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Curriculum Vitae

Dr. Gamal ElsayedAbouelghar

Prof. of Pesticides Toxicology

■ Personal Data

Name: Gamal Elsayed Abouelghar

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Current Position: Professor, Department of Pesticides, Faculty of Agriculture

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■ Education

Degree	Date/Year	Place
Ph. D.	Jan 1986	Menoufia University, Egypt
M. Sc.	April 1981	Menoufia University, Egypt
Diploma	Feb 1978	Menoufia University, Egypt
B. Sc.	June 1976	Menoufia University (Formerly, Tanta University) , Egypt

■ Postdoctoral/ Sabbatical Leave

1. Visiting Scientist, Veterinary and Animal Sciences Dept., University of Massachusetts, Amherst, MA, USA	Jan 2012 – September 2012
1. Visiting Scientist, Veterinary and Animal Sciences Dept., University of Massachusetts, Amherst, MA, USA	June 2008 – September 2008
2. Visiting Scientist, Veterinary and Animal Sciences Dept., University of Massachusetts, Amherst, MA, USA	June 2007 – September 2007
3. Postdoctoral Fellow: Center for Health & the Environment (CHE) University of California, Davis, USA	August 2002 – September 2003
4. Visiting scientist, Insect Toxicology Lab, Department of Entomology, Kansas State University, Manhattan, KS, USA	June 2000 – August 2000
5. Visitor Professor, Institute of Phytopathology & Plant Protection, Faculty of Agric., University of Sarajevo, Bosnia and Herzegovina.	Sept. 1998 - October 1998
6. Visiting scientist, Entomology & Nematology Department, University of Florida, Gainesville, Florida, USA	September 1999 – December 1999
7. Postdoctoral Fellow, Entomology & Nematology Department, University of Florida, Gainesville, Florida, USA	September 1996 – March 1997
8. Postdoctoral Fellow, Department of Entomology, University of Missouri-Columbia, Missouri, USA	January 1992 - June 1992

■ Positions And Employment

01 August 2012 –30 Sept 2014	Head of Department of Pesticides, Faculty of Agriculture
27 Dec 2010 - 30 June 2012	Vice-Dean of Post-Graduates and Research Affairs
30 August 2010- 26 Dec 2010	Head of Department of Pesticides, Faculty of Agriculture
23 March 1997	Professor of Pesticides& Insect Toxicology, Department of Pesticides, Faculty of Agriculture
17 Feb 1991 -12 Dec 1992	Associate Professor, Department of Plant Protection
16 Feb 1986- 16 March 1991	Assistant Professor, Department of Plant Protection
14 June 1981-15 Feb 1986	Assistant Lecturer, Department of Plant Protection
17 Nov 1976 -13 June 1981	Assistant Instructor, Department of Plant Protection

■ Visiting Professor

23-27 August 2015	Dubai Municipality, United Arab Emirates
08 – 28 June 2014	Ministry of Environment, Qatar
09 – 13 March 2014	Al-Ain Municipality, United Arab Emirates
27 - 31 Dec 2010	Dubai Municipality, United Arab Emirates
19 – 23 Feb 2006	Ministry of Municipal Affairs and Agriculture, Qatar
13 Dec 1997- 22 March 1997	Institute of Phytopathology & Plant Protection, Faculty of Agric., University of Sarajevo, Bosnia and Herzegovina.

■ HONORS

- Distinguished Award offered by Menoufia University, December 2011.
- Distinguished Scholar Award, December 2001, offered by The Arab Fund for Economic and Social Development (Fellowship Programs).
- The Academic Excellence Award- 2001/2002 Academic Year, Menoufia University, Faculty of Agriculture, EGYPT.
- USA–AID Fund for research post-doctoral fellowship at Department of Entomology, University of Missouri-Columbia, Missouri, USA (January 1992 to August 1992).

■ BOOKS

JorgHeukelbach, Gamal E. Abou-Elghar, et al. (Eds.): **Management and Control of Head Lice Infestation: Molecular mechanisms of knockdown permethrin resistance**, 1st edition- Bremen: UNI-MED Verlag AG, London, Boston, 2010, 144 pp.

