

Ossama Khalaf



SUMMARY

Experienced pharmacist/neuroscientist with a demonstrated history working in academia. Skilled in behavioral and molecular neuroscience using different transgenic animal models, microscopy, cell biology, and pharmacology. Holds great experience in project management, mentoring, as well as communications. Very dynamic and a well-appreciated team player.

CONTACT INFORMATION

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Address

U2 9-11 Queens Ave - NSW 2011 - Australia

Egyptian

02. 11. 1982

Married

EDUCATION

Doctorate in Neuroscience - 2017

Swiss Federal Institute of Technology (EPFL) – Lausanne, Switzerland.

Thesis project on remote traumatic memories

Master's in Biotechnology - 2013

American University in Cairo (AUC) – Cairo, Egypt.

Thesis project on Neurogenetics carried out at UT Southwestern Medical center in Dallas, Texas (2008 - 2012).

Bachelor's of Pharmacy - 2005

Helwan University – Cairo, Egypt.

Magna cum laude (2000 - 2005)

WORK EXPERIENCE

Post-doctoral Researcher – Vissel lab (CNRM)

University of Technology Sydney (UTS) – Sydney, Australia.

February 2020 - till date

Post-doctoral Researcher – Brain Mind Institute (BMI)

Swiss Federal Institute of Technology (EPFL) – Lausanne, Switzerland.

August 2017 - March 2019

WORK EXPERIENCE (Cont'd)

□ Doctoral Assistant – Gräff Lab, Brain Mind Institute (BMI)

Swiss Federal Institute of Technology (EPFL) – Lausanne, Switzerland.

October 2012 - July 2017

□ Junior Research Fellow – Robin Hiesinger Lab, Physiology Department

UT Southwestern Medical Center – Dallas, Texas - USA.

July 2011 - October 2012

□ Teaching Assistant – School of Sciences and Engineering (SSE), Biology Department

The American University in Cairo (AUC) – Cairo, Egypt.

September 2008 - June 2011

□ Research Assistant – Industrial Pharmacy Lab

National Research Center (NRC) – Cairo, Egypt.

March 2006 – May 2007

TECHNICAL SKILLS

□ In vivo and Animal behavior

Great experience with transgenic animal models - performing learning and memory tests - intracranial stereotaxic surgeries - viral vectors injection - transcatheter perfusion - breeding and maintenance of colonies - License to work with animals and administering viral vectors and pharmacological drugs - formulating different pharmacological controlled-release dosage forms and testing them.

□ Histology

Brain sectioning and tissue microdissection using different tools - histological staining - catFISH (cellular compartment analysis of temporal activity by fluorescence In situ Hybridization).

□ Molecular Biology

Mammalian cell culture - transfection - protein expression and purification using HPLC - protein, DNA, and RNA extraction - genotyping - cloning - Immunoblotting - Immunostaining - RT-qPCR - FACS (cell sorting) - advanced microscopy.

□ Statistics and software

Graphpad prism - Noldus Ethovision - Image J - Adobe illustrator and photoshop - Microsoft office suite (Word, Excel, and powerpoint).

□ Management and Teaching

Project management - planning, executing, and analysing many projects in parallel - Supervision of masters students (over 10 students) – teaching courses (Cairo and Lausanne).

□ Public Speaking

Large prowess in public speaking and coaching for public speaking - received awards in local and international contests

SELECTED PUBLICATIONS

❑ O. Khalaf, S. Resch, L. Dixsaut, V. Gorden, L. Glauser, J. Gräff

Reactivation of recall-induced neurons contributes to remote fear memory attenuation.

Science, 2018; 360 (6394): 1239-1242

❑ O. Khalaf and J. Gräff - *Structural, Synaptic and Epigenetic Dynamics of Enduring Memories.*

Neural Plasticity, volume 2016 - p. 3425908, 2016

❑ O. Khalaf, B. Fauvet, A. Oueslati, *et al.* - *The H50Q mutation enhances alpha-synuclein aggregation, secretion, and toxicity.*

Journal of Biological Chemistry, 2014; 289 (32): 21856-76

AWARDS

❑ International Society of Neurochemistry travel award

Coimbra, Portugal - June 2016.

