



**CURRICULUM VITAE**

**1- PERSONAL DETAILS**

**Name:** Ashraf Mohamed Ahmed

**Nationality:** Egyptian

**Date of birth:** 9 / 10 / 1967

**Marital status:** Married (3 children)

**Address:** Zoology Department, Faculty of Sciences,  
El-Minia University, El-Minia, Egypt.

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## **2- ACADEMIC QUALIFICATIONS**

- Bachelor of science:** Entomology Department, University of Zagazeeg, Benha Branch, Egypt (May, 1990).  
(Entomology)
- MSc in Entomology;** Zoology Department, University of El-Minia, Egypt  
(Insect Immunity): (March, 1993- July, 1995).  
**Title:**  
Some immune response mechanisms of the cotton leaf worm *Spodoptera littoralis* and silk worm *Bombyx mori* to some biological and non-biological agents.
- PhD in Entomology;** Biological Sciences Department, Keele University, UK  
(Vector Biology & Immunity): (January, 1998 - January, 2002).  
**Title:**  
Molecular approaches to the effect of malaria infection on anopheline mosquito reproductive fitness.

## **3- TEACHING EXPERIENCES**

- Demonstration:** a- In Zoology Department, El-Minia University, Egypt (March, 1992- December, 1995).  
b- In Biological Sciences Department, Keele University, UK (January, 1999 - December, 2001).
- Assistant Lecturer:** In Zoology Department, El-Minia University, El-Minia, Egypt (from 1995 to 1998)
- Lecturer:** Zoology Department, El-Minia University, El-Minia, Egypt (from 2002 until now)

## **4- RECENT TEACHING INTERESTS**

1. General Entomology (Morphology, Anatomy and Taxonomy for 3<sup>rd</sup> year, undergraduate)
  2. Animal behaviour (4<sup>th</sup> year undergraduate)
  3. Animal Physiology (3<sup>rd</sup> year, undergraduate, Faculty of Education)
  4. Animal Ecology (4<sup>th</sup> year, undergraduate)
  5. General Zoology, Taxonomy and Parasitology (1<sup>st</sup> year, postgraduate)
  6. Insect Ecology (1<sup>st</sup> year, postgraduate, Faculty of Education)
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## **5- RESEARCH INTERESTS**

1. **Insect Immunity and Physiology:** Studying the different immune responses of insects aiming to utilizing the innate immune system in enhancing the beneficial insect and controlling the harmful one.
2. **Plasmodium-Mosquito interaction:** Studying the possibility of utilizing the innate immune system of mosquito vector to control malaria parasite.
3. **Insect Biological Control:** Investigating new natural microorganisms suitable for use as biological control agents against the Egyptian cotton-leaf worm.

## **6- CURRENT ONGOING HONOR RESEARCH SUPERVISIONS**

1. One currently ongoing MSc, studying the possibility of utilizing some naturally existed entomopathogenic bacteria to control the Egyptian cotton-leaf worm in El-Minia Governorate (Zoology Department, El-Minia University).
2. One currently ongoing MSc, studying the possibility of utilizing naturally existed entomopathogenic fungi to control the Egyptian cotton-leaf worm in El-Minia Governorate (in collaboration with Botany Department, El-Minia University).
3. One currently ongoing PhD, studying the utilization of the innate immune system of mosquito to kill the mosquito forms of filarial parasite to prevent filarial disease transmission in Egypt (in collaboration with Zoology Department, Tanta University and Ain Shams University).

## **7- PARTICIPATION AT MEETINGS**

### **A)- IN EGYPT:**

#### **1)- The 1<sup>st</sup> Congress of Sciences and Development:**

Organised by the Faculty of Science, El-Azhar University, EGYPT, 20<sup>th</sup> –23<sup>rd</sup> of March, 1995.

**Title:**

Effect of *Heterorhabditis bacteriophora* nematode on the cellular immune responses of the silk worm *Bombyx mori* and the Egyptian cotton leaf worm *Spodoptera littoralis*.

#### **2)- The 3<sup>rd</sup> Congress of Toxicology In Developing Countries:**

Organised by the National Research Centre, Cairo, EGYPT, 19<sup>th</sup> –23<sup>rd</sup> of November, 1995.

