

LIST OF ABBREVIATIONS

Abbreviation	Full Form
COPD	Chronic obstructive pulmonary disease
WHO	World Health Organization
IL	Interleukins
BALF	Bronchoalveolar lavage fluid
Bp	Base pair
CF	Cystic Fibrosis
NT	Neurotrophins
CFTR	Cystic fibrosis transmembrane conductance regulator
DAPI	4',6-diamidino-2-phenylindole
DEPC	Diethyl polycarbonate
DPI	Dry Powder for Inhalation
DOQ	Degree of Quarterisation
dsRNA	double-stranded RNA
ED	Emitted dose
EDC	N-(3-dimethylaminopropyl)-N'-ethyl carbodiimide
EDTA	Ethylene Diamine Tetra Acetic Acid
DMEM	Dulbecco's minimum essential medium with Earls salt
BDNF	Brain Derived Neurotrophic factor
EtBr	Ethidium bromide
FACS	Fluorescence activated cell sorting
FAM-NC-siRNA	FAM labelled negative control siRNA
FBS	Fetal bovine serum
FPF	Fine particle fraction
FSC	Forward Scatter
FT-IR	Fourier transform infrared spectroscopy
G/C	Guanine/cytosine
GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
GSD	Geometric standard deviation
bPEI	Branched Polyethylenimine
IAEC	Institutional Animal Ethical Committee
KBr	Potassium bromide
kDA	Kilo Dalton
L2K	Lipofectamine 2000
LDH	lactate dehydrogenase

MMWC	Medium Molecular Weight Chitosan
MES	2-(N-morpholino) ethane sulfonic acid
mL	Millilitre
MMAD	Mean mass aerodynamic diameter
MTT	(3-(4, 5-dimethylthiazole-2-yl)-2, 5-di-phenyl tetrazolium bromide
MW	Molecular weight
NC siRNA	Negative control siRNA, scrambled sequence siRNA
NFW	Nuclease free water
NHS	N-hydroxysuccinimide
NMR	Nuclear magnetic resonance spectroscopy
OD	Optical Density
PBS	Phosphate-buffered saline
PDI	Polydispersity index
PEG	Polyethylene glycol
PEI	Polyethylenimine
RISC	RNA-induced silencing complex
RNAi	RNA interference
RSD	Relative standard deviation
RT	Reverse transcription
RT-PCR	Real time-polymerase chain reaction
SD	Standard deviation
siRNA	Small Interfering RNA
TBE	Tris-borate-EDTA
TEM	Transmission Electron Microscopy
Tg'	Glass transition temperature
shRNA	Short hairpin RNA
pDNA	Plasmid DNA
TNF- α	Tumor necrosis factor
SOCS	Suppressor of cytokines signalling
MDI	Metered dose inhaler
PAMAM	Polyamidoamines
UA	Urocanic acid
PC	Piperazine-2 carboxylic acid
PA	3-Pyridyl acetic acid
TMC	Trimethylated Chitosan
NMP	N-Methyl Pyrrolidone
NaOH	Sodium Hydroxide

TNBS	2, 4, 6- Trinitrobenzene 1-Sulphonic acid
DOQ	Degree of Quaternization
OVA	Ovalbumin
IAEC	Institutional Animal Ethics Committee
CPCSEA	Committee for the Purpose of Control and Supervision of Experiments Animals