



جامعة عين شمس  
كلية الصيدلة  
قسم الصيدلانيات والصيدلة الصناعية

# **Nanoparticles for Targeting Colon Cancer**

*A Thesis Submitted as Partial Fulfillment of the Requirements for the  
Master Degree of Pharmaceutical Sciences  
(Pharmaceutics)*

**By**

**Lydia Ramzy Adly Ramzy**

*Bachelor of Pharmaceutical Science, June 2011, Ain Shams University  
Demonstrator, department of Pharmaceutics and Industrial pharmacy  
Faculty of Pharmacy, Ain Shams University*

*Under the supervision of*

**Professor Dr. Gehanne Abd El-Samee Awad**

Professor of Pharmaceutics and Industrial Pharmacy  
Faculty of pharmacy, Ain Shams University

**Associate Professor Dr. Maha Nasr Sayed**

Associate Professor of Pharmaceutics and Industrial Pharmacy  
Faculty of pharmacy, Ain Shams University

**Dr. Abdelkader Ali Mostafa**

Lecturer of Pharmaceutics and Industrial Pharmacy  
Faculty of Pharmacy, Ain Shams University

**Department of Pharmaceutics and Industrial Pharmacy**

**Faculty of Pharmacy**

**Ain Shams University, Cairo, Egypt**

**(2018)**



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## " جسيمات نانوية لتهديف سرطان القولون "

رسالة مقدمة من

**ليديا رمزي عدلى رمزي**

بكالوريوس العلوم الصيدلانية، 2011 جامعة عين شمس  
معيدة بقسم الصيدلانيات والصيدلة الصناعية، كلية الصيدلة جامعة عين شمس  
للاستيفاء الجزئى لمتطلبات الحصول على درجة الماجستير فى العلوم الصيدلانية  
(صيدلانيات)

تحت اشراف كل من

**أ.د. جيهان عبد السميع عوض**

أستاذ بقسم الصيدلانيات و الصيدلة الصناعية- كلية الصيدلة- جامعة عين شمس

**أ.م.د. مها نصر سيد**

أستاذ مساعد بقسم الصيدلانيات و الصيدلة الصناعية- كلية الصيدلة- جامعة عين شمس

**د. عبد القادر على مصطفى**

مدرس بقسم الصيدلانيات و الصيدلة الصناعية- كلية الصيدلة- جامعة عين شمس

قسم الصيدلانيات والصيدلة الصناعية

كلية الصيدلة- جامعة عين شمس

(2018)

# **Acknowledgement**

## Acknowledgement

First and foremost thanks to **God** by the grace of whom this work was achieved.

I would like to express my sincerest appreciation to **Prof. Dr. Gehanne Abd El-Samie Awad**, Professor of Pharmaceutics and Industrial Pharmacy, for her valuable guidance, precious advice, continuous support and encouragement throughout the development of this thesis.

I would like to express my gratitude and sincere appreciation to **Dr. Abdelkader Ali Mostafa**, Lecturer of Pharmaceutics and Industrial Pharmacy, for his continuous guidance and support, valuable advice and the great effort he devoted for the completion of this work. I can never pay him back for the experience he has helped me to gain.

I would like to express my gratitude and sincere appreciation to **Dr. Maha Nasr Sayed**, Associate Professor of Pharmaceutics and Industrial Pharmacy, to whom I owe so much for her great help, instructive supervision, continuous guidance and encouragement and great effort throughout the development of this thesis.

I would like to thank all the staff members in the **department of Pharmaceutics and Industrial Pharmacy**, Faculty of Pharmacy, Ain Shams University, for helping me throughout the whole thesis.

I could never express my deepest thanks and sincere appreciation to my dear mother and brother for their great effort, continuous encouragement and moral support throughout the development of this thesis.

## *Dedication*

*I dedicate this thesis to the soul of my great lovely father. I also dedicate this thesis to my dear mother and brother that without their great effort, help and moral support this work would not have been accomplished. Thank you.*

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**List of Abbreviations**

Adamantane	Ad
Alanine transaminase	ALT
Alkaline phosphatase	ALP
Anisamide	AA
Aspartate transaminase	AST
B-cell lymphoma 2	Bcl-2
tert-butyloxycarbonyl	Boc
Chemical shift	$\delta$
Chitosan	CS
Colon-specific drug delivery	CSDD
Colony forming unit	cfu
Cyclodextrin	CD
Cyclooxygenase-2	COX-2
Dichloromethane	DCM
<i>N,N'</i> -Dicyclohexylcarbodiimide	DCC
4-(Dimethylamino)pyridine	DMAP
Dimethyl sulfoxide	DMSO
1,2-dioleoyl-3-trimethylammonium-propane	DOTAP
<i>N,N</i> -distearyl- <i>N</i> -methyl- <i>N</i> -2-( <i>N'</i> -arginyl) aminoethyl ammonium chloride	DSAA
DT-diaphorase	DTD
Entrapment efficiency %	EE%
Enhanced Permeability and Retention	EPR
Epidermal growth factor receptor	EGFR
Fluorescein isothiocyanate	FITC
Gastrointestinal tract	GIT
Hyaluronic acid	HA

### *List of abbreviations*

Hydroxy propyl cellulose	HPC
Hypoxia-inducible factor 1 alpha	HIF-1 $\alpha$
Inflammatory bowel disease	IBD
Interleukin-1beta	IL-1 $\beta$
Kilodalton	kDa
Kilovolt	kV
Lipid/calcium/phosphate	LCP
Lipid core nanocapsules	LCNCs
Lipid nanocapsules	LNCs
Liposomal calcium carbonate	LCC
Median lethal dose	LD <sub>50</sub>
3-[4,5-dimethylthiazol-2-yl]-2,5-diphenyltetrazolium bromide	MTT
Monocyte chemoattractant protein-1	MCP-1
Myelocytomatosis	c-Myc
Murine double minute 2 gene product	MDM2
Nanostructured lipid carriers	NLCs
Nuclear factor-kappa B	NF- $\kappa$ B
Nuclear magnetic resonance	NMR
Number of scans	NS
Polo-like kinase 1	PLK1
Poly( $\epsilon$ -caprolactone)	PCL
Polydispersity index	PDI
Polyethylene glycol	PEG
Poly(lactide-co-glycolide)	PLGA
Poly-L-lysine	PLL
Reactive oxygen species	ROS
Retention factor	R <sub>f</sub>
Rheumatoid arthritis	RA

*List of abbreviations*

Roswell Park Memorial Institute medium	RPMI 1640
Serum glutamic oxaloacetic transaminase	SGOT
Serum glutamic pyruvic transaminase	SGPT
Sigma	$\sigma$
Simulated intestinal fluid	SIF
small interfering RNA	siRNA
Solid lipid nanoparticles	SLNs
Standard deviation	S.D.
Transmission electron microscopy	TEM
Thin layer chromatography	TLC
Thymoquinone	TQ
Trifluoroacetic acid	TFA
Tumor necrosis factor-alpha	TNF- $\alpha$
Ultraviolet	U.V.
Vascular endothelial growth factor	VEGF
Vascular cell adhesion molecule-1	VCAM-1
Wavelength of maximum absorption	$\lambda_{\max}$

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