**Title:**

Effect of *Bacillus thuringiensis* bacteria and spore- $\delta$ -endotoxins on the immune system of *Bombyx mori*.

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**3)- The 3<sup>rd</sup> International Conference on Biological Sciences:**

Organised by University of Tanta, Tanta, EGYPT, 28<sup>th</sup> – 29<sup>th</sup> of April, 2004.

**Title:**

Activation of the immune system of *Anopheles gambiae* against malaria parasite: a comparison between bacterial infection and a botanical extract.

**4)- The 1<sup>st</sup> International Conference on Natural Toxins:**

Organised by Faculty of Pharmacy, October 6 University, Cairo, EGYPT, from 18<sup>th</sup> – 19<sup>th</sup> of December 2004.

**Title:**

Towards utilizing the immune system of mosquito vector to block malaria transmission as a suggested alternative for chemical control.

**5)- The 15<sup>th</sup> International Conference of the Egyptian German Society of Zoology:**

Organized by Faculty of Girls, Ain Shams University Cairo, EGYPT, from 26<sup>th</sup> of February – 2<sup>nd</sup> of March 2005.

**Title:**

Melanization of Sephadex beads by the malaria vector, *Anopheles gambiae*: effect of blood meal, and mechanisms of reproductive costs.

**6)- The 3<sup>rd</sup> International Conference of Applied Entomology:**

Organized by Department of Entomology, Faculty of Sciences, University of Cairo, EGYPT, from 23<sup>rd</sup> – 24<sup>th</sup> of March 2005.

**Title:**

The humoral anti-bacterial response of *Anopheles gambiae* and the immunity-reproduction trade-off: between the hope and limitation of the malaria immuno-control strategy.

**B)- IN BRITAIN & INTERNATIONAL:**

**1)- The 10<sup>th</sup> Malaria Meeting:**

Organised by the British Society for Parasitology (BSP), September, 21–23, 1998, at the University of Edinburgh, Edinburgh, UK.

**Title:**

Effect of *Plasmodium*-infection on the reproductive fitness of *Anopheles gambiae*.

**2)- The 11<sup>th</sup> Malaria Meeting:**

Organised by the British Society for Parasitology (BSP), 20<sup>th</sup> – 22<sup>nd</sup> of December, 1999, at Imperial Collage, London, UK.

**Title:**

Effect of malaria infection on vitellogenin gene transcription in *Anopheles gambiae* during two gonotrophic cycles.

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**3)- The XXXI International Congress of Entomology:**

20<sup>th</sup> – 26<sup>th</sup> of August, 2000, in Iguassu Falls, Brazil.

**Title:**

Effect of malaria infection on mosquito vitellogenesis.

**4)- Research In Progress (Short Presentations & Posters)**

Organised by The Royal Society of Tropical Medicine and Hygiene, 7<sup>th</sup> of December, 2000, at Manson House, London, UK.

**Title:**

Effect of malaria infection on vitellogenin mRNA abundance in *Anopheles gambiae*.

**5)- Joint Malaria and Spring Meeting**

Organised by British Society for Parasitology (BSP), 17<sup>th</sup> – 20<sup>th</sup> of April, 2001, at Keele University, Stock-On-Trent, UK.

**Title:**

The effect of immune stimulation on the reproductive fitness of the malaria vector, *Anopheles gambiae*.

**6)- Workshop on Ecological Immunity of Arthropods**

Organised by the European Society Foundation, 6<sup>th</sup> – 9<sup>th</sup> of December, 2001, at Losehill Hall, Sheffield, UK).

**Title:**

Malaria vector, *Anopheles gambiae*: the costs of mounting an immune response.

**7)- Joint Malaria and Spring Meeting:**

Organized by the British Society for Parasitology (BSP) at the University of Nottingham, Nottingham, UK, from 3<sup>rd</sup> - 6<sup>th</sup> of April, 2005.

**Title:**

Immune stimulation and malaria infection impose reproductive costs in *Anopheles gambiae* via follicular apoptosis.

**8)- XI International Congress of Parasitology (ICOPA XI):**

Organized by the British Society for Parasitology (BSP) at Scottish Exhibition & Conference Centre (SECC), Glasgow, Scotland from 6-11 August 2006.

