

# Omar Khadrawy

Name Omar Khadrawy  
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Birth 11.10.1987 in Sohag, Egypt



## Work Experiences

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April 2015 – present

**Institute of animal breeding and genetics, Bonn University**

DAAD scholarship (Ph.D) – Researcher in Institute of animal breeding and genetics

- Investigate the cellular response of bovine granulosa cells and preimplantation embryos against oxidative stress and molecular regulation of Nrf2 gene (key transcription factor mediated oxidative stress response)
- Study the impact of oxidative stress on bovine granulosa cell function (cell proliferation, intracellular ROS and mitochondrial activity) and protective effect of Nrf2 activators in cellular protection against oxidative stress

July 2011 – October 2014

**Faculty of veterinary medicine, Sohag University – Sohag, Egypt**

Researcher and lecturer assistant

- Teaching the practical part of animal reproductive physiology, reproductive disorders and assisted reproductive technologies (ARE).
- Investigate and modify different estrous synchronization in dairy farms and its implication on cow reproductive performance.

March -July 2011

**Faculty of veterinary medicine, South valley university – Qena, Egypt**

Teaching assistant in department of animal reproduction

- Responsible for teaching the practical part of animal reproductive physiology, reproductive disorders and assisted reproductive technologies (ART).

## Education

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2015 – present

**Institute of animal breeding and genetics, Faculty of agriculture, Bonn University**

Ph.D. in animal breeding and molecular reproduction, expected by end of 2018

2010– 2013

**Faculty of veterinary medicine, South valley university – Qena, Egypt**

M.Sc.: Animal breeding and reproduction

- Graduate with Excellence grade

2004 – 2009

Faculty of veterinary medicine, South valley university – Qena, Egypt

Bachelor of science, Veterinary medicine

- Graduated with Excellence grade

## Knowledge and skills

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### Languages

Arabic is native language

English very good in speech and writing

German good in speech and writing

### Laboratory skills

- Worked as diagnostic laboratory manager for 3 years
- Responsible for human patient sample collection and documentation
- Perform clinical diagnostic analysis (liver, kidney function tests, hormonal assay ... etc.)

### Molecular biology

- DNA isolation, RNA isolation, plasmid and genomic DNA isolation
- Gene cloning, PCR, qPCR, DNA sequence analysis
- Flow Cytometry, protein isolation, fluorescent microscopy, Luciferase reporter assays and western blot, mitochondrial activity assay

### Genetics

- Epigenetic regulation of Nrf2 gene through the microRNA activity
- Exogenous manipulation of Nrf2 gene to counteract the effect of oxidative stress
- Little knowledge regarding to other mechanisms regulating gene activities, such as: DNA methylation, histone modification, cell communication mechanism based on small things "exosomes", and gene editing tool "CRISPR/Cas9"

### Cell culture (bovine granulosa cells)

Transfection optimization, plasmid transfection and RNAi knockdown

### Organizational skills

- Multiple presentations (30) about Animal Reproduction and improvement of Fertility in Egypt in the last period, Sohag Province and Sohag University
- Member of the planning committee for making the strategy plane of the faculty of Veterinary Medicine, South Valley University 2010-2011
- Training on the "How the use of global databases and how to obtain information from. "ICTP "information & communication technology project"
- Training on the "Management of Research Team". "FLDC "Faculty & Leadership Development Center
- Training on the "Test Evaluation". "FLDC "Faculty & Leadership Development Center

## Publications

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- "MicroRNA-153,28/708 regulates Nrf2 expression under oxidative stress conditions in bovine granulosa cells" ... (in progress)
- "Quercetin modulated Nrf2 oxidative stress response in bovine preimplantation embryos is mediated by miRNA-153, 28 and 708" ... (in progress)

## Reference

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*Prof.Dr. Karl Schellander*

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