SEHAM **ELABD**

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Medical Research Institute, Alexandria University, Egypt.

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EXPERIENCE

JANUARY 2016- DECEMBER 2018

POSTDOC FELLOW, MOLECULAR BIOLOGY, DFG PROJECT, ITG-KIT, GERMANY

Molecular mechanisms of gene regulation and targeted cancer therapy.
karlsruhe institute of technology (KIT), institute of toxicology and genetics (ITG), Karlsruhe, **Germany**.

MARCH 2014 – DECEMBER 2015

VISITING FELLOW, MOLECULAR BIOLOGY, ITG-KIT, GERMANY

Stem cell biology and targeted therapy.
karlsruhe institute of technology (KIT), institute of toxicology and genetics (ITG), Karlsruhe, **Germany**.

2013-TILL NOW

LECTURER, HUMAN PHYSIOLOGY DEPARTMENT, MEDICAL RESEARCH INSTITUTE, ALEXANDRIA UNIVERSITY, EGYPT

EDUCATION

2013

PHD IN PHYSIOLOGY, FACULITY OF SCIENCE, ALEXANDRIA UNIVERSITY.

Effect of oxytocin administration on blood glucose level and bone remodeling in diabetic albino rate

2007

M.SC IN PHYSIOLOGY, FACULITY OF SCIENCE, ALEXANDRIA UNIVERSITY.

Effect of oxytocin administration on bone remodeling in male albino rats.

2001

B.SC IN BIOLOGY, FACULITY OF SCIENCE, ALEXANDRIA UNIVERSITY.

2 majors Chemistry & Zoology.

PUPLICATIONS

1. Kuznik NC, Solozobova V, Lee II, Jung N, Yang L, Nienhaus K, Ntim EA, Rottenberg JT, Muhle-Goll C, Lei Q, Gräßle S, Lewandowski EM, Munuganti RS, Deville C, Cato L, **Elabd S**, Dilger M, Weiss C, Chen Y, Blattner C, Gourain V, Zoubeidi A, Bruno Kieffer B, Nienhaus U, Bräse S, Brown M, Cat AC. Targeting the N-terminus of the androgen receptor for prostate cancer therapy. **Mol. Cell.** Manuscript preparation.

2. Salama M, Saleh ZM, Ahmed A, **Elabd S**. Citalopram, an antipsychotic agent, induces G1/G0 phase cell cycle arrest and promotes apoptosis in human laryngeal carcinoma HEP-2 cells. **Biological Research**. Submitted.

3. **Elabd S,** Pauletto E, Solozobova V, Eickhoff N, Padrao N, Zwart W, Blattner C. TRIM25 targets p300 for degradation. **Life Science Alliance.** 2023, 6 (12): e202301980. **(Q1 health, toxicology and mutagenesis)**

4. Shawki MM, El Sadieque A, **Elabd S**, Moustafa ME. Synergetic Effect of Tumor Treating Fields and Zinc Oxide Nanoparticles on Cell Apoptosis and Genotoxicity of Three Different Human Cancer Cell Lines. **Molecules**. 2022, 27 (14), 4384. **(Q1 biophysics biology)**

5. El Sadieque A, Shawki M, **Elabd S**, Moustafa M. The Cytotoxicity of ZnO NPs on Breast Cancer Cell Lines MCF-7 Depending on the Dispersion Solution. **Physics of Particles and Nuclei Letters.** 2022, 19 (3), 282-284. **(Q1 biophysics biology)**

6. **Elabd S**, Jabeen NA, Gerber V, Peravali R, Bourdon J, Kancherla S, Vallone D, Rastegar S, Blattner C. Delay in development and behavioral abnormalities in the absence of p53 in zebrafish. **PLoS One.** 2019 Jul 19;14(7):e0220069. doi: 10.1371/journal.pone.0220069. eCollection 2019. **(Q1 molecular biology)**

7. Salama M, Benitez-Riquelme D, **Elabd S**, Munoz L, Zhang P, Glanemann M, Mione MC, Goldin R, Soussi T, Davidson G, Blattner C. Fam83F induces p53 stabilisation and promotes its activity. **Cell Death Differ.** 2019 Jan 28. doi: 10.1038/s41418-019-0281-1. **(Q1 molecular and cell biology)**