**Title:**

A dual effect for the black seed oil on *Anopheles gambiae*: enhances immunity and reduced reproductive cost.

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### **C)- IN SAUDI ARABIA**

#### **The 3<sup>rd</sup> Saudi Conference:**

Organized by the College of Science, King Saud University KSA from 10-13<sup>th</sup> of March 2007.

#### **Title:**

*Anopheles gambiae* and a non-costly immuno-control of malaria: lessons from the past, hope for the future.

### **8- TRAINING COURSES ATTENDED**

#### **A)- IN EGYPT:**

##### **1)- Electron Microscopy**

**Location:** Faculty of Sciences, Assiut University

**Duration / Date:** March, 25-30, 1995.

##### **2)- Training course of Faculty and Leadership Development Project for staff members (FLDP) (26<sup>th</sup> – 31<sup>st</sup> of January 2005:**

Organized by the University of El-Minia, El-Minia, EGYPT

1. Improving presentation skill (I1)
2. Improving communication skills (I2)

#### **B)- IN BRITAIN:**

##### **1)- Methods of Statistical Analysis of Particular Relevance to Biology**

**Location:** School of Life Sciences, Keele University, UK.

**Duration / Date:** July - September 1998, 12 Hours Total (6 x 2 hrs).

##### **2)- First Aid Course**

**Location:** School of Life Sciences, Keele University, UK.

**Duration / Date:** June 1998, 8 hours Total (2 x 4 hrs).

##### **3)- Training course for using hazardous isotopes in laboratory work**

**Location:** School of Life Sciences, Keele University, UK.

**Duration / Date:** December, 1998.

##### **4)- Teaching and Learning In Higher Education Programme (Science Demonstrators)**

**Location:** School of Life Sciences, Keele University, UK.

**Duration / Date:** October, 1999, 4 hours (2 x 2 hrs).

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## **9- MEMBERSHIP IN SCIENTIFIC SOCIETIES**

1. A member of the British Society for Parasitology (no. 3868).
2. A member of the Egyptian German Society for Zoology.
3. A member of the International Malaria Discussion Group.
4. An Honorary Research Fellow Member at Keele University, UK for 3 years, from 2004-2007, (for more details, see this web site: [www.keele.ac.uk/depts/aep/collab/aa.htm](http://www.keele.ac.uk/depts/aep/collab/aa.htm)).
5. A member of the committee of **Environmental Affairs** of the Faculty of Sciences, University of El-Minia (from 2004 – 2005).
6. A member of the committee of **Improving & Qualifying** the undergraduate studying subjects at the Faculty of Sciences, El-Minia University, Egypt (during 2005).
7. A member of the committee of establishing a **Multimedia Centre** at El-Minia University for serving the recent e-teaching attitude of the Egyptian Ministry of Education (did not complete).

## **10- PROJECTS & PERSONAL ACTIVITIES**

### **A)- RESEARCH PROJECTS:**

1. Application for a grant from the Wellcome Trust, UK. Accepted by the Minister of Higher Education and Scientific Research on 4/3/2004. But has not been achieved because the procedures of getting this acceptance have taken longer than expected and ran out of deadline of the grant.
2. Invitation for a short visit (3 months) to Prof. Hilary's research group, Biological Sciences Department, Keele University, UK. This visit was funded by the Royal Society from 17<sup>th</sup> of June to 16<sup>th</sup> of September, 2004. Some research works were successfully achieved during this visit.
3. A member of the committee of managing & directing the Animal House (rearing experimental animals) of El-Minia University.
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### **B)- ACTIVITIES:**

5. General lecture in intelligence of animal and insect behaviour, held in Zoology Department on March, 2004. This lecture was a part of students' society activity in the Faculty of Sciences, El-Minia University, Egypt.
  6. General lecture titled "The Scientific Miracle Of Qura'an In Entomology" held in Zoology Department Faculty of Sciences King Saud University on November, 2006.
  7. A scientific lecture titled "A dual effect for the black seed oil on *Anopheles gambiae*: enhances immunity and reduces the concomitant reproductive cost" held in Biological Sciences Department, Keele University, UK on 3<sup>rd</sup> of August, 2006.
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8. A reviewer of the Saudi Journal of Biological Sciences (University of King Saud) for Entomology articles.

