Enhancement of bioavailability of a poorly soluble drug

A thesis submitted for partial fulfillment of the requirements for the Master Degree of Pharmaceutical Sciences (Pharmaceutics)

By

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Marwa Elsayed Mohammed

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LIST OF ABBREVIATIONS

Abbreviation	**Designation**
ACZ	Acetazolamide.
AE	Association efficiency.
ANOVA	One-way analysis of variance.
APIs	Active pharmaceutical ingredients.
AS	Antisolvent.
AS-PT	Antisolvent precipitation.
AUC	Area under the curve.
BAB	Blood aqueous barrier.
BCS	Biopharmaceutical classification system.
BRB	Blood retinal barrier.
C	Carrier
C∞	Bulk solubility.
CA	Carbonic anhydrase.
CAG	Closed angle glaucoma.
CAIs	Carbonic anhydrase inhibitors.
CD44	Cluster of differentiation 44.
CMC	Critical micelle concentration.
Conc	Concentration.
cP	Centipoise.
CS	Chitosan.
Cs	Saturation solubility.
Da	Dalton.
DL	Drug loading.
DLS	Dynamic light scattering.
DMSO	Dimethyl sulfoxide.
DSC	Differential scanning calorimetry.

f_2	Similarity factor.
FD	Freeze drying.
FDA	Food& drug administration.
GRAS	Generally regarded as safe.
h	Hours.
HLB	Hydrophilic- lipophilic balance.
^{1}H NMR	Proton nuclear magnetic resonance.
HPH	High pressure homogenization.
ICH	International Conference on Harmonization.
I_{irr}	Overall ocular irritation index.
IOP	Intraocular pressure.
IR	Infrared.
KGy	Kilogray.
KHz	Kilo Hertz.
Kv	Kilovolt.
Leu	Leucine.
LMW	Low molecular weight.
LNS	Liquid nanosuspension.
M	Molar.
mA	Milli Amber.
Man	Mannitol.
mg	Milligram.
MHz	Mega Hertz.
min	Minutes.
mL	Milliliter.
mV	Millivolt.
MW	Molecular weight.
MWCO	Molecular weight cut off.

NaCl	Sodium chloride.
NaOH	Sodium hydroxide.
ND	Not determined.
nm	Nanometer.
NPs	Nanoparticles.
NS	Nanosuspension.
OAG	Open angle glaucoma.
OFAT	One factor at time.
P-407	Poloxamer 407.
PBS	Phosphate buffer saline.
PC	Phosphatidyl choline.
PDI	Polydispersity index.
PEG-400	Polyethylene glycol 400.
PG	Poly-γ-glutamic acid.
PM	Physical mixture.
ppt	Precipitation.
PS	Particle size.
PSD	Particle size distribution.
PVA	Polyvinyl alcohol.
RGCs	Retinal ganglion cells.
R^2	Coefficient of determination.
RT	Room temperature.
R_{index}	Redispersibility index.
S	Solvent.
s	Second.
s.d	Standard deviation.
SAA	Surfactant.
SD	Spray drying.

SDN	Spray dried nanosuspension.
SDP	Spray dried powder.
SE	Standard error.
SEM	Scanning electron microscope.
SL	Soya bean Lecithin.
SNS	Solid nanosuspension.
STF	Simulated tear fluid.
TDL	Theoretical drug loading.
TEM	Transmission electron microscope.
Tg	Glass transition temperature.
TGA	Thermogravimetric analysis.
T_{inlet}	Inlet temperature.
T_{outlet}	Outlet temperature.
UV	Ultraviolet.
WBM	Wet ball milling.
XRPD	X- ray powder diffraction.
Y	Sodium hyaluronate.
ζ	Zeta potential.
λ_{max}	Wavelength of maximum absorption.
µm	Micrometer.

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