

Islam Said Elalfy

*Department of animal, poultry and fish production
Faculty of Agriculture- Damanhour University
Email: islam.elalfy@agr.dmu.edu.eg | Tel: +20 1032055730*

Summary

Assistant Professor of aquaculture and Marine Biology with over 15 years of academic and research experience. Specialized in ichthyology, fish physiology, molecular genetics, and sustainable aquaculture systems. Proven expertise in teaching, graduate supervision, research publishing, and international collaborations. Trilingual: Arabic (native), English, and Spanish.

Education

- **Ph.D. (October 2016):** (cum maxima laude) from university of Las Palmas de Gran Canarias, Spain. With title “study of the second generation of gilthead sea bream (*sparus aurata* L.) within the genetic improvement program progensa® for commercial interest traits and implementation of new industrial enabling technologies, under culture conditions”.
- **Ms.C. (2010):** in aquaculture (cum maxima laude) from university of Las Palmas de Gran Canaria, Spain with title “Development of microsatellite multiplexes PCR for Gilthead seabream (*Sparus auratus* L.)
- **Postgraduate specialization diploma (2009)** in aquaculture (cum laude) from university of Las Palmas de Gran Canaria, Spain.
- **Specialist postgraduate degree in marine culture (2009)** from University of Las Palmas de Gran Canaria, Spain.
- **B.Sc. (2004):** Department of animal and poultry production, Faculty of Agriculture, University of Alexandria, Damanhour Branch, Egypt. With general mention “excellent with honor”.

Work Experience

- **Assistant professor (2017- present):** Faculty of Agriculture (Department of animal, poultry and fish production), Damanhour University, Egypt.
- **Assistant lecturer (2011- 2017):** Faculty of Agriculture (Department of animal, poultry and fish production), Damanhour University, Egypt
- **Teaching Assistant (2010 - 2011):** Faculty of Agriculture (Department of animal, poultry production), University of Damanhour, Egypt.
- **Teaching Assistant (2006 - 2010):** Faculty of Agriculture (Department of animal, poultry production), University of Alexandria, Damanhour Branch, Egypt.

Research Interests

- Fish Physiology and Endocrinology
- Ichthyology and Taxonomy
- Molecular Genetics in Aquaculture
- Sustainable Fisheries and Breeding Programs
- DNA Barcoding and PCR Applications in Fish Identification

Teaching Experience:

- Teaching the following courses for B.Sc. students in animal, poultry and fish production Department, Faculty of Agriculture, Damanshour University: nutrition in marine culture, Nutritional metabolism in fish, Fish Physiology, Fishing methods and Gears, Aquaculture and Aquatic Resources, Principles of Statistics in Animal, Poultry, and Fish Production and Biotechnology in Animal, Poultry, and Fish Production. Also teaching "Introduction in Marine Science" for the first level students. As well as "Blue Biotechnology" for students of the Biotechnology Program.
- Teaching the following courses for B.Sc. students in Animal Husbandry & Wealth Development Department, Faculty of Veterinary Medicine, Damanshour University: fish production and breeding for students of the General Program, fish production for students of the Pet Health and Diseases Program and animal, poultry and fish nutrition for students of the Food Quality Program.
- Teaching the following courses for postgraduate students (M.Sc. and Ph.D.) in Faculty of Agriculture, Damanshour University: Advanced - Fish and Crustacean Nutrition, advanced - Fish and Crustacean Physiology, advanced - Fish Breeding, Fish Farming and aquaculture systems and Aquatic environment.
- Supervision of graduation projects for B.Sc. students in the animal, poultry and fish production Department, Faculty of Agriculture, Damanshour University.
- Academic advising and supervision for students of the animal, poultry and fish production Department, Faculty of Agriculture, Damanshour University.
- Teaching for different age groups with the same proficiency.
- Teaching for students of different educational backgrounds.

