Enhancement of Ropinirole brain delivery

A thesis submitted

by

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List of Abbreviations

AB Absolute bioavailability
ANOVA Analysis of variance

ANS Autonomic nervous system

AUC Area under the curve BBB Blood brain barrier

BCSF Blood–cerebrospinal fluid barrier

CI Crystallinity index

CGC Critical gel concentration
CMC Critical micelle concentration

CNS Central nervous systemCV Coefficient of variationDLS Dynamic light scattering

DSC Differential scanning calorimetry

DTE Drug targeting efficiency

DTP Nose to brain direct transport

DW Distilled water**ECF** Extracellular fluid

EE% Entrapment efficiency percentages

FTIR Fourier transform infrared

Gp Group

GRAS Generally regarded as safe

HLB Hydrophile lipophile balance

HPMC Hydroxypropyl methyl cellulose

i.n. Intranasal

IS Internal standard

i.v. Intravenous

LC-MS Liquid chromatography—mass spectrometry

mABs Monoclonal antibodies
MRT Mean residence time

mV millivolt

Mwt Molecular weight

nm Nanometer

NLCs Nanostructured lipid carriers

NVU Neurovascular unit **PAR** Peak area ratio

PBS Phosphate buffered saline

PC Phosphatidyl choline
PDI Polydispersity index
PEO Polyoxyethylene
PPO Poloxypropylene

PS Particle size
P407 Poloxamer 407
P188 Poloxamer 188

RES Reticuloendothelial system
RLS Restless leg syndrome
RP HCl Ropinirole Hydrochloride
rpm Revolution per minute

SEDDs Self-emulsifying drug delivery systems
SELF Self Emulsifying Lipidic Formulations

SD Standard deviation
SDC Sodium deoxycholate

SMEDDs Self-microemulsifying drug delivery systems

 $T_{sol-gel}$ Sol gel transition temperature

TEM Transmission electron microscope

 $egin{array}{ll} t_{1/2} & & \mbox{Half life time} \\ {\bf SA} & & \mbox{Stearylamine} \end{array}$

SLNs Solid lipid nanoparticles

UV ultravioletZP Zeta potential

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