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Lipid Drug Delivery Systems for Brain Targeting

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Chapter II: Preparation and evaluation of Galantamine hydrobromide loaded anionic, cationic and chitosan SLNs

List of Abbreviations

AB	Absolute bioavailability
AD	Alzehimer's disease
ANOVA	Analysis of variance
APP	Amyloid precursor protein
AUC	Area under the curve
BBB	Blood Brain Barrier
BCSFB	Blood–cerebrospinal fluid barrier
C_{max}	Maximum concentration of drug
CMT	Carrier mediated transport
CNS	Central nervous system
CS	Chitosan
CSF	Cerebrospinal fluid
DLS	Dynamic light scattering
DSC	Differential scanning calorimetry
DTE	Drug targeting efficiency
DTP	Nose to brain direct transport percentage
EE	Entrapment efficiency
GalHBr	Galantamine hydrobromide
GMS	Glyceryl monostearate
GRAS	Generally regarded as safe
Grp	Group
HLB	Hydrophile-lipophile balance
HPLC	High performance liquid chromatography
IN	Intranasal
IS	Internal standard
IV	Intravenous
LC-MS/MS	Liquid chromatography tandem mass spectrometry
min	Minutes
MRT	Mean residence time

NA	Not applicable
NLCs	Nanostructured lipid carriers
NPs	Nanoparticles
PBS	Phosphate buffer saline
PDI	Polydispersity index
P-gp	P-glycoprotein
Plx1888	Poloxamer188
PS	Particle size
RE	Release efficiency
RMT	Receptor mediated transport
rpm	Rotation per minute
SA	Stearylamine
SD	Standard deviation
SDC	Sodium deoxycholate
SE	Standard error
SLNs	Solid lipid nanoparticles
$\mathbf{t_{1/2}}$	Half life time
TEM	Transmission electron microscope
Tf	Transferrin
TJs	Tight junctions
$\mathbf{T_{max}}$	Time of occurrence of maximum drug concentration
UV	Ultraviolet
w/o	Water in oil
w/w	Weight per weight
$\boldsymbol{\zeta}$	Zeta potential
$\boldsymbol{\lambda_{max}}$	Wavelength of maximum absorbance

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