

## Abbreviations

Å	Angstrom (a unit of length equal to 1 hundred-millionth of a centimetre, or 1 hundredth of a nanometre)
AA	<i>Aedes albopictus</i> (cells) amino acid
AAVLD	American Association of Veterinary Laboratory Diagnosticians
ABADRL	Arthropod-Borne Animal Diseases Research Laboratory (USDA/ARS, USA)
ac-ELISA	antigen capture ELISA
ACIAR	Australian Centre for International Agricultural Research
AcNPV	nuclear polyhedrosis virus of <i>Autographa californica</i>
AFSSA	French Agency for Food Safety ( <i>Agence française de Sécurité sanitaire des Aliments</i> )
AGE	agarose gel electrophoresis
AGID	agar gel immunodiffusion
AHS	African horse sickness
AHSV	African horse sickness virus
AKAV	Akabane virus
AMV	avian myeloblastosis virus
ANDV	Andasibe virus
ANOVA	analysis of variance
APC	antigen presenting cells
APHIS	Animal and Plant Health Inspection Service (USDA)
AQIS	Australian Quarantine and Inspection Service
ARC	Agricultural Research Council, Onderstepoort, South Africa
ARS	Agricultural Research Service (USDA)
asl	above sea level
ASL	local veterinary office ( <i>Azienda sanitaria locale</i> ), Italy
AVHRR	advanced very high resolution radiometer
AWS	automatic weather station
BAV	Banna virus
BCS	blind calf syndrome
BHK	baby hamster kidney
Bm-1 CPV	<i>Bombyx mori</i> cytoplasmic polyhedrosis virus-1
bp	base pair
BSR	a clone of baby hamster kidney cell
BT	bluetongue
BTV	bluetongue virus
CCF	cross-correlation function
CCID	cell culture infective dose
cDNA	complementary DNA
CEID	chick embryo infective dose
c-ELISA	competitive ELISA
CESME	National Reference Centre for Exotic Diseases, Teramo, Italy ( <i>Centro Studi Malattie Esotiche</i> )

## Abbreviations

CFIA	Canadian Food Inspection Agency
CFT	complement fixation test
cfu	colony-forming unit
CGLV	Changuinola virus
CGV	Chobar Gorge virus
CIRAD	Centre for international co-operation in agronomic research for development, France ( <i>Centre de coopération internationale en recherche agronomique pour le développement</i> )
CLP	core-like particle
CNUV	Chenuda virus
COI	cytochrome oxidase subunit I
CORV	Corriparta virus
COV	Codajas virus
CPAE	calf pulmonary artery endothelium
CPE	cytopathic effect
CPV	cytoplasmic polyhedrosis virus
CRI	clinical reaction index
Cryo-EM	cryoelectron micrographs
CT	cycle threshold
CTFV	Colorado tick fever virus
CTL	cytotoxic T lymphocyte
CVO	Chief Veterinary Officer
DB	dissemination barrier
DC	dendritic cells
DDSV	Departmental Directorate of Veterinary Services, France ( <i>Direction départementale des services vétérinaires</i> )
DEM	digital elevation model
DGAL	National Food Directorate, France ( <i>Direction générale de l'Alimentation</i> )
DIA	dot immunobinding assay
DMEM	Dulbecco's modified Eagle's medium
DNA	deoxyribonucleic acid
dpi	days post infection
ds	double-stranded
dsRNA	double-stranded RNA
EC	European Commission
ECE	embryonated chicken egg
EDTA	ethylene-diaminetetra-acetic acid
EEA	European Environment Agency
EEV	equine encephalosis virus
EGF	epidermal growth factor
EHD	epizootic haemorrhagic disease of deer
EHDV	epizootic haemorrhagic disease of deer virus
EI	extrinsic incubation period
EID	Interdepartmental group for mosquito control, France ( <i>Entente interdépartementale pour la démoustication</i> )
ELD	egg lethal dose
ELISA	enzyme-linked immunosorbent assay
EM	electron microscopy