Lab Skills and Knowledge Background***Molecular Biology:***

- Extraction of nucleic acids.
- Target specific primer and probe design.
- Isolation of genes by PCR.
- Gene sequence analysis.
- Annotation of genome sequences with software
- Cloning and directional cloning.
- Molecular biology and biotechnology.
- Wide experience in DNA extraction using manual and robotic method (Tecan SchweizAG, Switzerland and Biosprint (QIAGEN®))
- Wide experience in genetic analysis using different programs (GENEMAPPER, VITASSIGN, IMAFISH and VCE software)

Field skills:

- Fish and shrimp larval rearing.
- Production of live food.
- Bloodstock care.
- Nutritional requirement, alternative ingredients and feeding strategy for different fish species.
- Fish diet formulating and manufacturing (micro and macro).

- Chemical analysis of different ingredients of diets and fish tissues.
- Qualitative and quantitative determination of the fish digestibility.
- Hatcheries management and larval rearing by common methods and microdiets.
- Artificial spawning by hormone injection and studying the effect of photoperiod on this spawning.
- Extensive experience in breeding fish.

Publications

Under submission

- **Elalfy, I.**, Shin, H.S., Astorga, N., Navarro, A., Zamorano, M.J., Manchado, M., Afonso, J.M. 2025, Estimates of heritabilities and genetic correlations of some productive traits in a reared gilthead sea bream (*Sparus aurata*) population. Aquaculture.
- **Elalfy, I.**, Shin, H.S., Astorga, N., Navarro, A., Zamorano, M.J., Manchado, M., Afonso, J.M. 2025, Genetic parameters for raw flesh and carcass quality traits in a gilthead sea bream (*Sparus aurata* L.) at a weight of 1000 grams. Aquaculture Research
- **Elalfy, I.**, Shin, H.S., Astorga, N., Navarro, A., Zamorano, M.J., Manchado, M., Afonso, J.M. 2025, Genetic parameter estimations of growth and morphological quality traits on gilthead seabream (*Sparus aurata*) at a weight of 1000 grams. Aquaculture Research
- **Elalfy, I.**, Shin, H.S., Astorga, N., Navarro, A., Zamorano, M.J., Manchado, M., Afonso, J.M. 2025, Genetic parameter estimations of morphological quality traits on gilthead seabream (*Sparus aurata*) at a weight of 1000 grams. Aquaculture.

Published

- Mohamed A. A. Zaki, Hala Saber Khalil, Belal W. Allam, Riad H. Khalil, Mohammed F. El Basuini, Abd El-Aziz M. Nour, Eman M. H. Labib, **Islam S. E. Elkholy**, Marc Verdegem, Hany M. R. Abdel-Latif 2023, Assessment of zootechnical parameters, intestinal digestive enzymes, haemato-immune responses, and hepatic antioxidant status of *Pangasianodon hypophthalmus* fingerlings reared under different stocking densities. Aquaculture International, <https://doi.org/10.1007/s10499-023-01092-w>
- Selwan Harb Rabia, Octavio P. Luzardo, Raquel Pozo, Mostafa Abbassy, Manuel Zumbado, **Islam Elalfy**, Lidia Robania, Rafael Gines, 2022, Determination of heavy metals from Aloe vera by-product in golden mullet (*Liza aurata*); A consumer health risk assessment. Food and Chemical Toxicology, 169, 113418.
- Sergi Le'on-Bernabeu, Hyun Suk Shin, 'Alvaro Lorenzo-Felipe, Cathaysa García-Pérez, Concepción Berbel, **Islam Said Elalfy**, Eva Armero, Jaume Pérez-Sánchez, Marta Arizcun, María Jesús Zamorano, Manuel Manchado, Juan Manuel Afonso. 2021, Genetic parameter estimations of new traits of morphological quality on gilthead seabream (*Sparus aurata*) by using IMAFISH_ML software. Aquaculture Reports, 21, 100883.
- **Elalfy, I.**, Shin, H.S., Astorga, N., Navarro, A., Lee-Montero, I., Nour, A., Zamorano, M.J., Manchado, M., Afonso, J.M. 2021, Genetic Parameters for Quality Traits by Non-Invasive Methods and their G x E Interactions in Ocean Cages and

Estuaries on Gilthead Sea Bream (*Sparus aurata*). Aquaculture, 537, 736462.

