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- **Sex** Male
- **Date of birth** 2nd January 1988
- **Place of birth** Kalyubiya, Egypt
- **Nationality** Egyptian
- **Marital status** Married
- **Military status** Exemption

PROFESSIONAL EXPERIENCE

October 2019 – until now Certified International Professional **Trainer** at **Faculty and Leadership Development Center**, Cairo University. <http://fldc.cu.edu.eg/>

December 2017 – until now **Lecturer** of Anatomy and Embryology – Faculty of Veterinary Medicine – Cairo University. www.vet.cu.edu.eg

December 2013 – November 2017 **Assistant lecturer** of Anatomy and Embryology – Faculty of Veterinary Medicine – Cairo University.

April 2011- November 2013 **Demonstrator** of Anatomy and Embryology – Faculty of Veterinary Medicine – Cairo University.

EDUCATION and DEGREES

2019 **CIPT** Certified International Professional Trainer.
Got from "Faculty and Leadership Development Center, Cairo University"

PhD degree in Veterinary Medical Sciences "*Anatomy and Embryology*"

Got from "Faculty of Veterinary Medicine - Cairo University."

2014 – 2017 Title of Thesis: "Regulation of Muscle Mass Growth in Transgenic Vertebrates".

The PhD project was supported via scholarship (*Joint supervision*) for +2 years in Auburn University, Alabama, USA. The PhD project was funded from Culture Affairs and Mission Sector, Ministry of Higher Education, Government of Egypt.

Master degree in Veterinary Medical Sciences "*Anatomy and Embryology*"

2011 – 2013 Got from "Faculty of Veterinary Medicine - Cairo University."

Title of Thesis: "Comparative anatomical studies on the vascular architecture of the blood vessels of the testis of some farm animals".

2005 – 2010 **Bachelor degree** in Veterinary Medical Sciences from "Faculty of Veterinary Medicine - Cairo University". Overall Grade: **Very Good**.

GRANTS & AWARDS

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| May – October 2020
2018
2017/2018/2019
2015 - 2017 | <ul style="list-style-type: none"> • Postdoc at Auburn University, Alabama, USA. • Cairo University Encouragement Award in Biological Sciences. • International publication award from Cairo University. • Scholarship (Joint supervision) for two years in Auburn University, Alabama, USA. |
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MEMBERSHIPS

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- African Association of Veterinary Anatomist.
 - World Aquaculture Society.
 - Egyptian Aquaculture Society.
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Job – related Skills

FLDC

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- I am training faculty staff members on “International publishing of scientific research (15 hours Course)”.
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Gross anatomy and Microanatomy

- Dissecting and Teaching the anatomy of domestic animals which it serves in clinically significant features in some musculoskeletal and internal disorders .
 - Preparation of a museum plactinated specimens and skeletons, as the museums must change its nature from a place of exhibition only to a place of learn which the anatomy museum serves as an important resource and engages the students in self-directed learning.
 - Preparation of corrosive Casts and using latex injection techniques in studying of blood vessels.
 - Preparation of histological slides and microscopic image analyses.
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Embryology and Molecular Biology

- Using Gene editing tools (Designing, Delivery and genotype analyses).
 - Nucleic acid extraction and purification.
 - Primer designing and PCR.
 - Mutation detection techniques.
 - Molecular Cloning techniques.
 - Sequence analysis.
 - Microinjection and Electroporation.
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Fish Reproductive physiology and Hatchery Management

- Sexing and selection of Broad stocks.
 - Natural, Semi-artificial and Artificial Spawning.
 - Eggs and Semen Collection and Preparation.
 - Embryos and fry incubation and Fingerlings rearing.
 - Surgical operations for sexually mature fish for gonads collection.
 - Dealing with flow through and circulatory systems and different types of tanks and Aquaria and many types of water filters.
 - Water quality analyses and judgment.
 - Diagnosis and treatment for various diseases affected fresh water fishes.
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PERSONAL SKILLS