8. Rodrigues M, Antonucci I, **Elabd S**, Kancherla S, Marchisio M, Blattner C, Stuppia L. p53 Is Active in Human Amniotic Fluid Stem Cells. **Stem Cells Dev**. 2018 Nov 1; 27(21):1507-1517. doi: 10.1089/scd.2017.0254. **(Q1 hematology)**

9. **Elabd S**, Andrew C. B. Cato, Christine Blattner. Tripartite Motif Proteins - A Protein Family Strongly Linked to Cancer. **Ann Pharmacol Pharm.** 2017; 2(10): 1057.

10. **Elabd S**, Meroni G, Blattner C. TRIMming p53's anticancer activity. **Oncogene**. 2016 Oct 27; 35(43):5577-5584. **(Q1 genetics/cancer research/molecular biology)**

11. Zhang P, Kratz AS, Salama M, **Elabd S**, Heinrich T, Wittbrodt J, Blattner C, Davidson G. Expression screening using a Medaka cDNA library identifies evolutionarily conserved regulators of the p53/Mdm2 pathway. **BMC Biotechnol**. 2015 Oct 8; 15(1):92. doi: 10.1186/s12896-015-0208-y. **(Q1 biotechnology)**

12. Zhang P, **Elabd S**, Hammer S, Solozobova V, Yan H, Bartel F, Inoue S, Henrich T, Wittbrodt J, Loosli F, Davidson G and Blattner C. TRIM25 has a dual function in the p53/Mdm2 circuit. **Oncogene**. 2015 Mar 2, 1–10. **(Q1 genetics/cancer research/molecular biology)**

13. **Elabd S**, Sabry I. Two Birds with One Stone: Possible Dual-Role of Oxytocin in the Treatment of Diabetes and Osteoporosis. **Front Endocrinol** (Lausanne). 2015 Aug 10; 6:121. doi: 10.3389/fendo.2015.00121. **(Q1 Endocrinology/ diabetes/metabolism)**

14. **Elabd S**, Sabry I, Mohasseb M, Algendy A. Oxytocin as a novel therapeutic option for type I diabetes and diabetic osteopathy. **Endocr Regul.** 2014 Apr; 48(2):87-102. **(Q3 Endocrinology/ diabetes/metabolism)**

15. **Elabd S**, Sabry I, Hassan WB, Nour H, Zaky K. Possible neuroendocrine role for oxytocin in bone remodeling. Endocr Regul .2007 Nov; 41(4):131-41. **(Q3 Endocrinology/ diabetes/metabolism)**

SUPERVISION OF THESIS

MASTER THESIS:

1. Master Thesis of Molecular Biology of **Menna Allah Magdy. Title**: Role of ubiquitin ligases in the p53-mediated cell cycle control in cancer cells.

2. Master Thesis of Molecular Biology of **Doaa Taha**. **Title**: Evaluation of possible effect of endotoxins on cancer cell response to therapy.

3. Master Thesis of Histochemistry and cell biology of **Shahinaz Kabany**. **Title**: The possible mechanism of oleuropein in lung cancer by targeting cellular autophagy: *in vivo* and *in vitro* studies.

4. Master Thesis of Medical Biophysics of **Alaa El Sadieque**. **Title**: Synergetic effect of low intensity intermediate frequency electric field and zinc oxide nanoparticles on different tumor cell lines.

5. Master Thesis of Histochemistry and cell biology of **Sara Mohamed. Title**: Possible antidabetic effect of puerarin and formononetin by targeting DNA damage in streptozotocin-induced Diabetes Mellitus: *in vivo* study.

6. Master Thesis of Medical Physics of **Eman Mohamed Ahmed**. Title: effect of ultraviolet radiation A on male rat liver.

7. Master Thesis of Medical Physics of **Noran Ahmed Aly.** T**itle**: Comparing the impact of Tumor treating electric fields with the static and alternating electromagnetic fields on Breast Cancer Cell line (MCF-7).

