

LIST OF IMPORTANT ABBREVIATIONS

α	Alpha
δ	Delta
γ	Gamma
$^{\circ}\text{C}$	Degree Celsius
μg	Microgram
μl	Microliter
μM	Micromolar
$\times\text{g}$	Centrifugal Force
%	Percentage
AAS	Atomic Absorption Spectroscopy
Ab	Antibody
Ab/Am	Antibiotic Antimycotic
Abs	Absorbency
ACK	Ammonium Chloride Potassium
Ag	Antigen
AIDS	Acquired Immunodeficiency Syndrome
Ala	Alanine
Arg	Arginine
ARV	AIDS-Associated Retrovirus
ATCC	American Type Culture Collection
ATP	Adenosine Triphosphate
BCG	Bacillus of Culmett and Guerin
bp	Base Pair

BSA	Bovine Serum Albumin
Cys/C	Cystein
CAM	Camptothecin
CBA	Cytometric Bead Array
CCR5	Chemokine Co-Receptor for HIV
CD	Cluster of Differentiation
cm	Centimeter
CMI	Cell-Mediated Immunity
CMV	Cytomegalovirus
Co	Cobalt
CO₂	Carbon Dioxide
CV	Coefficient of Variation
DFO	Desferrioxamine
dH₂O	Distilled Water
DNA	Deoxyribonucleic Acid
EDTA	Ethylenediaminetetraacetic Acid
ELISA	Enzyme-Linked Immunosorbent Assay
<i>env</i>	Envelope
EPR	Electron Paramagnetic Resonance
EXAFS	Extended X-Ray Absorption Fine Structure
FBS/FCS	Fetal Bovine/Calf Serum
FDA	Food and Drug Administration
Fe	Iron
Fe³⁺	Ferric State of Iron
Fe²⁺	Ferrous state of iron
FeSO₄	Iron Sulphate

FITC	Fluorescein Isothiocyanate
FO/ F/D	Ferrioxamine
<i>gag</i>	Group-Specific Antigen
Glu	Glutamic Acid
Gly/G	Glycine
gp41	Glycoprotein 41
gp120	Glycoprotein 120
gp160	Glycoprotein 160
GRID	Gay-Related Immune Deficiency Syndrome
GS	Gentamycin Sulphate
HAART	Highly Active Anti-Retroviral Therapy
Hb	Hemoglobin
HBED	N, N'-bis (2-hydroxybenzyl) ethylenediamine-N, N'-diacetic acid
HCl	Hydrochloric Acid
HCV	Hepatitis C Virus
HFE	Hereditary Hemochromatosis Protein
HIV	Human Immunodeficiency Virus
HIV-1	Human Immunodeficiency Virus Type-1
HIV-2	Human Immunodeficiency Virus Type-2
HNO₃	Nitric Acid
Hp	Haptoglobin
Hsp 70	Heat Shock Protein 70
Hsps	Heat Shock Proteins
HTLV-III	Human T Cell Lymphotropic Virus type III

ICAM	Intracellular Adhesion Molecules
ICL670	Deferasirox
ICP-AES	Inductively Coupled Plasma Atomic Emission Spectroscopy
INF	Interferon
INF-γ	Interferon Gamma
iNOS	Inducible Nitric Oxide Synthase
IL	Interleukin
IN	Integrase
IS	<i>Isomer Shift</i>
kDa	Kilodalton
L1	Deferiprone
LAV	Lymphadenopathy Associated Virus
LPI	Labile Plasma Iron
LTRs	Long Terminal Repeats
M	Molar
MABA	Microplate Alamar Blue Assay
<i>M.bovis</i>	<i>Mycobacterium bovis</i>
MCP-1	Monocyte Chemotactic Protein 1
MFI	Mean Fluorescence Intensity
mg	Milligram
min	Minute
MIP	Macrophage Inflammatory Protein
ml	Milliliter
mm	Millimeter
mM	Millimolar

mRNA	Messenger Ribonucleic Acid
MRC	Medical Research Council
MRI	Magnetic Resonance Imaging
<i>Mtb/M.tuberculosis</i>	<i>Mycobacterium tuberculosis</i>
MTT	3-(4, 5-Dimethylthiazol-2-yl)-2, 5-Diphenyl Tetrazolium Bromide
NaCl	Sodium Chloride
NADH	Nicotinamide Adenine Dinucleotide
NaHBED	N, N'-bis (2-hydroxybenzyl) ethylenediamine-N, N'-diacetic acid monosodium salt
NaOH	Sodium Hydroxide
<i>nef</i>	Negative Replication Factor
NF-κB	Nuclear Factor-κB
NICD	National Institute for Communicable Diseases
NK	Natural Killer
nm	Nanometer
NO	Nitric Oxide
NOS	Nitric Oxide Synthase
NRF	National Research Foundation
OIs	Opportunistic Infections
P	Protein
PBLs	Peripheral Blood Lymphocytes
PBMCs	Peripheral Blood Mononuclear Cells
PBS	Phosphate Buffered Saline
PCD	Programmed Cell Death

PCR	Polymerase Chain Reaction
PDIMs	Phthiocerol Dimycocerosates
PE	Phycoerythrin
PHA-P	Phytohemagglutinin from <i>Phaseolus Vulgaris</i>
PI	Propidium Iodide
PIH	Pyridoxal Isonicotinoyl Hydrazone
<i>pol</i>	Polymerase
ppm	Parts Per Million
PR	Protease
Pro	Proline
PS	Phosphatidylserine
<i>QS</i>	Quadrupole Splitting
<i>rev</i>	Anti-Repression Transactivator Protein
<i>Rh</i>	<i>Rhodium</i>
RNA	Ribonucleic Acid
RNase	Ribonuclease A
ROS	Reactive Oxygen Species
RPMI	Rosewell Park Memorial Institute
RR	Ribonucleotide Reductase
RT	Reverse Transcriptase
SDS	Sodium Dodecyl Sulphate
SIV	Simian Immunodeficiency Virus
<i>tat</i>	Trans-Activator of Transcription
TB	Tuberculosis
TBE	Tris-Borate-EDTA
T_H	T Helper

Th1	T Helper Type-1
Th2	T helper Type-2
TMB	Tetramethylbenzidine
TNF	Tumor Necrosis Factor
TNF-α	Tumor Necrosis Factor Alpha
tRNA	Transfer RNA
Trp	Tryptophan
UNAIDS	The Joint United Nations Programme on HIV/AIDS
URL	Uniform Resource Locator
UV	Ultraviolet
V	Five
<i>vif</i>	Virion Infectivity Factor
<i>vpr</i>	Viral Protein R
<i>vpu</i>	Viral Protein U
WHO	World Health Organization
www	world wide web
Zeeman AAS	Zeeman Atomic Absorption Spectrophotometry