Faculty of Pharmacy

Department of Pharmaceutics and Industrial Pharmacy

Formulation and Evaluation of Vesicular Systems for Enhanced Transdermal Drug Delivery

Thesis Submitted
By

Hanaa Adel Abdel Messih Seif
(Bachelor of pharmaceutical sciences, 2010)

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Under the supervision
Of

Prof. Dr. Ahmed Shawky Geneidi

Professor of Pharmaceutics and
Industrial Pharmacy

Faculty of Pharmacy
Ain Shams University

Prof. Dr. Samar Mansour Holayel

Professor of Pharmaceutics and
Industrial Pharmacy

Faculty of Pharmacy
Ain Shams University

Dr. Rania Aziz Helmy Ishak
Associate Prof. of Pharmaceutics and Industrial Pharmacy
Faculty of Pharmacy
Ain Shams University

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List of content

List of Abbreviations

3 D	Three dimensions
5-HT_3-RAs	5-HT_3 receptor-antagonists
ANOVA	Analysis of variance
ASCO	American Society of Clinical Oncology
AUC	Area Under the concentration Vs time curve
BAV	Bioavailability
CBD	Cannabidiol
CINV	Chemotherapy-induced nausea and vomiting
CLSM	Confocal laser scanning microscope
C_{max}	Maximum plasma drug concentration
CMC	Critical micelle concentration
CPP	Critical packing parameter
CREM	Cremophor RH 40
CTAB	Cetyl trimethylammonium bromide
CTZ	Chemoreceptor trigger zone
CYP2D6	Cytochrome P2D6
d	Desirability function
D	Diffusion coefficient
DHEW	Department of Health, Education & Welfare
DLS	Dynamic light scattering
DMSO	Dimethyl sulphoxide
DOE	Design of experiments
DSC	Differential scanning calorimetry
EA	Edge activator
EAPRU	Experiments and Advanced Pharmaceutical Research Unit
EE	Entrapment efficiency
EPC	Egg phosphatidylcholine
ER	Enhancement ratio
FA	Fatty acid
Flex	Flexosomes
F_{rel}	Relative Bioavailability

FT-IR	Fourier-transform infrared
H&E	Haematoxylin and Eosin
HLB	Hydrophilic-lipophilic balance
HPLC	High performance liquid chromatography
HR-TEM	High resolution transmission electron microscope
ICH	International Conference on Harmonization
IS	Internal standard
Jss	Steady state transdermal flux
Kp	Permeability coefficient
LC	Liquid chromatography
LC-MS/MS	Liquid Chromatography/Mass Spectrometry
LDA	Laser Doppler anemometry
LOD	Limit of detection
LOQ	Limit of quantitation
MASCC	Multinational Association of Supportive Care in Cancer
MLX	Meloxicam
MS	Mass spectrometry
Mw	Molecular weight
MWCO	Molecular weight cut off
n	Diffusional release exponent
NaC	Sodium cholate
NIH	National Institute of Health
NLC	Nanostructured lipid carriers
NPs	Nanoparticles
OS	Oral solution
PBS	Phosphate buffer saline
PC	Phosphatidylcholine
PC:EA	Phosphatidycholine to edge activator molar ratio
PDI	Polydispersity index
PE	Penetration Enhancer
PK	Pharmacokinetic
PLGA	Poly(D,L-lactide-co-glycolide)

PS	Particle size
Q_{24}	Cumulative amount of drug permeated per unit area over 24 h
RSD	Relative standard deviation
SAA	Surface active agent
SC	Stratum corneum
SD	Standard deviation
SDC	Sodium deoxycholate
SEM	Standard error of the mean
SLN	Solid lipid nanoparticles
SPC	Soybean phosphatidylcholine
T80	Tween 80
TDDS	Transdermal drug delivery system
TEWL	Transepidermal water loss
T_{max}	Time to reach maximum drug concentration
TPGS	D-α-Tocopherol polyethylene glycol 1000 succinate
TRO	Tropisetron hydrochloride
TS	Topically applied drug solution
UV/Vis	Ultra-violet/Visible
VS	Vesicle size
ZP	Zeta potential