



Cairo University

Faculty of Veterinary Medicine

Department of Microbiology

Preparation and Evaluation of a Combined Bivalent Vaccine Against Avian Pasteurella and Mycoplasma Infections in Chickens

A thesis presented by

Fatma Fathy Ibrahim Hassan

B.V.Sc., Fac. Vet. Med., Cairo University (2004)

M.V.Sc., Veterinary Medical Sciences

Fac. Vet. Med., Cairo University (2012)

For the Degree of Ph. D. in Veterinary Medical Sciences

(Bacteriology, Immunology, Mycology)

Under the supervision of

Prof. Dr. Mahmoud Essam Hatem Ahmed (late)

Professor of Microbiology

Faculty of Veterinary Medicine

Cairo University

Prof. Dr. Jakeen Kamal El Jakee

Professor of Microbiology and Vice dean for
graduate studies and research affairs
Faculty of Veterinary Medicine
Cairo University

Prof. Dr. Wafaa Abd El Ghany Abd El Ghany

Professor of Poultry Diseases
Faculty of Veterinary Medicine
Cairo University

Dr. Eman Mohammed El Rawy

Chief Researcher and Head of Aerobic
Bacterial Vaccines Department
Veterinary Serum and Vaccine Research
Institute-Abbasia - Cairo

Dr. Mona Mohammed Shaker

Chief Researcher
Mycoplasma Department
Animal Health Research Institute-Dokki-Giza

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Cairo University
Faculty of Veterinary Medicine
Department of Microbiology
(Bacteriology, Immunology, Mycology)

Approval sheet

The examining committee approved **Mrs Fatma Fathy Ibrahim Hassan** for the Degree of PhD in Veterinary Medical sciences "Microbiology" (Bacteriology, Immunology, Mycology) from Cairo University

Examining and judgment Committee:

Prof. Dr. Ashraf Awaad Abd El-Tawab
Professor and Head of Microbiology Department
Faculty of Veterinary Medicine, Banha University

Ashraf Awaad

Ass. Prof. Ahmed Samir Mohammed
Assistant Professor of Microbiology
Faculty of Veterinary Medicine, Cairo University

Ahmed Samir

Prof. Dr. Jakeen Kamal Abd El-Haleem El Jakee (Supervisor)
Professor of Microbiology and Vice dean for graduate studies and research affairs
Faculty of Veterinary Medicine, Cairo University

Jakeen Kamal

Prof. Dr. Wafaa Abd El Ghany Abd El Ghany (Supervisor)
Professor of Poultry Diseases
Faculty of Veterinary Medicine, Cairo University

Wafaa

Dr. Eman Mohammed El Rawy (Supervisor)
Chief Researcher and Head of Aerobic Bacterial Vaccines Department
Veterinary Serum and Vaccine Research Institute, Abbasia, Cairo

Eman El Rawy

Dr. Mona Mohammed Shaker (Supervisor)
Chief Researcher in Mycoplasma Department
Animal Health Research Institute, Dokki, Giza

Dr. Mona Shaker

16/ 8/2018

Supervision sheet

This thesis is under supervision of:

- **Prof. Dr. Mahmoud Essam Hatem Ahmed (late)**

Professor of Microbiology, Faculty of Veterinary Medicine, Cairo University

- **Prof. Dr. Jakeen Kamal Abd El-Haleem El Jakee**

Professor of Microbiology and Vice dean for graduate studies and research affairs, Faculty of Veterinary Medicine, Cairo University

- **Prof. Dr. Wafaa Abd El Ghany Abd El Ghany**

Professor of Poultry Diseases, Faculty of Veterinary Medicine, Cairo University

- **Dr. Eman Mohammed El Rawy**

Chief Researcher and Head of Aerobic Bacterial Vaccines Department, Veterinary Serum and Vaccine Research Institute, Abbasia, Cairo

- **Dr. Mona Mohammed Shaker**

Chief Researcher in Mycoplasma Department, Animal Health Research Institute, Dokki, Giza

Cairo University
Faculty of Veterinary Medicine
Department of Microbiology

Name: Fatma Fathy Ibrahim Hassan

Nationality: Egyptian.

Date and place of birth: 1/10/1982, Giza.

Degree: Ph.D. in Veterinary Medical Sciences (Bacteriology–Immunology–Mycology), 2018.

Thesis Title: Preparation and evaluation of a combined bivalent vaccine against avian Pasteurella and Mycoplasma infections in chickens.

