

Doaa E. Soliman, PhD

Professor of Medical Entomology | Ain Shams University, Cairo, Egypt

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Academic Appointments

- Professor of Medical Entomology, Ain Shams University, Cairo, Egypt (2023–Present)
- Assistant Professor, Ain Shams University (2010–2017)
- Teaching Assistant / Lecturer, Ain Shams University (1996–2009)

Education

- PhD, Entomology (2009)

Dissertation: Cellular and Humoral Immune Response in *Aedes caspius* Mosquito -Ain Shams University, Egypt & RTC

- MSc, Entomology (2003)

Thesis: Transmission Dynamics of Lymphatic Filariasis in Endemic Villages in Egypt-Ain Shams University

- BSc, Entomology (1996)-Ain Shams University

Research Interests

- Mosquito immunity and vector–pathogen interactions
- Molecular and cellular immunology of disease vectors

- Vector competence, ecology, and control of vector-borne diseases
- Climate change and vector distribution modeling

Awards & Scholarships

- Molecular immunology training with Prof. Bruce M. Christensen, University of Wisconsin–Madison (1998)
- Doctoral research fellowship in Medical Entomology Lab, Iowa State University (2008–2009)
- Publication among Top 10% Most Cited PLOS ONE Papers (2016)
- International publication awards from Ain Shams University board 2020, and 2022

Research Experience

- • Vector field collection, identification, and colony maintenance (*Culex pipiens*, *Aedes caspius*)
- • Molecular diagnostics: PCR, RT-PCR, cloning, immunoblotting, electrophoresis
- • Mosquito infection experiments with filarial parasites, dissections, hemolymph perfusion
- • DNA analysis, primer design, and bioinformatics tools
- • Collaboration with Ministry of Health (Egypt) on national lymphatic filariasis elimination program

Teaching Experience

- Graduate Courses: Molecular Aspects of Host–Pathogen Interactions, Research Methodology, Epidemiology of vector borne-diseases , and Scientific Writing and Publication
- Undergraduate Courses: Medical & Veterinary Entomology, Vector–Pathogen Interactions, Insect Immunity, Public Health Entomology, Molecular Entomology, Invertebrate Zoology, Basics of Epidemiology of Vector-borne Diseases

- Curriculum development, program design (Biotechnology credit hours program), academic coordination, and examination committee leadership
- Curriculum development of medical entomology program, faculty of Science-Ain Shams University

Professional Service

- Academic Advisor for undergraduates :2017-present
- Academic advisor for postgraduates: 2021-present
- Peer Reviewer: PLOS ONE, BMC Microbiology, Journal of Vector-Borne Diseases
- Member: Entomological Society of America, Egyptian Veterinary Epidemiology Society, Scientists Syndicate (Egypt)
- Member of International Publication Board, Ain Shams University
- Vice president of Examination Control Room for undergraduates, Faculty of Science-Ain Shams University. (2020-present)

PEER-REVIEWED PUBLICATIONS

- Farid Hoda A; Hammad Ragaa E; **Soliman Doaa E**; El Setouhy Maged A; Ramzy Reda M.R.; Weil Gary J. 2003. Relationships between *Wuchereria bancrofti* microfilaria counts in human blood and parasite uptake and maturation in *Culex pipiens*, with observations on the effects of diethylcarbamazine treatment on these parameters. *American Journal of Tropical Medicine and Hygiene* 2003;68(3):286-93.
- **Soliman, Doaa E.**, Farid, Hoda A., Hammad, Ragaa E., Gad, Adel M., Bartholomay, Lyric C. 2016. Innate Cellular Immune Responses in *Aedes caspius* Mosquitoes. *Journal of Medical Entomology*, 53(2):262-7.
- Abd El Badaie, Noha,M., **Soliman, Doaa, E.**, Lotfy, Nadia,M., and Shehata, Magdi, G. 2016. Genetic diversity of *Phlebotomus papatasi* populations inferred from ITS2 rDNA in two different geographical

