بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

Biochemical Studies For Evaluation and Molecular Characterization of a New Polymerase Chain Reaction-Enzyme-Linked Immunosorbent Assay (PCR-ELISA) for Detection of *Wuchereria bancrofti* DNA

Submitted to Cairo University, Faculty of Science

In partial fulfillment of the Requirements

For the master degree

Of Science

(Biological Chemistry)

By

Marwa Adly Abdalla

Bachelor of Chemistry

Department of Chemistry

Faculty of Science

Cairo University

2001

Approval Sheet For Submission

Title of M.Sc. Thesis

Biochemical Studies For Evaluation and Molecular Characterization of a New Polymerase Chain Reaction-Enzyme-Linked Immunosorbent Assay (PCR-ELISA) for Detection of *Wuchereria bancrofti* DNA

Name of Candidate

Marwa Adly Abdalla

Submitted to the

Faculty of Science, Cairo University

This Thesis has been approved for submission by the supervisors

1. Prof. Dr. Sadek El-Said Abdou
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3. Dr. Amr Saad Mohamed
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Chairman of Chemistry Department
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ABSTRACT

Name: Marwa Adly Abdalla

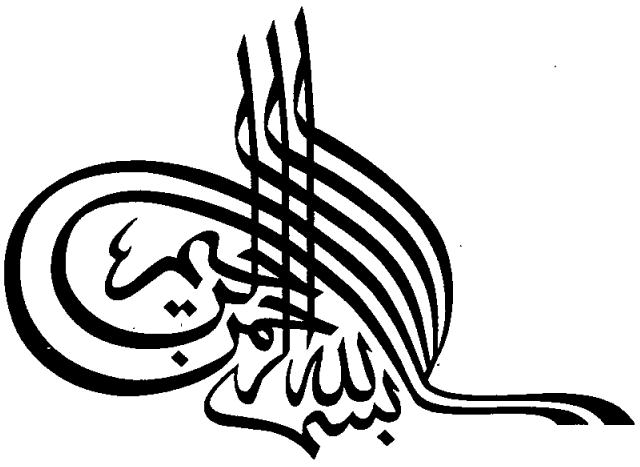
Title of M.Sc. Thesis: Biochemical Studies For Evaluation and Molecular Characterization of a New Polymerase Chain Reaction-Enzyme-Linked Immunosorbent Assay (PCR-ELISA) for Detection of *Wuchereria bancrofti* DNA

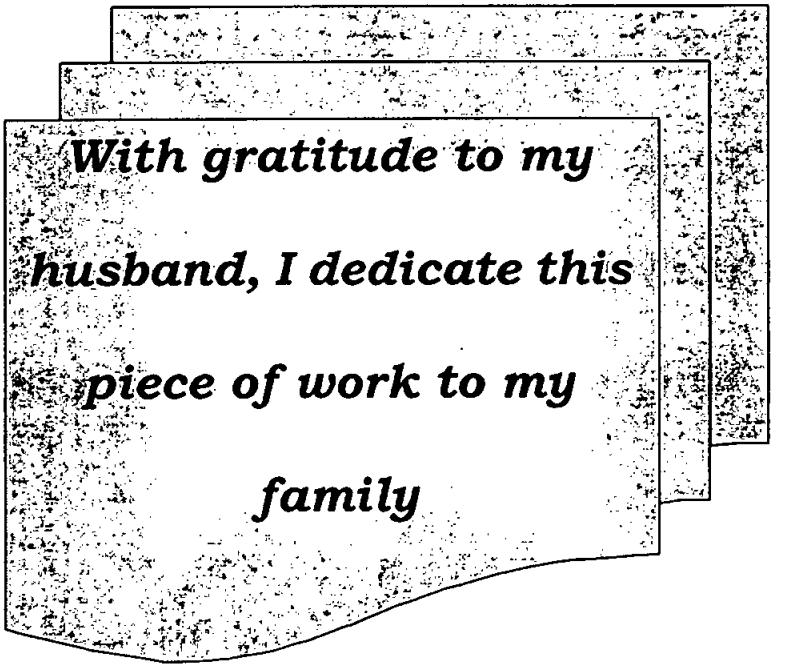
Degree: Master of Science, Thesis, Faculty of Science, Cairo University (2001)

This work has been carried out to evaluate the performance, sensitivity and practical utility of the newly developed polymerase chain reaction-enzyme-linked immunosorbent assay (PCR-ELISA) in detecting *Wuchereria bancrofti* DNA in the mosquito vector in a low endemic village as a model for after treatment situation. The described assay that combines the conventional PCR with the use of an internal control and a very sensitive ELISA detection of PCR products can be successfully employed to screen large numbers of mosquitoes and calculate the infection rate of mosquitoes in low endemic areas. It was successfully employed to estimate the relative amount of *W. bancrofti* DNA present in wild caught mosquitoes providing semi-quantitative data. The method provides accurate description of the level of inhibition in mosquito pools and thus help preventing false negative results.

Key words

Lymphatic filariasis, *Wuchereria bancrofti*, *Culex pipiens*, quantitative PCR, PCR-ELISA, internal control, false negatives.


بسم الله الرحمن الرحيم


With gratitude to my husband, I dedicate this piece of work to my family

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