■ Work Experience& Academic Activities

- Teaching responsibilities: include teaching :
  a) Undergraduate Classes: Pesticides: classification, chemistry, and uses -Principles of Toxicology–Principles of Pest Control– Herbicides -Fundamentals of Applied Entomology – Pesticide Formulations- Biological Control.
  b) Postgraduate Classes: Environmental Toxicology - Integrated Pest Management (IPM) - Insecticide Toxicology - Pesticide Analysis - Pesticide Resistance in Arthropods- Environmental Toxicology- Biopesticides – Botanical Pesticides.
- Supervising responsibilities on theses and dissertations.
- Department/community service activities include: chairing departmental and Faculty Curriculum and Executive Committees; serving on Pest Control Programs; and Interdisciplinary Studies Advisory Committees and guest lectures at the IPM.

- Academic Advisor for the undergraduates, Plant protection Program, faculty of Agriculture.
- Academic Advisor of the ICDL program for the undergraduates.
- Member of the Egyptian Universities Promotion Committees.

Activities in Developing the Quality Assurance & Accreditation System

- Director of Quality Assurance and Accreditation Project (QAAP): "Establishment of Internal Quality Assurance System" – Project no. B/MEN/3/03, Faculty of Agriculture, Menoufia University, Egypt.
- Co-Director of " The Continuous Improvement and Qualification for Accreditation Project – CIQAP " in Faculty of Agriculture, Menoufia University – Second Phase.
- Director of Electronic Services Unit, Information and Communication Technology Project (ICTP) at Faculty of Agriculture, Menoufia University.

Areas of Research Interests and Accomplishments

- Sub-chronic toxicity of neonicotinoids, thiamethoxam and acetamiprid, in albino mice: biochemical, oxidative stress and histological alterations.
- Fipronil induced oxidative stress and hepato-renal failure in albino mice.
- Detection the role of sulphonylurea receptor as major target of chitin synthesis inhibitors in German cockroach and *Drosophila*.
- Demonstrated the Serial invasive signal amplification reaction (SISAR) protocol used for quantitative detection of the genotyping permethrin-resistant (*kdr*-like) human head lice populations, *Pediculus capitis*, depending on presence of two point mutations in the voltage-sensitive sodium channel α-subunit gene.
- Identified biochemical characterization of detoxifying enzyme activities underlying insecticide resistance in the fall armyworm, *Spodoptera frugiperda,* with emphasis on microsomal oxidases and glutathione S-transferase.
- Toxicological and biochemical characterization of insecticide resistance in cotton leafworm, *Spodoptera littoralis*, Pink bollworm, *Pectinophora gossypiella*and whitefly, *Bemisia tabaci*.

Peer Reviewer

- Pesticide Biochemistry and Physiology
- Food and Chemical Toxicology
- Phytochemistry
- Insect Biochemistry and Molecular Biology

Projects And Grants

- **June 2007-Sept 2007/ June 2008-Sep 2008/ Jan 2012- Sept 2012: Grant from University of Massachusetts, Amherst, to join a research project entitled "**Developing a technique for detecting the resistance mechanism of several strains of the Human Head Lice to permethrin depending on presence one single point mutation on Voltage-sensitive sodium channel Alpha-subunit Gene", Dept. of Veterinary &Animal Sciences, University of Massachusetts, Amherst, U.S.A.
- **Sept 2002- Sept 2003: The Arab Fund Fellowships Program "Distinguished Scholar Award" for Research to carry out the project:** "Sulfonyl urea receptor in insect cuticular epidermis is likely the insecticidal target of benzoylurea type insecticides", at Center for Health & the Environment, University of California, Davis, CA 95616, U.S.A.

International Conferences

- The XVIII. International Plant Protection Congress, Berlin, 24-27 August **2015(Germany).**
- The 10th European Congress of Entomology (3-8 August, **2014**) York, **England**.
- The 236th ACS National Meeting(August 17-21, **2008**), Philadelphia, PA, **U.S.A.**
- 11th IUPAC Int. Congress of Pesticide Chemistry(August 6-11, **2006**), Kobe, Japan.
- The 5th Asia-Pacific Congress of Entomology(October 18-21, **2005**), Jeju, South Korea.
- The 1994 Annual Meeting of Entomological Society of America(December 13-17, **1994**), Dallas-Texas, U.S.A.
- The 8th Int. Congress of Pesticide Chemistry(4-9 July **1994**), Washington D.C., U.S.A.
- The Annual Meeting of the Entomological Society of America(December 12-16, **1993**), Indianapolis, U.S.A.
- The International Conference "Regulation of Insect Reproduction V"(23-28 September, **1991**), Zinkovy, Czechoslovakia.
- The Sixth-International Symposium of Scale Insect Studies **(**August 6–12,**1990**), Krakow, Poland.