8. Master Thesis of Medical Biophysics of **Sara Abd-Elsatar.** T**itle**: Study the effect of electromagnetic field on colorectal cancer cell line (HCT 116) in the presence of different concentrations of TiO2 nanoparticles.

PHD THESIS:

9. PhD Thesis of Medical Biophysics of **Motaz Mohamed Fahmy**. **Title**: Determination the effect of frequency change on the permeability and viability of liver cancer cell line.

10. PhD Thesis of Medical Biophysics of **Ghada Maraay**. **Title**: Identification the opemum electrode-related factors required to improve the effcieny of breast cancer cell line electric therapy.

11. PhD Thesis of Biochemistry of **Yasmin Shahin**. **Title**: The possible antitumor action of sophocarpine in human breast cancer cell lines.

12. PhD Thesis of Molecular Biology of **Aya Fahmy**. **Title**: The possible impact of insect miRNAs on human cancer cells.

13. PhD Thesis of Human Physiology of **Hala Eltony**. **Title**: level of angiotensin converting enzyme 2 receptor in serum of asthmatics.

SKILLS

- Genome editing (Knockout and Knockin) by CRISPR-Cas9 system.
- *Invitro* transfection by siRNA, shRNA and Gene construct.
- Cloning, RT-PCR, q-RT-PCR and gel electrophoresis.
- Reporter gene assay
- Nuclear and cytoplasmic fractionation methods.
- Western Blotting and 2D electrophoresis.

- GST pull down assay, Immunoprecipitation (IP) and CO-IP.
- Ubiquitanation and SUMOylation assay.
- Immunoflourscence – confocal Microscopy.
- Histology, Immuno-histochemistry and Electron-microscopy.
- Cell culture for mammalian cancer cell lines, stem cells and primary cells.
- Comet assay
- DNA fragmentation assay
- Migration assay and transwell assay.
- Cell proliferation, Colony formation and MTT assay.
- EU license to work with Medaka and Zebrafish model.
- Experimental model of several diseases.
- Radioimmunassay (RIA).
- Enzyme-linked immunosorbent-assay (ELISA).

ACTIVITIES

WORKSHOPS:

- Certificate of attendance the workshop of **Biobanks**, in academy of scientific research and technology, Egypt (18 /9/2022).
- Certificate of attendance the workshop of **Biobanks for better health and research**, in TBRI biobank for liver diseases: research translation and precision medicine in hepatology, Egypt (5 /7/2022).
- Impressions of the training School "**In vivo analysis of ubiquitylation and SUMOylation**" held from 4-8 September 2017 in Paris, France. COST Proteostasis.
- **International Zebrafish and Medaka Course (IZMC) - training in the handling, husbandry, breeding, anesthesia, fin clipping and euthanasia of zebrafish and medaka** using the facilities of the EZRC and the associated KIT-Institute of Toxicology and Genetics, from 8-12 February 2016 in Karlsruhe, Germany.
- Certificate of attendance the workshop of **Basic techniques in cell culture**, in medical technology center, Egypt (16-18 /7/2012).
- Certificate of attendance the workshop of **References and mangment (using: EndNote X5**), in Quality assurance center, MRI (25/6/2012).
- Certificate of attendance the workshop of **Biomedical Nanotechnology**, in medical technology center (7-9 /4/2012).

- Certificate of attendance the workshop of **Fundamentals of Molecular Biology and Bioinformatics**, in medical technology center (4-8/9/2011).
- Certificate of attendance the workshop of **Creating and manipulation data files using SPSS**, in Quality assurance center, MRI (26/7/2011).