❑ ENCODS Neuroscience Conference

Best talk award

Sesimbra, Portugal - April 2015.

❑ Seeing Life Science (Voir est Savoir)

Most Scientific Insight Prize

School of Life Sciences, EPFL - November, 2014.

❑ Swiss FameLab Finals

First Prize for Jury and Audience Awards

Zurich, Switzerland - May 2016.

❑ Hall of FameLab

First Prize for Jury and Audience Awards

Natural History Museum - London, UK - October 2016.

❑ Science Slams - First Prize

Helsinki, Finland- November 2016.

Berlin, Germany - March 2017.

TEACHING

- ❑ **Introductory Biology (BIOL-103)** - 2009
Biology Department – School of Sciences and Engineering
American University in Cairo (AUC) - Egypt
 - ❑ **Genetics (BIOL-221)** - 2010
Biology Department – School of Sciences and Engineering
American University in Cairo (AUC) - Egypt
 - ❑ **Biochemistry (BIO111)** – 2012/2013
School of Life Sciences
Swiss Federal Institute of Technology (EPFL) – Lausanne, Switzerland.
 - ❑ **Integrated laboratory for life sciences (BIO203 & BIO204)** – 2013/2014
School of Life Sciences
Swiss Federal Institute of Technology (EPFL) – Lausanne, Switzerland.
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SUPERVISED PROJECTS

- ❑ **The relationship between context-impooverished fear memory, consolidation, and update.**
Weitian Sun - Doctoral thesis, expected 2022
University of Technology Sydney - Australia
 - ❑ **Investigating the cell populations involved in the relapse of remote fear memory.**
Jacqueline White - Honour's thesis, 2020
University of Technology Sydney - Australia
 - ❑ **Identification of neuronal population of remote fear extinction using catFISH.**
Victoire Gorden- Masters thesis, 2017
EPFL - Lausanne
 - ❑ **Neuronal populations of successful attenuation of remote fear memory.**
Siegfried Resch - Masters thesis, 2015
University of Applied Sciences - Austria
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EXTRACURRICULAR ACTIVITIES

- ❑ **Toastmasters Club President**
EPFL-UNIL club
July 2016 - July 2017
- ❑ **Science Communication Mentor**
British council SchoolLab competition
Boulogne-Sur-Mer, France / March 2017
Denain, France / February 2018
- ❑ **The “Biotech Wave” Newsletter**
Founder and Editor, 2008 - 2011
AUC - Cairo, Egypt.
- ❑ **Parachuting Instructor**
Static line, 2002- 2003
Cairo, Egypt

ACHIEVEMENTS

☐ Representing Switzerland in various International Science communication competitions and winning them.

Link1: Hall of FameLab - Natural History Museum. London - UK

<https://www.youtube.com/watch?v=pJWwjV5DHaU&t=36s>

Link2: European Science Slam Finals. Brno, Czech Republic.

https://www.youtube.com/watch?list=PLMizXmi6MEKVhVwA1n_fZXeudCW9XEBns&v=VX4w-o7c-h8

LANGUAGE SKILLS

☐ **Arabic:** Mother tongue

☐ **English:** Fluent (C2 Level)

☐ **French:** Proficient (C1 Level)

REFERENCES

Prof. Johannes Graeff – Director of the neuroepigenetics lab , Brain Mind Institute – EPFL
E-mail: johannes.graeff@epfl.ch
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Prof. Hilal Lashuel – Director of the molecular neurobiology and neuroproteomics lab , Brain Mind Institute – EPFL
E-mail: hilal.lashuel@epfl.ch
Phone: +41 (0) 21 69 39691

Prof. Peter Robin Hiesinger – Professor of neurobiology , Free University of Berlin
E-mail: robin@flygen.org
Phone: +49 30 838 58698

Prof. Bryce Vissel – Director of the Centre for Neuroscience and Regenerative Medicine (CNRM)
E-mail: bryce.vissel@uts.edu.au
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