-CTP	: 1- β -D arabinofuranylcytosinetriphosphate
AST	: Aspartate transaminase
ASXL1	: Additional sex combs like 1
ATP	: Adenosine triphosphate
Bach1	: BRCA1-Associated C-Terminal Helicase 1
BER	: Base excision repair
BRCA1	: Breast cancer 1
BRCA2	: Breast cancer 2
Brip1	: BRCA1 interacting protein 1
CA	: Chromosomal aberrations
CAE	: Chloroacetate esterase
CAK	: Cyclin-dependent kinase - activating kinase
CBFB	: Core-binding factor, beta subunit
CEBPA	: CCAAT/enhancer-binding protein α
CD	: Cluster of differentiation
CDC	: Cell Division Cycle
CDC9	: Cell cycle mutant cdc9
CDK	: Cyclin-dependent kinase
Ch11	: Cell adhesion molecule L1-like
CN-AML	: Cytogenetically normal acute myeloid leukemia
CNS	: Central nervous system
CPDs	: Cyclobutane pyrimidine dimmers
CR	: Complete remission
CR1	: First Complete Remission

CS	: Cockayne's syndrome
CSF	: Cerebrospinal fluid
CSA	: Cockayne syndrome A
CSB	: Cockayne syndrome B
CYP1A1	: Cytochrome P450, family 1, subfamily A, polypeptide 1
dCMP	: Deoxycytidylate
DDB	: Damage-specific DNA binding protein
DEK	: DEK proto-oncogene
DFS	: Disease-free Survival
DIC	: Disseminated intravascular coagulation
DNA	: Deoxyribonucleic acid
DNA-PKcs	: DNA-protein kinase catalytic subunit
DNL4	: DNA ligase (ATP) DNL4
DNMT3A	: DNA (cytosine-5-)-methyltransferase 3 alpha
DRC	: DNA repair capacity
DSB	: Double strand breaks
dsDNA	: Double stranded DNA
Eco	: <i>Escherichia coli</i>
EDTA	: Ethylenediaminetetraacetic acid
EFS	: Event-free survival
ERCC2	: Excision repair cross-complementing group 2
ETO	: Eight twenty one, myeloid Translocation gene on chromosome 8
EVII	: Ecotropic virus integration site 1 protein homolog
EXO1	: Exonuclease 1
EZH2	: Enhancer of zeste homolog 2
FAB	: French-American-British
FancJ	: Fanconi anemia group J protein
FCM	: Flow cytometry
FEN1	: Flap structure-specific endonuclease 1
FISH	: Fluorescence in situ hybridization
FLT3	: Fms-related tyrosine kinase 3
FLT3-ITD	: Fms-related tyrosine kinase 3 - internal tandem duplication
FPD	: Familial platelet disorder
GGNER	: Global genome nucleotide excision repair
G-CSF	: Granulocyte colony-stimulating factor
GM-CSF	: Granulocyte-macrophage colony-stimulating factor

GPIIb/IIIa	: Glycoprotein IIb/IIIa
GVL	: Graft-versus-leukemia
HD1	: Helicase domain 1
HD2	: Helicase domain 2
HRR	: Homologous recombination repair
HSCT	: Hematopoietic stem cell transplantation
HLA	: Human leukocyte antigen
HLA-DR	: Human leukocyte antigen-DR
HR23B	: Human homologue of the yeast protein RAD23
IDH1	: Isocitrate dehydrogenase 1 (NADP+), soluble
IDH2	: Isocitrate dehydrogenase 2 (NADP+), mitochondrial
IDL	: insertion/deletion loops
IT	: Intrathecal
KIT	: V-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog
LIF1	: Leukemia Inhibitory Factor 1
MAT1	: Menage a trios (CDK-activating kinase assembly factor)
MDR1	: Multidrug resistance 1
MDS	: Myelodysplastic syndromes
MGT1	: O-6-MethylGuanine-DNA methylTransferase
MKLI	: Megakaryoblastic Leukemia (Translocation) 1
MLL	: Myeloid/lymphoid, or mixed-lineage, leukemia (trithorax homolog, <i>Drosophila</i>)
MLLT3	: Myeloid/Lymphoid Or Mixed-Lineage Leukemia Translocated To Chromosome 3
MMR	: Mismatch repair
MMS4	: Methyl methanesulfonate sensitive mutant
MPO	: Myeloperoxidase
MRC	: Medical Research Council (United Kingdom)
MRE11	: Meiotic recombination 11 homolog A
MSD	: Matched sibling donor
MSH	: MutS Homolog
MUTL	: Mutator L
MUTS	: Mutator S
MUS81	: Structure-Specific Endonuclease Subunit
MYH11	: Myosin, heavy chain 11, smooth muscle
NADP	: Nicotinamide adenine dinucleotide phosphate
NBS1	: Nibrin