- Carolina Figueroa, Pamela Veloso, Lenin Espin, Brian Dixon, Débora Torrealba, **Islam Said Elalfy**, Juan Manuel Afonso, Carlos Soto, Pablo Conejeros & José A. Gallardo. 2020, Host genetic variation explains reduced protection of commercial vaccines against *Piscirickettsia salmonis* in Atlantic salmon. Scientific Reports 10:18252.
- Davinia Negrin-Baez, Ivonne Lee-Montero, Ana Navarro, **Islam Said Elalfy**, Juan M. Afonso, Juan Sanchez, Maria J. Zamorano. 2015, A set of 13 multiplex PCR of specific microsatellites as a tool for QTLs detection in gilthead seabream (*Sparus aurata* L.). Aquaculture Research, 46, 45–58.
- **Islam Said Elalfy**. 2012. Marine genetics improvements. Lambert academic publishing. 100 p. ISBN: 3659286044.

Conferences

- **Islam Elalfy**, Suk Shin, Davinia Negrín, Ana Navarro, Maria Zamorano, Manuel Manchado, Juan Afonso, 2022. Estimation of genetic parameters and their GxE interactions by non-invasive methods for carcass traits on gilthead sea bream *sparus aurata*. Aquaculture Africa 2021, Alexandria, Egypt.
- Juan Manuel Afonso Lopez, Sergi Leon-Bernabeu, **Islam Said Elalfy**, Hyun Suk Shin, Alvaro Lorenzo-Felipe, Cathaysa Perez-Garcia, Maria Jesus Zamorano Serrano. 2019, PROJENSA[®]. Desarrollo de un programa de mejora genetica en dorada (*Sparus aurata* L.) entre la industria y cuatro centros de investigacion en Espana. Encuentro cientifico- tecnico chupa, Peru.
- Juan Manuel Afonso Lopez, Sergi Leon-Bernabeu, **Islam Said Elalfy**, Hyun Suk Shin, Alvaro Lorenzo-Felipe, Cathaysa Perez-García, Maria Jesus Zamorano Serrano. 2019, Aportes a la metodologia de vanguardia en biologia molecular y de genetica cuantitativa; aplicacion en especies ícticas nativas del Lago Titicaca Peru (genero *Orestiasy Trichomycterus*). Encuentro cientifico- tecnico chupa, Peru.
- Lorenzo-Felipe A, Zamorano MJ, Leon-Bernabeu S, **Elalfy I**, Perez-Garcia C, Manchado M, Perez-Sanchez J, Afonso JM, Shin HS. 2018, Genetic architecture of skeletal deformities in gilthead seabream. Oral Presentation, 5th Interdisciplinary Approaches in Fish Skeletal Biology. Portugal
- Shin, Hyun Suk; **Elalfy, Islam**; Zamorano, Maria Jesus; Negrin-Baez, Davinia; Lorenzo, Javier; Nour, Ayman; Manchado, Manuel; Afonso, Juan Manuel. 2017, Parametros geneticos para caracteres de calidad de la carne y sus relaciones con caracteres tecnologicos no invasivos, y esteros en dorada (*Sparus aurata*). Poster. XVI National Congress of Aquaculture. Spain.
- **Elalfy, Islam**; Shin, Hyun Suk; Zamorano, Maria Jesus; Negrin-Baez, Davinia; Nour, Ayman; Manchado, Manuel; Afonso, Juan Manuel. 2017, Parametros geneticos para caracteres de rendimiento y sus relaciones con caracteres tecnologicos no invasivos, y sus interacciones genotipo-ambiente en jaulas y esteros en *Sparus aurata*. Poster. XVI National Congress of Aquaculture. Spain
- **Elalfy, Islam**; Shin, Hyun Suk; Astorga, Nicolas; Navarro, Ana; Lee-Montero, Ivonne; Manchado, Manuel; Zamorano, Maria Jesus; Afonso, Juan Manuel. 2017, Estructura familiar en puestas masales consecutivas de dorada (*Sparus aurata* L.), bajo

condiciones industriales de cultivo. Oral Presentation, XVI National Congress of Aquaculture. Spain.