- regions in Egypt. *International J. Current Research* (8)3: 27209-27214.
- Abdallah M. Samy, Arwa H. Elaagip, Mohamed A. Kenawy, ConstaÃncia F. J. Ayres,A. Townsend Peterson, **Doaa E. Soliman**. 2016. Climate change influences on the global potential distribution of the mosquito *Culex quinquefasciatus*, vector of west Nile virus and lymphatic filariasis. *PLOS ONE*. DOI:10.1371/journal.pone.0163863.
 - Shaalan, M.G., **Soliman, D.E.**, Abdou, M.A., Othman, A., Abd El Lattif, Y., Shehata, M.G. 2017. Molecular characterization of vitellogenesis in anautogenous *Culex pipiens pipiens* L. mosquitoes. *International Journal of Mosquito Research* 4(2): 05-11.
 - Nawal M. Shanbaky, Nadia Helmy, Hala M. Khater, **Doaa E. Soliman**, Ayat Yousefy. 2017. Effect of borreliac infection on haemolymph and ovarian protein concentrations during vitellogenesis in *Ornithodoros erraticus*, a vector of relapsing fever in Egypt. *Egyptian Academic Journal of Biological Sciences, C. Physiology & Molecular Biology*, 9(1): 15-25.
 - ELHARIRI, M., ELHELW, R., HAMZA, D., **SOLIMAN, D.** (2017). 'MOLECULAR DETECTION OF ANAPLASMA MARGINALE IN THE EGYPTIAN WATER BUFFALOES (BUBALUS BUBALIS) BASED ON MAJOR SURFACE PROTEIN 1A', *Journal of the Egyptian Society of Parasitology*, 47(2), pp. 247-252. doi: 10.21608/jesp.2017.77758
 - Eslam Adly, Mohamed Nasser, **Doaa Soliman**, Daniel R. Gustafsson, Magdi Shehata. 2019. New records of chewing lice (Phthiraptera: Amblycera, Ischnocera) from Egyptian pigeons and doves (Columbiformes), with description of one new species. *Acta Tropica*, 190, February: 22-27.
 - Sobhy Abdel-Shafy , Abdullah D. Alanazi , Hanan S. M. Gabr, Ahmad M. Allam , Hala A. A. Abou-Zeina , Ragab A. Masoud , **Doaa E. Soliman** and Mohammad Yahya Alshahrani. 2020. Efficacy and safety of ethanolic *Curcuma longa* extract as a treatment for sand tampan ticks in a rabbit model. *Veterinary World*, 13(4): 812-820.

- Eslam Adly , Mohamed Nasser, **Doaa E. Soliman**, Sara A. AlAshaal, Mohamed A. Kenawy, Daniel R. Gustafsson, Khalid M. Alghamdi, Magdi Shehata. Analysis of phoretic relation between chewing lice and hippoboscid flies of *Columba livia*. *Veterinary Parasitology: Regional Studies and Reports*, 22 (2020) 100496. <https://doi.org/10.1016/j.vprsr.2020.100496>.
- Eslam Adly, Magdi G. Shehata , Ebtehal El-Demerdash , Saleh Alfarraj , Sulaiman Ali Alharbi , **Doaa E. Soliman** . 2021. Impact of anti-sandfly saliva antibodies on biological aspects of *Phlebotomus papatasi* (Diptera: Psychodidae), vector of cutaneous leishmaniasis. *Saudi Journal of Biological Sciences.*, 28 (2021) 2695–2700
- Eslam M. Hosni, Mohamed Nasser , Areej A. Al-Khalaf , Kholoud A. Al-Shammery , Sara Al-Ashaal ,and **Doaa Soliman**. 2022. Invasion of the Land of Samurai: Potential Spread of Old-World Screwworm to Japan under Climate Change. *Diversity.*, 14, 99. <https://doi.org/10.3390/d14020099>
- **Doaa E. Soliman**, Hanan. S. Amer, Nadia M. Lotfy, Wael, S., Abdel-Mageed and Shaimaa A. A. Mo'men. 2022. Molecular Characterization and Evaluation of The Antimicrobial Activity of Phenoloxidase Purified from *Spodoptera littoralis* against Different Array of Pathogenic Bacteria. *Egypt. Acad. J. Biol. Sci, C. Physiology & Molecular Biology.*, 14(2): pp153-162.
- **Doaa Soliman**, Eslam Adly, Mohamed Nasser, Magdi Shehata & Mahmoud Kamal (2022) Seasonal population dynamics of the common chewing lice *Columbicola columbae* infesting the domestic pigeon *Columba livia*, *Oriental Insects*, DOI: 10.1080/00305316.2022.2136777
- Khater, H., E **Soliman, D.**, Slim, A., Debboun, M. and M Baz, M., 2023. Larvicidal Efficacy of Fifteen Plant Essential Oils against *Culex pipiens* L. Mosquitoes in Egypt. *Egyptian Journal of Veterinary Sciences*, 54(2), pp.183-192.
- Yousery, A., **Soliman, D.E.**, Samy, A.A. Ahmad M. Allam, Mona G. Shaalan & Amira E. Abdel Hamid. 2024. Molecular detection of some zoonotic tick-borne pathogens in ticks collected from camels

(*Camelus dromedarius*) as hosts and wild rodents as potential reservoirs. *Veterinary Research Communications.*, 48:3197–3207. 48:3197–3207 doi.org/10.1007/s11259-024-10488-9

Conferences & Workshops (Selected)

- Egyptian American Scientists Association Annual Conference, Cairo University (2012)
- International Training Course: Identification, Surveying & Control of *Anopheles gambiae*, RTC–Ain Shams University (2014)
- 9th International Conference of Veterinary Research Division, Cairo (2021)
- Ministry of Health Workshop: Mosquito Surveillance in Egypt, Giza (2024)
- Speaker of lecture “**Harnessing One Health for Sustainable Control of Vector-Borne Threats**” at International Conference of Central Laboratories of Ministry of Health -Egypt 8-9th November 2025

Languages

- English: IELTS 6.5 (2019), TOEFL iBT 79 (2008)
- Arabic: Native