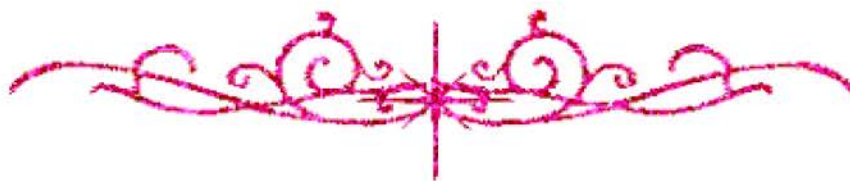


سامية محمد مصطفى



شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



سامية محمد مصطفى



شبكة المعلومات الجامعية



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



سامية محمد مصطفى



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



سامية محمد مصطفى



شبكة المعلومات الجامعية



بعض الوثائق الأصلية تالفة



سامية محمد مصطفى



شبكة المعلومات الجامعية



بالرسالة صفحات لم ترد بالأصل



**ROLE OF MYCOBACTERIAL GROWTH
INDICATOR TUBE (MGIT) IN THE DIAGNOSIS
AND ASSESSMENT OF DRUG SENSITIVITY OF
PULMONARY TUBERCULOSIS**

Thesis

*Submitted in Partial Fulfillment for the Requirement of the
M.D. Degree in Chest Diseases and Tuberculosis*



By

MOHAMED HUSSIN KAMEL EL-SAID
M.B.B.Ch., M.Sc.

Supervised By

DR. MEDHAT FAHMI NEGM

Prof. and Head of Department of Chest Diseases
Benha Faculty of Medicine
Zagazig University

DR. AHMED G. EL-GAZZAR

Prof. of Chest Diseases
Benha Faculty of Medicine
Zagazig University

DR. AYMAN ABD EL-RAHMAN

Prof. of Chest Diseases
Benha Faculty of Medicine
Zagazig University

DR. SOHIR ABD EL-RAHMAN

Assistant Prof. of Clinical Pathology
Benha Faculty of Medicine
Zagazig University

DR. SOMAIA EL-DESOKY

Assistant Prof. of Microbiology
Benha Faculty of Medicine
Zagazig University

**BENHA FACULTY OF MEDICINE
ZAGAZIG UNIVERSITY**

2002

B

١٤٤٤

ACKNOWLEDGEMENT

Before all and above all, thanks to **ALLAH**, to whom I relate every success in my life.

I would like to express my deepest gratitude and appreciation to **PROF. DR. MEDHAT FAHMI NEGM**, Prof. and Head of Chest Department, Benha Faculty of Medicine, Zagazig University, for his guidance and continuous encouragement to complete this work.

I wish also to express my sincere thanks and gratitude to **PROF. DR. AHMED G. EL-GAZZAR**, Prof. of Chest Diseases, Benha Faculty of Medicine, Zagazig University, for his great advice, unlimited effort and help to complete this study.

I'm really grateful to **PROF. DR. AYMAN ABD EL-RAHMAN**, Prof. of Chest Diseases, Benha Faculty of Medicine, Zagazig University, for his great assistance, without his kind assistance and scientific directions, this work would not have been in this form.

I'm greatly indebted to **DR. SOHIR ABD EL-RAHMAN**, Assistant Prof. of Clinical Pathology, Benha Faculty of Medicine, Zagazig University for her continuous encouragement and sincere supervision that have been of great help in performing this work.

My great thanks and appreciation to **DR. SOMAIA EL-DESOUKY**, Assistant Prof. of Bacteriology, Benha Faculty of Medicine, Zagazig University, for her unlimited help, great care, kind directions and encouragement in every part of this work.