- Davinia Negrin-Baez, Ivonne Lee-Montero, Ana Navarro, **Islam Said Elalfy**, Juan M. Afonso, Juan Sanchez, Maria J. Zamorano. 2012, A set of 13 multiplex PCR of specific microsatellites as a tool for QTLs detection in gilthead seabream (*Sparus aurata* L.). Oral Presenter, IV National Congress of Aquaculture. Chile.

Research Projects

- Participating in the project "**UNIGREEN** – Higher education for climate change" 2022-2024, Funded by European Union (EU), Led by Life Makers Foundation (LMF) and Arab Academy for Science Technology and Maritime Transport (AASTMT).
- Technical director of the research project entitled "IMPLEMENTATION OF A BREEDING PROGRAM IN SHRIMP (*Litopenaeus vannamei*) (**ECUACANARIA**®), which is carried out between the BIOGEMAR company, Ecuador, and the Molecular Biology Laboratory of the High Specialization Aquaculture and Biotechnology Service (SABE) of the University of Las Palmas de Gran Canaria, Spain, 2019.
- Researcher in the research national project entitled "Implementation of **INNOvative TECHNOlogies** for genetic improvement in Senegalese sole (*Solea senegalensis*) and gilthead sea bream (*Sparus aurata*) for the optimization of industrial production (INNOTECCS)", awarded by the National Research Institute for Agricultural and Food Technology (INIA), Spain, 2016.
- Researcher in the research project entitled "Search of deformities QTLs in gilthead seabream" (AGL2008-04842/ACU), Spain, 2010."
- Researcher in the research national project entitled "Development of a pilot program of genetic improvement in gilthead seabream (**JACUMAR**, 2009), Spain."

Academic Experience

- Currently supervising Master's student Mohamed Zakaria, thesis titled "Role of probiotics in fish culture", Faculty of Agriculture, Damanhour University, expected completion: 2026.
- Currently supervising Master's student Mariam Kheder, thesis titled "Importance of Nano_feed additives in fish nutrition", Faculty of Agriculture, Damanhour University, expected completion: 2026.

Knowledge transfer and Research training

- Attend research training for 40 days on Biotecnología y Genética Marina Company (BIOGEMAR S.A, Ecuador).
- Transfer of scientific knowledge to the staff of BIOGEMAR S.A, Ecuador, for 40 days about the consanguinity control and the breeder evaluation.

Training & Certifications:

- **Facilitating Career Development (FCD)** Training, June 2025, The National Career Development Association (NCDA), The American University in Cairo
- **Certified Trainer**, July 2024, National Center for Training and Leadership, Supreme Council of Universities.
- **Certificate of Training of Trainers (TOT)**, May 2024, National Center for Training and Leadership, Supreme Council of Universities.
- Certificate of Achievement of the "**Human Resource Development**", Decembre 20 – 21, 2023. Faculty and Leadership Development Center (FLDC), Damanhour

University.