■ Selected Papers Published in International Refereed Journals

Gamal E. Abouelghar, Zeinab A. El-Bermawy and Hagar M.S. Salman. 2020. Oxidative Stress, Hematological and Histopathological Alterations Induced by Sub-chronic Exposure to Fipronil (COACH®) in Albino Mice and Ameliorative Effect of Selenium plus Vitamin E. (Accepted for publication).

Gamal E. Abouelghar, Rania I. Yassien, Zeinab A. El-Bermawy and Yasssmin A. Shalaby. 2020. Subacute-oral toxicity of thiamethoxam (ACTARA®) insecticide in albino mice: biochemical, oxidative damage and histopathological evaluations. (Under publication).

Nashwa S. Elias; Gamal E. Abouelghar; Hassan M. Sobhy; Hala F. Elmeniawy and Ebthal G. Elsaiedy. 2019. Sublethal effects of the herbicide thiobencarb on fecundity, histopathological and biochemical changes in the African catfish (*Clarias gariepinus*). Iranian Fisheries Science Research Institute. (In press). DOI: 10.22092/IJFS.2018.119669.

Amal A. Eisa, G.E. Abo-Elghar, I.M. Ammar, Hala G. Metwally and Samah S. Arafa. 2018. Teratogenic effects induced by chitosan oligosaccharide in Wistar female rat *Rattus norvegicus*. Environmental Science and Pollution Research, **vol. 25,** (10):9371-9379. **(Germany)**

Kyong Sup Yoon , Domenic J. Previte, Hilliary E. Hodgdon, Bryan C. Poole, Deok Ho Kwon, Gamal E. Abo El-Ghar, Si Hyeock Lee and J. Marshall Clark. 2014. Knockdown Resistance Allele Frequencies in North American Head Louse (Anoplura: Pediculidae) Populations. Journal of Medical Entomology, 51(2):450-457.

Abou-Elghar G.E., SakrHanem H., Ammar H., Yousef A., Nassar M. 2013. Sublethal Effects Of Spinosad (Tracer®) On The Cotton Leafworm (Lepidoptera: Noctuidae). Journal of Plant Protection Research , Vol. 53 (3) : 275-284.

Kamal H. and Abou-Elghar G.E. 2013. Histological and chemical changes induced by spinosad in albino rat. Journal of Plant Protection Research, Vol. 53 (3): 263-270.

Marcoux D., Palma G.K., Kaul N., Hodgdon H., Geest A.V., Previte D.J., Abo-Elghar G.E., Yoon K.S., and Clark J.M. 2010. Pyrethroidpediculicide resistance of head lice in Canada evaluated by serial invasive signal amplification reaction. Journal of Cutaneous Medicine and Surgery May-Jun, Vol. 14 (3): 115-118

Hodgdon, H., Yoon K., Previte D., Kim H., Abo-Elghar G.E.S., Lee S.H., and Clark J. 2010. Determination of knockdown resistance allele frequencies in global human head louse populations using the serial invasive signal amplification reaction. Pest Management Science, 66: 1031-1040.

AboElghar, G. E., Elbermawy Z.A., Yousef A. G. andAbd-Elhady H. K. 2005. Monitoring and Characterization of Insecticide Resistance in the Cotton Leafworm (Lepidoptera: Noctuidae).Journal of Asia-Pacific Entomology, 8 (4) : 397- 410.

AboElghar, G.E.S., Fujiyoshi P. & Matsumura F. 2004. Significance of the sulfonylurea receptor (SUR) as the target of diflubenzuron in chitin synthesis inhibition in *Drosophila melanogaster* and *Blattella germanica.* Insect Biochemistry and Molecular Biology , 34: 743-752.

