

**THE PROTECTIVE EFFECT OF BCG  
VACCINATION  
AS CORRELATED WITH VACCINE-INDUCED  
TUBERCULIN REACTIONS**

**Thesis  
Submitted for the Partial Fulfilment of the  
Master Degree in Paediatrics**

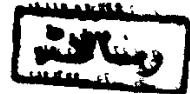
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1998





بسم الله الرحمن الرحيم

« قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ  
أَنْتَ الْعَلِيمُ الْحَكِيمُ »

صدق الله العظيم

« سورة البقرة »

الآية (٣٢)



*To My Parents  
and  
My Son Omar  
to whom I am indebted  
for their efforts, support,  
care and everlasting  
encouragement.*



## Acknowledgment

It is a great honour to express the most sincere gratitude to **Professor Dr. Karima A. Abdel Khalek**, Professor of Paediatrics for her continuous support, supervision and valuable advice throughout all steps of this work.

I would like to express my sincere gratitude and respect to **Dr. Mahmoud Tarek Abdel Monim**, Assistant Professor of Paediatrics for his continuous encouragement, valuable help, advice and for his close supervision which contributed a great deal to success of this work.

Also I am extremely grateful to **Dr. Randa Abdel Wahab Reda**, Assistant Professor of Clinical Pathology for her guidance and support.



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### **List of abbreviations**

|          |                                          |
|----------|------------------------------------------|
| ADA :    | Adenosine Deaminase                      |
| AFB :    | Acid - Fast Bacilli                      |
| ARI :    | Annual Risk of Tuberculous Infection     |
| BACTEC : | Becton Dickinson, Townson, MD            |
| BCG :    | Bacille - Calmette - Guérin              |
| CD :     | Clusters of differentiation              |
| CT :     | Computed tomography                      |
| ELISA :  | Enzyme - linked Immunosorbent Assay      |
| HIV :    | Human Immunodeficiency Virus             |
| IFG :    | Interferon Gamma                         |
| INH :    | Isoniazide                               |
| MPT :    | Multiple puncture tests                  |
| MRI :    | Magnetic Resonance Imaging               |
| M.tub.:  | Mycobacterium tuberculosis               |
| NTM :    | Non-tuberculous mycobacteria             |
| OT :     | Old tuberculin                           |
| PAM :    | Pulmonary alveolar macrophages           |
| PPD :    | Purified protein derivative              |
| PZA :    | Pyrazinamide                             |
| RFLP :   | Restriction Fragment Length Polymorphism |
| RIF :    | Rifampicin                               |
| SACT :   | Solidphase Antibody Competition Test     |
| T.B.:    | Tuberculosis                             |
| TU :     | Tuberculin units                         |

WHO : World Health Organization

% : Percentage

$\leq$  : less than or equal to

$\geq$  : more than or equal to

+ve : positive

-ve : negative

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