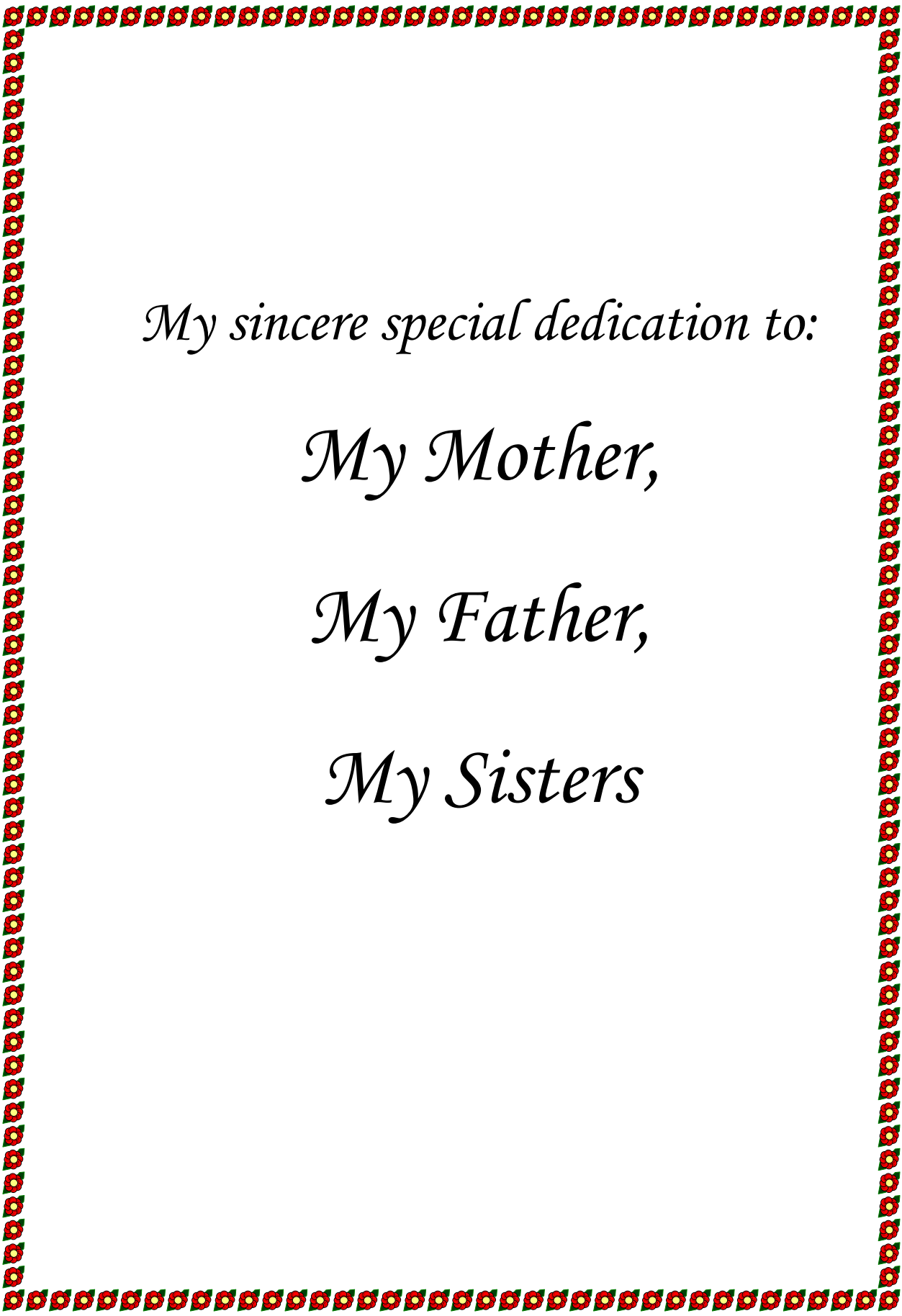
Under Supervision of:

- **Prof. Dr. Mahmoud Essam Hatem Ahmed (late).** Professor of Microbiology, Faculty of Veterinary Medicine, Cairo University.
- **Prof. Dr. Jakeen Kamal Abd El-Haleem El Jakee.** Professor of Microbiology and Vice dean for graduate studies and research affairs, Faculty of Veterinary Medicine, Cairo University.
- **Prof. Dr. Wafaa Abd El Ghany Abd El Ghany.** Professor of Poultry Diseases, Faculty of Veterinary Medicine, Cairo University.
- **Dr. Eman Mohammed El Rawy.** Chief Researcher and Head of Aerobic Bacterial Vaccines Department, Veterinary Serum and Vaccine Research Institute, Abbasia, Cairo.
- **Dr. Mona Mohammed Shaker.** Chief Researcher in Mycoplasma Department, Animal Health Research Institute, Dokki, Giza.

Abstract

The present work was planned to study the immune response of chickens vaccinated with locally prepared combined inactivated vaccine of *M. gallisepticum* and *P. multocida* adjuvanted with Montanide ISA70. 150, 4 weeks old specific pathogen free chickens were divided into five groups, the 1st group was vaccinated with *P. multocida* vaccine, the 2nd group was vaccinated with *M. gallisepticum* vaccine, the 3rd group was vaccinated with combined *M. gallisepticum* and *P. multocida* vaccine, the 4th group was vaccinated with imported *M. gallisepticum* vaccine and the 5th group was kept unvaccinated as a control group. The prepared vaccines were evaluated by determination of the cellular immunity by heterophils/lymphocytes ratio and measurement of nitric oxide in the supernatant of macrophage, and evaluation of the humoral immunity by indirect haemagglutination, haemagglutination inhibition and ELISA techniques. The potency of the vaccines were evaluated by the challenge and passive mouse protection tests against the challenge with the virulent strain of *M. gallisepticum* (Eis3-10 strain) and *P. multocida* (serotypes A and D). The results showed that combined inactivated vaccine of *M. gallisepticum* and *P. multocida* adjuvanted with Montanide ISA70 induced high and long duration of antibody response and significant protection against the challenge with virulent strain of *M. gallisepticum* (Eis3-10 strain).

Keywords: *M. gallisepticum*, *P. multocida*, inactivated vaccine, chickens, Montanide ISA70.



My sincere special dedication to:

My Mother,

My Father,

My Sisters

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