AboElghar, G E. S., A. E. El-Sheikh, F. El-Sayed, H. El-Maghraby, & H. El-Zan. 2004. Persistance and residual activity of three IGRs, hexaflumuron, teflubenzuron, and pyriproxyfen against *Callosobruchus maculatus*(Coleoptera: Bruchidae) in stored cowpea. Pest Management Science (England) 60 (1): 95-102.

Yu, S.J., S.N. Nguyen & G.E. AboElghar 2003. Biochemical characteristics of insecticide resistance in the fall armyworm, *Spodoptera frugiperda* (J.E. Smith). Pesticide Biochemistry and Physiology 77 (1) 1-11.

Yu, S. J. and G. E. AboElghar. 2000. Allelochemicals as inhibitors of glutathione S-transferases in the fall armyworm. Pesticide Biochemistry and Physioligy, 68 (3) : 173 -183.

AboElghar, G. E. S., M. S. Khalil & T. M. Eid. 1996. Some biochemical effects of plant extracts in the black cutworm, *Agrotis ipsilon* (Hufnagel). Journal of Applied Entomology, 120: 477-482

Salama, S. E., A. I. FahmiandG. E. S. AboElghar. 1995. Chromosomal aberrations and spermhead abnormalities induced by abamectin (Avermectin B1) and its degradates in male Swiss albino mice. Cytologia 60: 411-417.

AboElghar, G. E. S., H. S. A. Radwan, Z. A. El-Bermawy& L. T. M. Zidan. 1995. Sublethal effects of Avermectin B1, ß-exotoxin of *Bacillus thuringiensis* and diflubenzuron against cotton leafworm (Lepidoptera: Noctuidae). Journal of Apllied Entomology, 119 (4): 309-313.

AboElghar, G. E., H. S. Radwan, Z. A. El-Bermawy& L. T. Zidan. 1995. Inhibitory effect of thuringiensin and abamectin on digestive enzymes and non-specific esterases of *Spodoptera littoralis* larvae. Journal of Applied Entomology, 19:355-359

AboElghar, G. E. S. 1994. Effects of herbicides on consumption, growth and food utilization by cotton leafworm, *Spodoptera littoralis* larvae. Anz. Schädlingskde., Pflanzenschutz, Umweltschutz 67: 143-146.

Abd-Elghafar, S. F., G. E. AboElgharandC. O. Knowles. 1994. Fenvalerate penetration, metabolism, and excretion in pyrethroid-susceptible and resistant *Heliothis virescens* (Lepidoptera: Noctuidae). Journal of Economic Entomology, 87: 872-878.

Abo Elghar, G. E. S., A. M. El-Sayed, A. E. El-Sheikh & H. Radwan. 1994. Field tests with insecticides and insect growth regulators to control insect pests of cowpea and its effects on certain beneficial insects. Arch.Phytopath. Pflanz.28 :531-543.

Abo Elghar, G. E. S. and A. M. El-Sayed. 1992. Long-term effects of insecticides on *Diaeretiella rapae* (M'Intosh), a parasite of the cabbage aphid. Pesticide Science 36: 109-114.

El-Sayed, A. M. and G. E. AboElghar. 1992. The influence of normal and low-rate application of insecticides on populations of the cotton whitefly and melon aphid and associated parasites and predators on cucumber. Anz. Schädlingskde., Pflanzenschutz, Umweltschutz 65: 54-57.

Abo Elghar, G. E. 1992. Effects of insect growth regulators with juvenile hormone activity against *Callosobruchus maculatus* (F.) (Coleoptera: Bruchidae). Anz. Schädlingskde., Pflanzenschutz, Umweltschutz 65: 137-140.

Abo Elghar, G. E. S. and S. E. Esmail. 1991. Effects of synthetic pyrethroid insecticides on aphid population (*Aphis craccivora* Koch) and yield of faba bean (*Viciafaba* L.).Arch. Phytopathol. PflSchutz, Berlin 27: -288.