### **C)- Reviewing papers**

Have reviewed some scientific papers for the Saudi Journal of Biological Sciences (University of King Saud) for Entomology articles and other fields titled as following:

- I. The fresh water growing snails, *Physa acuta*, as a suitable bioindicator for testing cadmium toxicity.
- II. A two year study of ticks infesting goats and sheep in Abha in Saudi Arabia.
- III. New records of some filth flies (Diptera: Milichiidae) from southwest Saudi Arabia.

## **11- LIST OF PUBLICATIONS**

- 1)- Abu El-magd, A. A., Hamed, M. S., El-Kifl, T. A. and **Ahmed, A. M.** (1994). *In vitro* studies on cellular and humoral reactions of *Spodoptera littoralis* larvae to *Bacillus theuringiensis* bacteria and spore- $\delta$ -endotoxins. *Bulletin of Faculty of Science, Assute University*. **23(2-E)**: 201-214.
  - 2)- **A. M. Ahmed**, R. D. Maingon, Taylor, P. J. and H. Hurd (1999). The effect of infection with *Plasmodium yoelii nigeriensis* on the reproductive fitness of the mosquito *Anopheles gambiae*. *Invertebrate Reproduction and Development*. **36**: 217-222.
  - 3)- **Ashraf M. Ahmed**, Rhayza Maingon, Patricia Romans and Hilary Hurd (2001). Effects of malaria infection on vitellogenesis in *Anopheles gambiae* during two gonotrophic cycles. *Insect Molecular Biology*. **10(4)**: 347-356.
  - 4)- Hopwood, J. A., **Ahmed, A. M.**, Polwart, A., Williams, G. T. and Hurd, H. (2001). Malaria-induced apoptosis in mosquito ovaries: a mechanism to control vector egg production. *The Journal of Experimental Biology*. **204**: 2773-2780.
  - 5)- **A. M. Ahmed**, S. Baggott, R. Maingon and H. Hurd (2002). The costs of mounting an immune response are reflected in the reproductive fitness of the mosquito *Anopheles gambiae*. *OIKOS* **97**: 371-377.
  - 6)- **Ashraf M. Ahmed** (2004). Activation of the immune system of *Anopheles gambiae* against malaria parasite: a comparison between bacterial infection and a botanical extract. *The 3<sup>rd</sup> International Conference on Biological Science. University of Tanta, Tanta, EGYPT, 28 - 29 April. Proc. I.C.B.S.*, **3(1)**: 122 - 141
  - 7)- **Ashraf M. Ahmed** (2005). Melanization of Sephadex beads by the malaria vector, *Anopheles gambiae*: effect of blood meal, and mechanisms of reproductive costs. *The Egyptian German Society of Zoology*. **47(E)**: 69-85.
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- 8)- **Ashraf M. Ahmed** (2005). The humoral anti-bacterial response of *Anopheles gambiae* and the immunity-reproduction trade-off conflict: between the hope and limitation of the malaria immuno-control strategy. *Proceedings of The 3<sup>rd</sup> International Conference of Applied Entomology*, Cairo University, 23<sup>rd</sup> – 24<sup>th</sup> of March (2005), 351-374.
- 9)- **Ashraf M. Ahmed** and Hilary Hurd (2006). Immune stimulation and malaria infection impose reproductive costs in *Anopheles gambiae* via follicular apoptosis. *Microbes and Infection*, **8**: 308–315.
- 10)- **Ashraf M. Ahmed** (2006). A Dual Effect for the Black Seed Oil on the Malaria Vector *Anopheles gambiae*: Enhances Immunity and Reduces the Concomitant Reproductive Cost. *Journal of Entomology*, 4(1): 1-19.
- 11)- **Ahmed, A. M.** and El-Katatny, M. H. (2007). Entomopathogenic fungi as biopesticides against the Egyptian cotton leaf worm, *Spodoptera littoralis*: between biocontrol-promise and immune-limitation. *Journal of Egyptian Society of Toxicology*. **In Press**.

*With my complements, Ashraf M. Ahmed*

**June, 2007**

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