



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



HANAA ALY



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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جامعة عين شمس

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HANAA ALY



A study on different approaches that can be used to combat resistance caused by MDR *Acinetobacter baumannii* pathogens

A Thesis

Submitted in Partial Fulfillment of the Requirements for the

Master degree

In Pharmaceutical Sciences
(Microbiology and Immunology)

By

Nancy Gamil Banoub Dimitry

Bachelor of Pharmaceutical Sciences, 2017
Faculty of Pharmacy, Heliopolis University

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Under Supervision of

Dr. Khaled Mohammad Anwar Aboshanab, PhD

Professor of Microbiology and Immunology, Vice Dean for graduate
students and scientific research, Faculty of pharmacy, Ain shams
University

Dr. Sarra Ebrahim Saleh, PhD

Lecturer of Microbiology and Immunology,
Faculty of Pharmacy, Ain Shams University

Dr. Hala SalahEldin Helal, PhD

Lecturer of Microbiology and Immunology, Faculty of Pharmacy,
Heliopolis University

2021

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List of Abbreviations

μg	Micro-gram
μl	Micro-liter
A.	<i>Acinetobacter</i>
A/S	Ampicillin-sulbactam
ABC	ATP-binding cassette
Ags	Aminoglycosides
AK	Amikacin
AMEs	Aminoglycoside-modifying enzymes
CDC	Centers for Disease Control and Prevention
CIP	Ciprofloxacin
CLSI	Clinical and Laboratory Standards Institute
CN	Gentamicin
CNPs	Chitosan nanoparticles
CPM	Ceftriaxone
CSF	Cerebrospinal fluid
CT	Colistin
DLS	Dynamic Light Scattering
DNA	Deoxyribo Nucleic Acid
DO	Doxycycline
EDTA	Ethylenediamine tetra-acetic acid

List of Abbreviations

ERIC-PCR	Enterobacterial Repetitive Intergenic Consensus-Polymerase Chain Reaction
FDA	Food and Drug Administration
FEP	Cefepime
FICI	Fractional Inhibitory Concentration Index
h	Hours
HR-TEM	High resolution -Transmission electron microscope imaging
I	Intermediate
ICUs	Intensive care units
IDSA	Infectious Diseases Society of America
IPM	Imipenem
MDF	Minimum inhibitor concentration decrease factor
MDR	Multidrug resistance
MEM	Meropenem
MFS	Major Facilitator Superfamily
MHA	Mueller Hinton agar
MIC	Minimum Inhibitory Concentration
ml	Milli-liter
MTCE	Multidrug and toxic compound extrusion
NPs	Nanoparticles
°C	Celsius
PACE	Proteobacterial antimicrobial compound efflux

List of Abbreviations

PBPs	Penicillin binding proteins
PCR	Polymerase Chain Reaction
PD	Pharmacodynamics
PRL	Piperacillin
R	Resistant
RNA	Ribonucleic Acid
RND	Resistance/nodulation/division
ROS	Reactive oxygen peroxide
S	Susceptible
<i>S. aureus</i>	<i>Staphylococcus aureus</i>
SMR	Small multidrug resistance
SXT	Trimethoprim-sulfamethoxazole
TBE	Tris borate EDTA
TGC	Tigecycline
Tris	Trishydroxymethylaminomethane
TZP	Piperacillin-tazobactam
UPGM	Unweighted pair group method
UTI	Urinary tract infection
VAP	Ventilator-associated pneumonia
WHO	World Health Organizations
XDR	Extensively-drug resistance

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