# CURRICULUM VITAE

## Contact Information

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## Personal Data

**Date of birth: 9/12/1986**

**Place of birth: Egypt**

**Nationality: Egyptian**

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## Educational Background

- **B.Sc. May 2008 in Veterinary Medicine, Faculty of Veterinary medicine, Beni-Suef University, Egypt. (Grade: very good, Rank: fifth).**
- **MSC. 2013, in Fish Diseases and Management "Flavobacteriosis in Oreochromis Niloticus", Faculty of Veterinary medicine, Beni-Suef University, Egypt.**
- **PhD. 2018, in Fish Diseases and Management "Prevention of Edwardsiellosis in channel catfish, Ictalurus Punctatus, by constructed live attenuated vaccines" Faculty of Veterinary medicine, Beni-Suef University, Egypt.**
- **Current Position: Lecturer at Department of Fish Diseases and Management, Faculty of Veterinary medicine, Beni-Suef University, Egypt.**

## Employment History

- **2008 to 2012: Demonstrator in the Fish Department , Faculty of Veterinary Medicine, Beni-Suef University, Beni-Suef 62512, Egypt.**
- **2013 to 2017: Assistant Lecturer at Department of Fish Diseases and Management, Faculty of Veterinary Medicine, Beni-Suef University, Beni-Suef 62512, Egypt.**
- **2018 to present: Lecturer at Department of Fish Diseases and Management , Faculty of Veterinary Medicine, Beni-Suef University, Beni-Suef 62512, Egypt.**

## Publications

1. **"Dietary intervention of propolis and/or turmeric boosted growth, hematology, biochemical profile, and antioxidant-immune responses and their associated gene expression in Nile tilapia (*Oreochromis niloticus*) challenged with *Edwardsiella tarda"* in Aquaculture International 2025, doi.org/10.1007/s10499-024-01741-8**

2. **"Acrylamide exposure induces growth retardation, neurotoxicity, stress, and immune/antioxidant disruption in Nile tilapia (*Oreochromis niloticus*): The alleviative effects of *Chlorella vulgaris* diets" in Fish and Shellfish Immunology, 2024 Jan 30:146:109411. doi: 10.1016/j.fsi.2024.109411.**

3. **"The puzzling etiologies of transient black discoloration in Nile Tilapia (*Oreochromis niloticus*) intensively cultured under RAS system in Aquaculture International 2023, doi.org/10.1007/s10499-023-01328-9**

**3. "Impact of *Anisakis pegreffi* Infection on Gonadal Health and Gonadosomatic Index of European Hake (*Merluccius merluccius*)" in Journal of Applied Veterinary Sciences, 2023, Print: 1687-4072**

**4. "Prevention of *Citrobacter freundii* (MW279218) infection in Nile tilapia, *Oreochromis niloticus* using zinc oxide nanoparticles" in Journal of Fish Pathology, August 2022, DOI: 10.7847/jfp.2022.35.1.077 C.**

**5. "An *Edwardsiella piscicida* esaS mutant reveals contribution to virulence and vaccine potential" in Microbial pathogenesis Journal, volume 143, June 2020, 104108.**

**6. "Construction and evaluation of type III secretion system mutants of the catfish pathogen *Edwardsiella piscicida* " in Journal of Fish Diseases (2018) volume: 41, Issue:5**

## Contributions to Science

- **2015 Participant of Food Security for the Future: The Role of Aquatic Animal Health at Mississippi State University with a poster.**
- **2016 Participant of American Society for Microbiology at Louisiana State University, USA with an oral presentation.**
- **2016 Participant of 97th Conference of Research Workers in Animal Diseases (CRWAD) at Chicago, IL, USA with an oral presentation.**
- **2017 Participant of the First International Conference and Exhibition on Sustainable Development of Aquaculture (CLAR) at Cairo, Egypt with an oral presentation.**
- **2018 till present , Participant in FAO online virtual meeting concerning Fish diseases and biosecurity measures in fish farms and AMR.**

## Personal Statement

**I am a lecturer at Fish Diseases and Management, Faculty of veterinary medicine, Beni Suef University, Egypt with prior training in fish bacteriology and vaccine preparation. The focus of my research is gene mutation and molecular mechanisms of virulence of *Edwardsiella piscicida* as a model organism and evaluation of the constructed mutants through different in vitro (Growth kinetics, general characters, biofilm formation, hemolytic activity, Extra Cellular Proteins profiling) and invivo assays (Bioluminescence imaging, immune response and virulence determination and finally challenge experiment). My immediate goals are aimed at joining research group working on similar fields to continue my research on prevention of fish diseases.**

**Concise statement of past and future research interests**

**My past research was in fish bacterial diseases. During my master research, I had my research study in Flavobacteriosis in *Oreochromis Niloticus* (isolation, biochemical and molecular identification of the causative microorganism, prevention and control). During my doctoral research which was performed under the supervision of Professor**

**Mark L. Lawrence at department of basic science, college of veterinary medicine, Mississippi State University, I prepared five live attenuated vaccines from *E. piscicida* C07-087, the recently identified cause of edwardsiellosis in fish farms, by deleting five genes encoding structural proteins in the type III secretion system (T3SS) apparatus. The mutants were phenotypically characterized and their immune response, tissue persistence, virulence and efficacy as vaccines via immersion and intraperitoneal injection (i.p.) routes were evaluated. In addition, the cross-protection afforded by the previously prepared live attenuated *E. ictaluri* vaccine, ESC-NDKL1, against edwardsiellosis caused by *E. piscicida* C07-087 was investigated. Fish used in the PHD research was specificpathogen-free (SPF) channel catfish (*Ictalurus punctatus*). All the fish experiments were approved by the Institutional Animal Care and Use Committee (IACUC) at Mississippi State University. My Further research interest is preventing fish diseases in fish farms by developing effective and easily administered safe vaccines.**