EMBL	European Molecular Biology Laboratory
EMEM	Eagle's minimum essential medium
ENSO	El Niño/Southern Oscillation
epg	eggs per gram
ER	endoplasmic reticulum
EST	expressed sequence tag
EU	European Union
EUBV	Eubenberg virus
EXANDIS	Exotic Animal Disease Preparedness Program, Australia
FAO	Food and Agriculture Organization
FBS	foetal bovine serum
FCS	foetal calf serum
fg	femtogram
FP	forward primer
FRET	fluorescence resonance energy transfer
GEL	gelsolin
GI	GenInfo identifier
GIS	geographic information system global imaging system
GIV	Great Island virus
GPS	global positioning system
GuSCN	guanidine thiocyanates
HCT	haematocrit
HD	haemorrhagic disease hydrophobic domain
HGB	haemoglobin
HI	haemagglutination inhibition
HIT	herd immunity threshold
Hyg B	hygromycin B
IAH	Institute for Animal Health, Pirbright, United Kingdom
IB	Ibaraki
ICTV	International Committee for the Taxonomy of Viruses
IDW	inverse distance weighted
i-ELISA	indirect ELISA
IERIV	Ieri virus
IETS	International Embryo Transfer Society
IF	immunofluorescence
IFEV	Ife virus
IF/R-1	internal primers
IGM	Military Geographical Institute, Santiago, Chile ( <i>Instituto Geográfico Militar</i> )
IL	interleukin
INTA	National Institute of Agricultural Technology, Argentina ( <i>Instituto Nacional de Tecnología Agropecuaria</i> )
IP	immunoperoxidase infection prevalence
ISVP	infectious subviral particles
ITS	internal transcribed spacer

## Abbreviations

ITUV	Itupiranga virus
IU	international unit
IZS	Istituto Zooprofilattico Sperimentale, Italy
IZSA&M	Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise 'G. Caporale', Teramo, Italy
JAPV	Japanaut virus
JE	Japanese encephalitis
kD	kiloDalton
KDV	Kadipiro virus
KMPV	Kammavanpettai virus
KNMI	Royal Netherlands Meteorological Institute, De Bilt, The Netherlands ( <i>Het Koninklijke Nederlands Meteorologisch Instituut</i> )
KOH	potassium hydroxide
L1	large segment
LCV	Lake Clarendon virus
LD	lethal dose
LDCC	Local Disease Control Centre, Italy
LDR	light-dependent resistor
LEBV	Lebombo virus
LED	light-emitting diode
LOD	limit of detection
LSD	least significant difference
LST	land surface temperature
M4	medium segment
MAb	monoclonal antibody
MARU	Middle America Research Unit
MATV	Matucare virus
MCH	mean cellular haemoglobin content by mass
MCHC	mean cellular haemoglobin concentration
MCV	mean red blood cell volume
MEB	mid-gut escape barrier
MeHgOH	methyl mercury hydroxide
MEM	minimum essential medium
MEVP	membrane enveloped virus particles
MIB	mid-gut infection barrier
MIR	middle infra-red reflectance
MLV	modified-live virus
MMLV	Moloney murine leukaemia virus
MMOH	methyl mercury hydroxide
MODIS	moderate resolution imaging spectroradiometer
mRNA	messenger ribonucleic acid
MRV	mammalian orthoreovirus
mtDNA	mitochondrial DNA
MTSN	microtitre serum neutralisation
MTT	3-(4,5, dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide
NAMP	National Arbovirus Monitoring Program, Australia
NAMRU	Naval Medical Research Unit, USA

