

Australian Porcine Circoviruses

This thesis is presented for the degree of
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By

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Declaration

I declare that this is my own account of my research and contains work that has not previously been submitted for a degree at any tertiary educational institution.

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Abbreviations

AA	amino acid
BBTV	banana bunchy top virus
BCV	bovine circovirus
BFDV	beak and feather disease virus
bp	base pairs
CaCV	canary circovirus
CAV	chicken anaemia virus
CFDV	coconut foliar decay virus
CoCV	pigeon (columbid) circovirus
CMV	cytomegalovirus
CPE	cytopathic effect
CT	congenital tremor
DAB	diaminobenzidine
dH ₂ O	distilled water
DNA	deoxyribonucleic acid
dsDNA	double stranded DNA
dNTP	dinucleotide triphosphate
DuCV	duck circovirus
DTT	dithiothreitol
EE	exudative epidermitis
ELISA	enzyme-linked immunosorbent assay
EM	electron microscopy
FCS	fading chick syndrome
GCV	goose circovirus
HPV	human papillomavirus
HRP	horseradish peroxidase
IFA	immunofluorescence assay
IL	interleukin
IPMA	immunoperoxidase monolayer assay
ISH	<i>in situ</i> hybridisation
LD	lymphoid depletion
Mab	monoclonal antibody
MCP	monocyte chemoattractant protein
NCBI	national centre for biotechnology information (USA)
nt	nucleotide
OCV	ostrich circovirus
ORF	open reading frame
PBMC	peripheral blood mononuclear cells
PCR	polymerase chain reaction
PCV	porcine circovirus
PDNS	porcine dermatitis and nephropathy syndrome
PMWS	postweaning multisystemic wasting syndrome
PNP	proliferative and necrotising pneumonia
PRDC	porcine respiratory disease complex
PRRSV	porcine reproductive and respiratory syndrome virus
Rep	replication protein
RF	replicative form
RNA	ribonucleic acid
RT-PCR	reverse transcriptase polymerase chain reaction
SCSV	subterranean clover stunt virus
SPF	specific pathogen free
ssDNA	single stranded DNA

TLMV
TTV
UTR
VP

TTV-like minivirus
TT virus
untranslated region
viral proteins

List of Units

%	percent
°C	degrees celsius
cm ²	squared centimetre
g	gram
h	hours
kb	kilobase
kDa	kilodalton
L	litre
M	molar
mg	milligram
min	minutes
μL	microlitre
mL	millilitre
μM	micromolar
mM	millimolar
ng	nanograms
nm	nanometres
pmoles	picomoles
s	seconds
V	volts
w/v	weight per volume
x g	gravity

Communications

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Raye W, Buddle JR, **Muhling J**, Warfe L and Wilcox GE (2002). The occurrence of porcine circovirus in Australia in the absence of any associated disease. *XIIIth International Congress of Virology, The World of Microbes*, 27 July–1 August, Paris, France.

Muhling J, Raye W, Buddle JR and Wilcox GE (2001). Sequence variation in porcine circovirus strains isolated in Australia. *3rd Veterinary Virology in Australia Conference*, The Spradbrow Connection, 26–28 September, Sydney, Australia.