NCI	: National cancer institute (Egypt)
NER	: Nucleotide excision repair
NHEJ	: Non-homologous end-joining
NK	: Natural Killer
<i>NPM1</i>	: Nucleophosmin (Nucleolar Phosphoprotein B23, Numatrin)
NQO1	: NAD(P)H dehydrogenase, quinone 1
<i>NRAS</i>	: Neuroblastoma RAS viral (v-ras) oncogene homolog
NSE	: Nonspecific esterase
<i>NUP214</i>	: Nuclear pore complex protein Nup214
OS	: Overall survival
PAS	: Periodic acid- Schiff
Pax5	: Paired box protein Pax-5
PCNA	: Proliferating cell nuclear antigen
PCR	: Polymerase Chain Reaction
<i>PEBP2B</i>	: Polyomavirus Enhancer-binding Protein 2 beta
<i>PML</i>	: Promyelocytic leukemia
PMS1	: Postmeiotic segregation increased 1
Pol	: DNA polymerase
Pst	: <i>Providencia stuartii</i>
RAD	: Radiation-repair genes
<i>RARA</i>	: Retinoic acid receptor, alpha
<i>RAS</i>	: Family of retrovirus-associated DNA sequences
RBC	: Red blood cell
<i>RBM15</i>	: RNA Binding Motif Protein 15
RecA	: RecA bacterial DNA recombination protein
RFLP	: Restriction fragment length polymorphism
RFS	: Relapse-free survival
RNA	: Ribonucleic acid
RNAP	: RNA Polymerase
RPA	: Replication protein A
<i>RPNI</i>	: Ribophorin I
rRNA	: Ribosomal RNA
RT-PCR	: Reverse transcriptase-polymerase chain reaction
<i>RUNX1</i>	: Runt-related transcription factor 1
<i>RUNX1T1</i>	: Runt-related transcription factor 1; translocated to chromosome 1 (cyclin D-related)
SBB	: Sudan black B

SF2	: Superfamily 2
ssDNA	: Single stranded DNA
Sty	: <i>Salmonella typhi</i>
t-AML	: Therapy-related acute myeloid leukemia
Taq	: <i>Thermus aquaticus</i>
TCNER	: Transcription-coupled nucleotide excision repair
TCR	: Transcription-coupled repair
Tel	: Translocation E26 transforming-specific leukaemia
TET2	: Tet oncogene family member 2
TFIIH	: Transcription factor II H
TFIIS	: Transcription factor II S
TP53	: Tumor protein p53
tRNA	: Transfer RNA
TRM	: Transplant-related mortality
TTD	: Trichothiodystrophy
TTDA	: Trichothiodystrophy A
UV-DDB	: UV-damaged DNA-binding protein
UVSS	: UV-sensitive syndrome
v-ras	: RAS viral oncogene
WBC	: White blood cell
WHO	: World Health Organization
WT1	: Wilms tumor 1
XP	: Xeroderma pigmentosum
XPA	: Xeroderma pigmentosum group A
XPB	: Xeroderma pigmentosum group B
XPC	: Xeroderma pigmentosum group C
XPD	: Xeroderma pigmentosum group D
XPF	: Xeroderma pigmentosum group F
XPG	: Xeroderma pigmentosum group G
XPV	: Xeroderma pigmentosum variant
XRCC4	: X-Ray Repair Complementing Defective Repair In Chinese Hamster Cells 4