Languages:	Mother tongue: Arabic 2nd Language: English IELTS (Score = 6) & I had been in USA for +2 years.
Communication Skills:	<ul style="list-style-type: none"> ▪ Good communication and presentation skills gained through my experience as academic staff member at Faculty of Veterinary Medicine, Cairo University. I deal with about 300 students and graduates every year during practical sessions and lectures of anatomy and embryology which I deliver. (~ 16 hours/week). ▪ I have been involved in genetic team (20 member) in Dr. Dunham Lab (Auburn Univ.) during my PhD scholarship and I worked with them in 6 research projects along 27 months.
Organizational and Managerial Skills:	<ul style="list-style-type: none"> ▪ Every summer I responsible for student groups during summer clinical training at national research institutes, dairy farms and veterinary hospitals. ▪ I participated in organization committees of Six national and international conferences : <ul style="list-style-type: none"> • The 15th scientific conference (7th international) of Faculty of Veterinary Medicine, Cairo University. Ain Sokhna, Egypt. August, 2018 • The 24th Annual Congress of Egyptian Society for Animal Reproduction and Fertility. Giza – Hurghada, Egypt. February, 2014. • Use of Alternatives in Veterinary Education, Cairo University - Conference Center, Giza, Egypt. March, 2013. • The 5th scientific conference of Egyptian Society for Animal Management (Challenges facing Animal and Poultry Wealth: A Future Vision), Cairo – Sharm-EL sheikh, Egypt. September, 2012. • The 11th scientific conference (3rd international) of Faculty of Veterinary Medicine, Cairo University. Cairo – Hurghada, Egypt. May, 2011.
Computer Skills:	<ul style="list-style-type: none"> • ICDL version 4.0 (International Computer Driving License). • Photoshop CS4. • ImageJ / FIJI (Java-based image processing program). • Good Command of gene editing and sequence analysis software. • R – Programming Language.

PUBLICATIONS

- **Author Name:** *Karim Khalil*
- **ORCID:**  <http://orcid.org/0000-0002-0907-5733> **Scopus ID:** 57193646566

No.	Title	Journal	Year	Doi
1	Relationship between Angioarchitecture of the Testicular Artery and Spermogram Parameters in Egyptian Buffalo Bulls (<i>bubalus bubalis</i>)	Reproduction in Domestic Animals	2020	10.1111/rda.13635
2	Effects of Cecropin Transgenesis and Interspecific Hybridization on the Resistance to <i>Ichthyophthirius multifiliis</i> in Channel Catfish and Female Channel Catfish × Male Blue Catfish Hybrids.	North American Journal of Aquaculture	2019	10.1002/naaq.10096
3	The Y chromosome sequence of the channel catfish suggests novel sex determination mechanisms in teleost fish.	BMC Biology	2019	10.1186/s12915-019-0627-7

4	Effects of CRISPR/Cas9 dosage on TICAM1 and RBL gene mutation rate, embryonic development, hatchability and fry survival in channel catfish.	Scientific Reports	2018	10.1038/s41598-018-34738-4
5	Microinjection of CRISPR/Cas9 Protein into Channel Catfish, <i>Ictalurus punctatus</i> , Embryos for Gene Editing	J. Vis. Exp.	2018	10.3791/56275
6	Generation of Myostatin Gene-Edited Channel Catfish (<i>Ictalurus punctatus</i>) via Zygote Injection of CRISPR/Cas9 System.	Scientific Reports	2017	10.1038/s41598-017-07223-7
7	Erratum: Aquaculture genomics, genetics and breeding in the United States: Current status, challenges, and priorities for future research.	BMC Genomics	2017	10.1186/s12864-017-3557-1
8	Gross anatomical studies on the pattern and density of the tunica vasculosa testis in some farm animals.	BVMJ	2014	

CONFERENCES and MEETINGS

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- The **Asian-Pacific Aquaculture 2019**. [Chennai, India](#).
- June, 2019** Title of Presentation: Production of Yeast-Based Vaccine for Growth Enhancement in Aquaculture.
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- The **15th scientific conference (7th international) of Faculty of Veterinary Medicine**, Cairo University. [Ain Sokhna, Egypt](#).
- August, 2018** Title of Presentation: Regulation of Muscle Mass growth via Microinjection of CRISPR/Cas9 Protein into Channel Catfish, *Ictalurus punctatus*, One-cell Embryos targeting Myostatin Gene.
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- The **World Aquaculture Society Meeting 2017**. [San Antonio, TX, USA](#).
- February, 2017** Title of Poster: Microinjection of CRISPR/Cas9 protein into channel catfish, *Ictalurus punctatus*, embryos to knockout genes.
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- Graduate Student Agricultural Poster** (Auburn Univ.). [Auburn, AL, USA](#).
- October, 2016** Title of Poster: Microinjection of CRISPR/Cas9 protein into channel catfish, *Ictalurus punctatus*, embryos to knockout genes.
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- The **World Aquaculture Society Meeting 2016** (Aquaculture 2016). [Las Vegas, NV, USA](#).
- February, 2016** Title of Poster: Altering melanocortin-4 receptor activity in channel catfish, *Ictalurus Punctatus*, using CRISPR/Cas9 system.
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- Georgia and Alabama chapters of the American Fisheries Society**. [Columbus, GA, USA](#).
- February, 2016** Title of Presentation: Comparison of Induced Mutations in Ticam 1 Gene in Different Tissues of Channel Catfish, *Ictalurus punctatus*.
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- The 2nd **Annual International Conference on VETSCI 2014** (Advances in Veterinary Science Research). [Singapore](#).
- November, 2014** Title of Presentation: Angioarchitectural Patterns of the Testicular Arteries.
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- The 24th **Annual Congress of Egyptian Society for Animal Reproduction and Fertility**. [Giza – Hurgada, Egypt](#).
- February, 2014** Title of Presentation: Angioarchitectural Patterns of the Testicular Vessels.
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- Use of **Alternatives in Veterinary Education**, Cairo Univ., [Giza, Egypt](#).
- March, 2013**
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- The 5th **scientific conference of Egyptian Society for Animal Management** (Challenges facing Animal and Poultry Wealth: A Future Vision), [Cairo – Sharm EL sheikh, Egypt](#).
- September, 2012**
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May, 2011 The 11th scientific conference (3rd international) of Faculty of Veterinary Medicine, Cairo University. [Cairo – Hurghada, Egypt.](#)