CONFERENCES & SCIENTIFIC MEETING:

- **EAEDA ENDO Summit 2023.** 28th annual scientific summit of the Egyptian Association of Endocrinology, Diabetes and Atherosclerosis. 13-15 September 2023. Egypt
- Attendance the annual international conference of Egyptian society of endocrinology and obesity**.** 24-25 may 2023. Egypt
- Attendance the 19th conference of medical research institute and 7th international conference on **Milestone in cancer research from genomics to practice. Action in challenging time.** 13-14 may 2023. Egypt
- Attendance the 4th scientific meeting of Alexandria physiology department in title **advances in reproductive physiology and new technologies. 15** March 2023. Egypt
- **EAEDA ENDO Summit 2022.** 27th annual scientific summit of the Egyptian Association of Endocrinology, Diabetes and Atherosclerosis. 14-16 September 2022. Egypt
- Attendance the 7th international conference of Chemical pathology department, Medical research institute, Alexandria University, ChemPath 2022 (Laboratory medicine: the real gate to patient centered care)**. 27** March 2022. Egypt
- "**50 Years of Molecular Life Sciences with FEBS Letters**". 24-25 May 2018 I Heidelberg, **Germany**.
- **Proteostatic Mechanisms in Health and Disease**. The Final COST Action BM1307 Meeting. (ORGANIZED BY PROTEOSTASIS). 22-24 February 2018, Divani Palace Acropolis, Athens, **Greece**.
- **UMM-KIT** workshop on Friday 17th February 2017. Alte Brauerei, Mannheim, **Germany**.
- Certificate of attendance the scientific meeting of scientific committee on "**Gene Polymorphism**" 16/2/2012.
- Certificate of attendance the scientific meeting of scientific committee on "**Alzheimer**" 5/4/2012. Egypt
- Certificate of attendance the conference of Eyptian Association of Diabetes, **Diabetes from theory to therapy**. March 2011. Egypt
- Certificate of attendance the 13th conference of medical research institute on **molecular medicine.** 2009**.** Egypt

E-LEARNING:

- **Introduction to Biology - The Secret of Life**, Massachusetts Institute of Technology **MIT**, USA. This course includes basics of biochemistry, genetics, molecular biology, recombinant DNA, and

genomics. Hosted by Professor Eric Lander, who was one of the leaders of the Human Genome Project. Sep, 2014

- **Molecular Biology - Part 1: DNA Replication and Repair**, Massachusetts Institute of Technology **MIT**, USA. This course includes an in-depth adventure through DNA replication and repair to strengthen your scientific thinking and experimental design skills. Oct, 2015
- **Molecular Biology - part 2: Transcription and Transposition**, Massachusetts Institute of Technology **MIT**, USA. This course includes an in-depth adventure through transcription and transposition to strengthen your scientific thinking and experimental design skills. Dec, 2015
- **Molecular Biology- part 3: RNA Processing and Translation,** Massachusetts Institute of Technology **MIT**, USA. This course includes an in-depth adventure through RNA Processing and Translation. Mar, 2017
- **Principles of Biochemistry**, **Harvard University**. This course includes introduction to biochemistry and explores the molecules of life, starting at simple building blocks and culminating in complex metabolism. Dec, 2015
- **MEDICINAL CHEMISTRY** course, **Davidson College**, USA. This course explores how to bring a drug from concept to market, and how a drug's chemical structure relates to its biological function. Dec, 2014
- **Essential Human Biology: Cells and Tissues**, **University of Adelaide**, Australia. This course includes an introduction to the human body's most fundamental building blocks and their behaviors in health and disease. Mar, 2015
- **Proteins: Biology' workforce**, **Rice University**. This course explores how the protein you eat keeps you alive and healthy by powering key functions from metabolism to DNA replication. Mar, 2015

REFERENCES:

- **Dr. Christine Blattner,**
  Karlsruhe Institute of Technology (KIT),
  Institute of Toxicology and Genetics (ITG),
  Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen, Germany.
  tel.: +49 721 608 22634 (office) or -22714 (lab)
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  email: christine.blattner@kit.edu

- **Prof. Andrew C. Cato,**
  Karlsruhe Institute of Technology (KIT),
  Institute of Toxicology and Genetics (ITG),
  Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen, Germany.
  tel.: +49 721 608 22146 (office)
  fax: +49 721 608 23354
  email: andrew.cato@kit.edu

- **Dr. Gary Davidson,**
  Karlsruhe Institute of Technology (KIT),
  Institute of Toxicology and Genetics (ITG),
  Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen, Germany.
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