Abo El-Ghar, G. E. S. & A. M. El-Sayed. 1989. Impact of two synthetic pyrethroids and methomyl on management of the cabbage aphid, *Brevicoryne brassicae* (L.) and its associated parasitoid, *Diaeretiella rapae* (M'Intosh). Pestic. Sci. 25: 35-42. **(England)**

El-Sayed, A. M. & G. E. S. Abo El-Ghar. 1989. Selective toxicity of organophosphorus insecticides to the cabbage aphid, *Brevicoryne brassicae* (Homoptera: Aphididae) and its parasitoid,*Diaeretiella rapae* (Hymenoptera: Aphididae).Z. Pfl-Krankh. PflSchutz 96: 281-288. **(Germany)**

Radwan, H. S. A., O. M. Assal, G. E. S. Abo El-Ghar, M. R. Riskallah & M. T. Ahmed. 1986. Some aspects of the action of diflubenzuron and trifluron on food consumption, growth rate and food utilization by *Spodoptera littoralis* larvae. J. Insect Physiol. 32: 103-107. **(England)**

■ Selected Papers Published in International Conference Proceedings

G. Abou-Elghar, H. Amar, A. Ghatas and M. Nasar. 2015. Lethal and Sublethal Effects of Spinosad and Abamectin on *Spodopteralittoralis*(Lepidoptera: Noctuidae).In: The XVIII. International Plant Protection Congress, Berlin, Germany, 24-27 August 2015**(Germany).**

G.E. Abou-Elgharand J.M. Clark. 2014. NYDA® NEX: A promising highly efficacious pediculicide and ovicide based on dimeticone against permethrin-resistant human head lice (Anoplura: Pediculidae). In: The Xth- European Congress of Entomology, **York**, England, August 3-8, 2014 (**England**).

Si Hyeock Lee, J. M. Clark, K. S. Yoon, Hilliary E Hodgdon, D. J. Previte, G. E. Abo-El-Ghar, D. H. Kwon, K. M. S. 2010. Molecular detection of *kdr* frequencies in global human head louse populations for Pyrethroid resistance monitoring. Fourth International Conference on Phthiraptera, Urgup, Cappadocia, Turkey , June 13-18, 2010. **(Turkey)**

Matsumura, Fumio and Abo-Elghar G. 2008. Sulfonyl urea receptor in insect cuticular epidermis is likely the insecticidal target of benzoylurea type

insecticides. *In:* The 236th ACS National Meeting, Philadelphia, PA, August 17-21, 2008**(U.S.A.)**

AboElghar, G.E.S., Fujiyoshi P. and Matsumura F. 2006. Significance of the sulfonylurea receptor (SUR) as the target of diflubenzuron in chitin synthesis inhibition in *Drosophilamelanogaster* and *Blattellagermanica.* 11th IUPAC International Congress of Pesticide Chemistry, Kobe, Japan, August 6-11, 2006 (SPW6-1). **(Japan)**

AboElghar, G.E., Elbermawy Z.A., Yousef A.G. &Abd-Elhady H.K. 2005. Monitoring and Characterization of Insecticide Resistance in the Cotton Leafworm (Lepidoptera: Noctuidae). *In*: the 5th Asia-Pacific Congress of Entomology, Jeju, South Korea, October 18-21, 2005. **(South Korea)**

Abd-Elghafar, S. F., G. E. S. Abo El-Ghar& C. O. Knowles. 1994. Fate of fenvalerate in pyrethroid susceptible and resistant tobacco budworm and bollworm larvae. *In* the 18th Int. Congress of Pesticide Chemistry, Washington D.C., 4-9 July 1994. **(U.S.A)**

Abo El-Ghar, G. E. S., M. S. Khalil & T. M. Eid. 1994. Effects of plant extracts on development and fecundity of *Agrotisipsilon* (Lepidoptera: Nocuidae). *In* the 1994 Annual Meeting of Entomological Society of America, December 13-17, 1994, Dallas-Texas, USA (Abstract #0879). **(U.S.A.)**

Abd-Elghafar, S. F., G. E. S. Abo El-Ghar& C. O. Knowles. 1993. Fenvalerate pharmacokinetics in pyrethroid susceptible and resistant tobacco budworm larvae. *In* 1993 Annual Meeting of the Entomological Society of America, Indianapolis, December 12-16 (Abstract #DSP0283).**(U.S.A.).**

REFERENCES

Dr. J. Marshall Clark
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