TRAINING

December 2019	Introduction to applied statistics using R-Program , 30 Hours training course, Cairo University, Egypt
April 2016	Intensive training on CRISPR technology in Dr. Page-McCaw Lab, Department of Molecular Physiology and Biophysics, Vanderbilt University, Nashville, TN, USA.
	Laboratory and Hatchery orientations in North Auburn Station , School of Fisheries, Aquaculture and Aquatic Sciences, Auburn University, Auburn, AL, USA.
	Online Training course: <ul style="list-style-type: none"> • Biosafety. • Animal Resources Core Training. • Animal Emergency Care Plan.
May - October 2015	Live sessions on Lab Safety and Biosafety in College of Sciences and Mathematics, Auburn University, Auburn, AL, USA.
January and February 2011	Training course on Adobe Photoshop CS4 at information systems institute, Ministry of Defense, Egypt.
October – December 2010	Intensive training course on poultry industry in Egypt at "Delta vet. Center Company." http://www.delta-vet.com
July 2008	Training course on " Application of Modern Technology for Diagnosis of Infectious Agent " at B.C.S.R (Biotechnology Center for Services and Researches) Faculty of Veterinary Medicine, Cairo University, Egypt. www.vet.cu.edu.eg
July 2008	Training course on Emergency – 1st Aid at Medical Department of International Cultural Center, Egypt.
July 2008	Training course at El-Zahraa Station for Arabian Horses Management , Egypt.

WORKSHOPS , SEMINARS & MODULES

March, 2019	Workshop on "Your Postdoc Career in Germany – Opportunities for Outstanding Scientists." Cairo Liaison Offices of Freie univ. Berlin & Technische Univ. Munchen , DAAD Cairo, Egypt.
January, 2018	Workshop on "Uses of ultrasonography & endoscope in veterinary medicine." Faculty of Vet. Med., Cairo University, Egypt.
December, 2017	Workshop on "The applications of imageJ and Photoshop program in analyzing the scientific images." Central Lab, Faculty of Vet. Med., Suez Canal University, Egypt.
March, 2016	Workshop on "Aquaculture Genomics, Genetics and Breeding". Auburn University, Auburn, AL, USA.
February, 2012	The workshop of Cairo Univ. research project "Influenza Pandemics and Aquatic Animals: Ecological and Epidemiological Perspectives". Cairo University, Egypt.

Programs of FLDC (Faculty and Leadership Development Center, Cairo University.) as follow:

January, 2019	University management (15 hours).
October, 2018	Entrepreneurship (15 hours).
May, 2018	Problem-based learning (15 hours).
March, 2018	Statistical Analysis of Bio-Experiments (15 hours).
December, 2017	Exams and Students Evaluation Systems (15 hours).
May, 2015	University Code of Ethics (15 hours).

January, 2015	Competing for Research Funds (15 hours).
October, 2014	Effective Teaching Skills (15 hours).
June, 2014	Quality Standards in Teaching (15 hours).
January, 2014	Managing Research Teams (15 hours).
December, 2013	International Publishing (15hours).
February, 2013	Conference Organization (15hours).
November, 2012	Use of Technology in Teaching (15 hours).
July, 2012	Credit Hours Systems (15 hours).
January, 2012	Effective Presentation Skills (15 hours).
October, 2011	Communication Skills (15 hours).
June, 2011	Research Ethics (15 hours).

Modules of DAAD Cairo Akademie (Deutscher Akademischer Austausch Dienst) as follow:

March, 2013	"Proposal writing GERLS".
March, 2013	"Researchers Guidelines Training program". Part II. (DAAD Cairo Akademie at Bibliotheca Alexandrina).
October, 2012	"Researchers Guidelines Training program". Part I. (DAAD Cairo Akademie at Bibliotheca Alexandrina).
February, 2012	"Proposal Writing Post Docs". (DAAD Cairo Akademie at Cairo University).
