



Ain Shams University
Faculty of Pharmacy
Microbiology & Immunology Dept.

Alternative Approaches for the Control of Methicillin Resistant *Staphylococcus aureus*

A Thesis

Submitted in Partial Fulfillment of the Requirments for the
Master's Degree

In
Pharmaceutical Sciences
(*Microbiology and Immunology*)

By

Mona Mohammad Hesham El Gayar

Bachelor of Pharmaceutical Sciences,
Faculty of Pharmacy, Ain Shams University, ٢٠٠٧

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كلية الصيدلة
قسم الميكروبيولوجيا والمناعة

"التوجهات البديلة للتحكم فى عدوى الستافيلوكوكس أوريس المقاومة للميثيسيلين"

رسالة
مقدمة للحصول على درجة الماجستير فى العلوم الصيدلانية
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LIST OF ABBREVIATION

<i>Abbreviation</i>	<i>Definition</i>
ACUC	Animal care and use committee
ATCC	American type culture collection
CA-MRSA	Community-associated methicillin-resistant <i>S. aureus</i>
CAP	Community-associated pneumonia
CDC	The centers for disease control and prevention
CFU	Colony forming unit
Clf	Clumping factor
CLSI	The clinical and laboratory standards institute
CoNS	Coagulase-negative <i>S. aureus</i>
CV	Crystal violet
EbpS	Elastin binding protein
EDTA	Ethylene diamine tetra acetic acid
FAO	Food and agricultural organization
FBS	Fetal bovine serum
FGE	Fresh garlic extract
FnBPA	Fibronectin binding protein a
GP	Group
H&E	Hematoxyline and eosin
HA-MRSA	Healthcare-associated methicillin-resistant <i>S. aureus</i>
Hla	Alpha hemolysin
Hrs	Hours
LTA	Lipoteichoic acid
MEM	Minimum essential medium
MH	Mueller-hinton agar
Min	Minutes
MR	Code for MRSA
MRS	deMan, Rogosa and Sharpe
MRSA	Methicillin-resistant <i>S. aureus</i>
MSA	Mannitol salt agar
MSCRAMMs	Microbial surface components recognizing adhesive matrix molecules
MSSA	Methicillin-sensitve <i>S. aureus</i>
NAC	N-acetylcysteine

NICU	Neonatal intensive care unit
NSAIDs	Non steroidal anti-inflammatory drugs
OD	Optical density
ORSA	Oxacillin- resistant <i>S. aureus</i>
PBP	Penicillin binding proteins
PBP2a	Altered penicillin-binding protein 2a
PBS	Phosphate buffered saline
PepG	Peptidoglycan
PIA	Polysaccharide intercellular adhesion
PSMa	Phenol-soluble modulins
PVL	Panton-valentine leukocidin
QS	Quorum sensing
RBCs	Red blood cells
RJ	Royal jelly
SAGs	Superantigens
SCVs	Small-colony variants
SLS	Sodium lauryl sulphate
SPSS	The software program statistical package for social science
SSSS	<i>Staphylococcal</i> scalded-skin syndrome
SSTIs	Skin soft tissue infections
TSB	Trypticase soy broth
TSST-1	Toxic shock syndrome toxin-1
VRSA	Vancomycin resistant <i>S. aureus</i>
WHO	The World Health Organization