Development and characterisation of buparvaquone nanosuspensions for pulmonary delivery in the treatment of *Pneumocystis* pneumonia

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To my family

with plenty of love and gratitude

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ABBREVIATIONS

SXT	Trimethoprim and Sulfamethoxazole
ATQ	Atovaquone
BPQ	Buparvaquone
PcP	*Pneumocystis* pneumonia
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus
AIDS	Acquired Immunodeficiency Syndrome
DPI	Dry Powder Inhaler
pMDI	Pressurized metered dose inhaler
HLB	Hydrophilic-lipophilic balance
PVA	Polyvinyl alcohol
PVP	Polyvinyl pyrrolidone
DPPC	Dipalmitoylphosphatidylcholine
FDA	Food and Drug Administration Office (US Government)
GRAS	Generally Recognized As Safe
LD	Laser Diffractometry
PCS	Photon Correlation Spectroscopy
PI	Polydispersity Index
LDA	Laser Doppler Anemometry
NaCl	Sodium chloride
XRPD	X-Ray powder diffraction
SEM	Scaning Electron Microscope
MMAD	Mass Median Aerodynamic Diameter
GSD	Geometric Standard Deviation
MMD	Mass Median Diameter
ACI	Andersen Cascade Impactor
VMD	Volume Median Diameter
DQ	Diff-Quik® stain
BB	Bis-benzimide stain
H&E	Hematoxylin and eosin stain
HBSS	Hank's balanced salt solution
HPLC	High pressure liquid chromatography

OIF	Oild immersion field
SFD	Spray-freeze drying process
SD	Spray drying process
TMDSC	Temperature Modulated Differential Scanning Calorimetry
DVS	Dynamic vapour sorption
T_g'	Transicion glass temperature
NS	Nanosuspension
TBA	Ter-butyl alcohol

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