NAQS	Northern Australia Quarantine Strategy
NASA	National Aeronautics and Space Administration, USA
NCBI	National Center for Biotechnology Information, USA
NDCC	National Disease Control Centre, Italy
NDEV	Ndelle virus
NDVI	normalised difference vegetation index
NERC	Natural Environmental Research Council, Oxford, UK
NIS	National Information System, Italy
NLRV	Nilaparvata lugens reovirus
nPCR	nested PCR
NS	non-structural
NS1	non-structural (virus protein) 1
NSP	non-structural protein
NSW	New South Wales, Australia
NT	nucleotide
NTC	no template control
NVSL	National Veterinary Services Laboratory, Ames, USA
OBP	Onderstepoort Biological Products, Onderstepoort, South Africa
OD	optical density
OIE	Office International des Epizooties (World Organisation for Animal Health)
opg	oocysts per gram
ORUV	Orungo virus
OVI	Onderstepoort Veterinary Institute, Onderstepoort, South Africa
PALV	Palyam virus
PAUP	phylogenetic analysis using parsimony
PBMC	peripheral blood mononuclear cells
PBS	phosphate-buffered saline
pc	post challenge
PCB	printed circuit board
PCR	polymerase chain reaction
pfu	plaque-forming units
pg	picogram
PHSV	Peruvian horse sickness virus
pi	post inoculation
P <sub>i</sub>	monophosphate
pI	post infection
PP <sub>i</sub>	pyrophosphate
PSEK	porcine stable equine kidney
pv	post vaccination
R&D	research and development
RAPD	random amplification of polymorphic DNA
RAPID	ruggedised advanced pathogen identification device
RBC	red blood cell
RDCC	Regional Disease Control Centre, Italy
RDV	rice dwarf virus
RE	restriction endonuclease digest

## Abbreviations

RELSU	Reggio Emilia Local Sanitary Unit, Italy
REML	restricted maximum likelihood
RNA	ribonucleic acid
RPL	ribosomal protein L
RRSV	rice ragged stunt virus
RSA	Republic of South Africa
RT	reverse transcriptase
RV	rotavirus
S7	small segment
SC	seroconversion
SCC	somatic cell count
SCRV	St Croix River virus
SeaWiFS	Sea-viewing Wide Field-of-view Sensor (NASA)
SECYT	Science and Technology Secretary, Argentina ( <i>Secretaría de Ciencia, Tecnología e Innovación Productiva</i> )
sem	standard error means
SENASA	National Animal Health Service, Argentina ( <i>Servicio Nacional de Sanidad y Calidad Agroalimentaria</i> )
SGEB	salivary gland escape barrier
SGIB	salivary gland infection barrier
SN	serum neutralisation
SNT	serum neutralisation test
SPF	specific pathogen-free
SPM	spatial process model
SPS	serologically positive sentinel
SR	seroconversion rate
ssRNA	single-stranded RNA
STD	standard deviation
TAIR	air temperature
TC	tissue culture transcriptase complex
TCID	tissue cell infective dose
TF/R-1	terminal primers
T <sub>m</sub>	temperature
TMEV	Tembe virus
TNF	tumour necrosis factor
TOT	transovarial transmission
TOTB	transovarial transmission barrier
TPF	total photon flux
TRV	Tracambe virus
UK	United Kingdom
UMAV	Umatilla virus
UNESP	University of São Paulo State, Brazil ( <i>Universidade Estadual Paulista 'Júlio Mesquita Filho'</i> )
UNMIK	United Nations interim administration mission in Kosovo
USA	United States of America
USAHA	United States Animal Health Association

USDA	United States Department of Agriculture
VAERS	Vaccine Adverse Event Reporting System (Centers for Disease Control and Prevention and the Food and Drug Administration, USA)
Vero (cell lines)	African green monkey cell lines
VI	virus isolation
VIB	viral inclusion bodies
VLP	virus-like particle
VMRD	Veterinary Medical Research and Development, Pullman, United States of America
VN	virus neutralisation virus neutralising
VNT	virus neutralisation test
VP	viral protein virion protein
VS	viral suspension
v/v	volume/volume
WALV	Wallal virus
WARV	Warrego virus
WC-1	white collar-1
WGRV	Wongorr virus
WHO	World Health Organization
WMV	Wad Medani virus
WTO	World Trade Organization
YOV	Yunnan orbivirus