LIST OF ABBREVIATIONS

$\alpha 2$	Alpha
AFB	Acid fast bacilli
AIDS	Acquired immune deficiency syndrome
APC	Antigen presenting cell
AST	Antimicrobial susceptibility test
B.C.	Before century
BCG	Bacillus calmette and Guerin
CDC	Center of disease control
CMI	Cell mediated immunity
CO ₂	Carbon dioxide
¹⁴ CO ₂	Radioactive carbon dioxide
CSF	Cerebrospinal fluid
DNA	Deoxyribonucleic acid
DOTS	Directly observed treatment with short course chemotherapy
DTH	Delayed hypersensitivity
ELAM	Endothelial leucocyte adhesion molecule
ELISA	Enzyme linked immunosorbent assay
GC-MS	Gas chromatography-mass spectrum
γ	Gamma
GI	Growth index
h.	Hour
HIV	Human immunodeficiency virus
HLA	Human leucocyte antigen
HPLC	High performance liquid chromatography
ICAM-1	Intracellular adhesion molecule
IF	Interferon gamma
IFN	Interferon
IgG	Immunoglobuline G
IgM	Immunoglobuline M
IL	Interlukin
INH	Isonicotinic acid hydrazide
IUATLD	International union against tuberculosis and lung diseases
KH ₂ PO ₄	Monopotassium phosphate
LCR	Ligase chain reaction
L-J	Lowenstein-Jensen
M	Mycobacterium
MAC	Mycobacterium avium complex
MDR-TB	Multidrug resistant tuberculosis
MGIT	Mycobacterial growth indicator tube
MHC	Major histocompatibility complex
MOTT	Mycobacteria other than tuberculosis
MTB	Mycobacterium tuberculosis

NALC	N-acetyl-L-cysteine
Na ₂ HPO ₄	Anhydrous disodium phosphate
NaOH	Sodium hydroxide
NAP	P-Nitro- α -acetylamino- β -hydroxypropioiphenone
NK	Natural killer
NTM	Non tuberculous mycobacteria
NTP	National tuberculosis programe
OADC	Olieic acid-albumin-dextrose-catalase
OT	Old tuberculin
PANTA	Polymyxin B, Amphotericin B, Nalidixic acid, Trimethoprun, Azlocillin
PBS	Phosphate buffer solution
PCR	Polymerase chain reaction
POES	Polyoxyethylene stearate
PPD	Purified protein derivatives
PRF	PANTA reconstituting fluid
RMP	Rifampicine
RNA	Ribo nucleic acid
RFLP	Restriction fragment length polymorphism
SIRE	Streptomycin-Isoniazide-Rifampicin-Ethmabutol
TB	Tubercle bacilli
T.U	Tuberculine unit
U.S.A	United State of America
UTRS	Unit of training research and surveillane of national tuberculosis program
UV	Ultraviolet
VCAM	Vascular adhesion molecule
WBC	White blood cell
WHO	World health organization
Z-N	Ziehl-Neelsen

LIST OF FIGURES

Fig. No.	Title	Page No.
1	Showing time in days of isolation of sputum smear +ve newly diagnosed tuberculous patients (group I) by both Lewenstein Jensen (L-J) culture and mycobacterial growth indicator tube media (MGIT).	115
2	Comparison between mean time in day of isolation of M. tuberculosis of sputum smear +ve newly diagnosed tuberculous patients (group I) by ordinary conventional method L-J culture and MGIT media.	116
3	Showing time in days of isolation of sputum smear -ve newly diagnosed tuberculous patients (group II) by both Lewenstein Jensen (L-J) culture and mycobacterial growth indicator tube media (MGIT).	118
4	Comparison between mean time/day of isolation of M. tuberculosis of sputum smear -ve newly diagnosed tuberculous patients (group II) by ordinary conventional method L-J culture and MGIT media.	119
5	Showing time in days of isolation of treatment failure tuberculous patients group (III) by both Lewenstein Jensen (L-J) culture and mycobacterial growth indicator tube media (MGIT).	121
6	Comparison between mean time in day of isolation of M. tuberculosis of treatment failure tuberculous patients (group III) by ordinary conventional method L-J culture and MGIT media.	122
7	Percent of drug sensitivity and initial drug resistance among newly diagnosed sputum smear +ve tuberculous patients (group I) by MGIT, SIRE, AST.	124

Fig. No.	Title	Page No.
8	Percent of sensitivity and initial drug resistance among newly diagnosed sputum smear -ve tuberculous patients (group II) by MGIT, SIRE, AST.	126
9	Percent of drug sensitivity and secondary drug resistance among treatment failure tuberculous patients (group III) by MGIT-SIRE-AST.	128