- Certificate of Achievement of the “**References Research Management Systems**”, Novembre 20 –21, 2023. Faculty and Leadership Development Center (FLDC), Damanhour University.
- Certificate of Achievement of the “**Anti-Corruption**”, Augst 28 –29, 2023. Faculty and Leadership Development Center (FLDC), Damanhour University.
- Certificate of Achievement of the “**Strategic Planning**”, Augst 23 –24, 2023. Faculty and Leadership Development Center (FLDC), Damanhour University.
- Certificate of Achievement of the “**Fundamentals of Digital Transformation**”. 2022, EKSE, Damanhour University.
- **Training program for envoys in foreign missions 2020-2021**, 11 - 19 January 2021. National Training Academy (NTA), Egypt.
- **GenePasQ- Shrimp Pathogen Detection Kit**. 15 – 18 January 2019, Marine Technological Science Park (PCTM)- University of Las Palmas de Gran Canaria (ULPGC)- Spain
- Certificate of Achievement of the “**E-Learning**”, September 7 –8, 2016. Faculty and Leadership Development Center (FLDC), Damanhour University.
- Certificate of Achievement of the “**Quality standardized in education process**”, September 5 –6, 2016. Faculty and Leadership Development Center (FLDC), Damanhour University.
- Certificate of Achievement of the “**Decision making and problem solving**”, from 29 August to 1 September 2016. Faculty and Leadership Development Center (FLDC), Damanhour University.
- Certificate of Achievement of the “**Crisis and disaster management**”, August 22 –23, 2016. Faculty and Leadership Development Center (FLDC), Damanhour University.
- Certificate of Achievement of the “**International publishing and scientific research**”, August 17 –18, 2016. Faculty and Leadership Development Center (FLDC), Damanhour University.
- Training course on "**Applications of molecular techniques in agriculture**". Held at the biotechnology unit, central lab., for the environmental studies, Kafrelsheikh university, Egypt, from 18- 20 March 2012.
- Certificate of Achievement of the “**Methods of scientific research**”, March 1 –3, 2011. Faculty and Leadership Development Center (FLDC), Alexandria University.
- Certificate of Achievement of the “**Effective Presentation Skills**”, February 25 – 27, 2011. Faculty and Leadership Development Center (FLDC), Alexandria University.
- Certificate of Achievement of the “**Research ethics**”, February 19 -21, 2011. Faculty and Leadership Development Center (FLDC), Alexandria University.
- Certificate of Achievement of the “**Communication Skills in Different Types of Education**”, February 19 -21, 2008. Faculty and Leadership Development Center (FLDC), Alexandria University.
- Certificate of Achievement of the “**Research methodology**” February 16 -18, 2008. Faculty and Leadership Development Center (FLDC), Alexandria University.
- Certificate of Achievement of the “**Credit Hours**” February 12 -14, 2008. Faculty and Leadership Development Center (FLDC), Alexandria University.

- Certificate of Achievement of the “Effective Teaching” February 9 -11, 2008. Faculty and Leadership Development Center (FLDC), Alexandria University.

Activities & Affiliations:

- **Career Development Specialist (CDS)**, university center for career development (UCCD), Damanhour university.
- Member of the **Department Council of Animal, Poultry, and Fish Production** at the Faculty of Agriculture, Damanhour University since 2020 to the present.
- **Secretary of the Department Council of Animal, Poultry, and Fish Production** at the Faculty of Agriculture, Damanhour University, from August 1, 2022 to July 31, 2023.
- Member of the **Community Service and Environmental Development Committee**, faculty of agriculture, Damanhour university.
- **Technical Supervisor of the Fish Farm**, Faculty of Agriculture, Damanhour University
- Member of **farm committee**, faculty of agriculture, Damanhour university.
- **Representative of the Ministry of Immigration’s Dialogue Center** for Egyptian Students Abroad (MEDCE) in Spain.
- **Media Coordinator** for the faculty of agriculture, Damanhour university.
- Member of the **IT Unit**, faculty of agriculture, Damanhour university.
- **Director of the Digital Portal**, Damanhour university.
- Member of the committee for **monitoring the implementation of the National Anti-Corruption Strategy** at Damanhour university.
- Board member of the **Agricultural Services Production and Marketing Unit**, faculty of agriculture, Damanhour university.
- Member of **Journal of Agricultural and Environmental Science**, Alexandria University, Egypt.
- Member of **Journal of Agricultural and Environmental Science**, Damanhour University, Egypt.
- Member of **Journal of aquaculture Science**, Alexandria, Egypt.
- Board member of the **association of Talae Eltanmia**, Beheira, Egypt.

Grants & Scholarships

- **Post-doctoral grant (2021)** awarded by the culture affairs and missions’ sector (Ministry of Higher Education), Egypt.
- **Doctoral grant (2014 -2016)** awarded by the culture affairs and missions’ sector (Ministry of Higher Education), Egypt.
- **Master scholarship (2008-2010)** awarded by the international Centre for advanced Mediterranean agronomic studies (CIHEAM), Spain.

Languages

- **Arabic:** fluent, written and spoken (native tongue).
- **English:** fluent, written and spoken.
- **Spanish:** fluent, written and spoken.