



Born in 1988, Egypt.

CONTACT

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CURRENT LOCATIONS

- Egypt, Cairo - Home Country

CURRENT ROLE

- Lecturer of Zoology.
Ain Shams University, Cairo, Egypt

LANGUAGES

English

Arabic

SALLY EL-ASHRY

AREAS OF EXPERTISE

Cytogenetics

- Chromosomal aberration analysis
- Sister chromatid exchange analysis
- Banding techniques
- Karyotyping
- FISH technique
- Micronucleus test

Molecular Biology

- PCR
- Primer Design
- Agarose gel electrophoresis
- Next Generation Sequencing
- NCBI and BLAST tools
- Comet assay

Cell Culture and Gene Editing

- Tumor cell culture
- Clonogenic and MTT assays
- CRISPR/Cas9 gene editing
- Cas9-sgRNA RNPs via electroporation

Microscopy and Imaging

- Light and Fluorescence microscopy
- DNA damage and repair foci imaging

Education and Research

- Over 14 years experience in teaching practical and theoretical Courses in Cytogenetics, Molecular Biology, Animal Genetics, General Biology, Bio-diversity, Cytology, Histology, Physiology, Marine Biology, Ecology, Toad anatomy, Radiobiology, Comparative Anatomy, and Embryology at Division of Zoology, Department of Biological Sciences, Ain Shams University.
- Peer Reviewing Research team collaboration
- Scientific knowledge advancement

Supervision and Mentoring

- Supervision of Master's and PhD students
- Mentoring of early-career researchers and undergrads
- Guidance on research projects and thesis development

WORK EXPERIENCE

- **Lecturer of Zoology (Cytogenetics and Molecular Biology)**
Ain Shams University | March 2022 till Present
At Department of Biological Sciences, Faculty of Education, Ain Shams University
- **Peer Reviewer**
At Indian Journal Of Experimental Biology | April 2023 till Present
- **Postdoctoral Fellow**
University of Chicago | February 2023 till July 2023
At the Kron Lab, Division of Biological Sciences, Department of Molecular Genetics and Cell Biology,
- **Assistant Lecturer**
Ain Shams University | November 2015 till March 2023
At Department of Biological Sciences, Faculty of Education, Ain Shams University
- **Demonstrator**
Ain Shams University | May 2010 till November 2015
At Department of Biological Sciences, Faculty of Education, Ain Shams University

COURSES & WORKSHOPS

- **June 6th till June 14th, 2009:** Took part in Bioinformatics workshop held by Faculty of Education, Ain Shams University.
- **July 3rd till July 5th, 2010:** Attended Quality Standards in the Educational Process course in FLDC (Ain Shams University).
- **July 10th till July 12th, 2010:** Attended Credit Hours System course in FLDC (Ain Shams University).
- **June 6th till July 7th, 2013:** Attended and participated in the activities of the second workshop on the alternatives to the use of animals in experiments and education held by the Egyptian Society of Animal Friends and Division of Zoology, Department of Biological Sciences, Faculty of Education, Ain Shams University.
- **August 20th till August 22nd, 2013:** Attended Ethics of Scientific Research course in FLDC (Ain Shams University).
- **August 31st till September 2nd, 2013:** Attended Local and International Competitive Research Projects course in FLDC (Ain Shams University).
- **September 3rd till September 5th, 2013:** Attended Use of Technology in Teaching course in FLDC (Ain Shams University).

- **March 29th till March 30th, 2015:** Attended University Code of Ethics course in FLDC (Ain Shams University).
- **August 19th till August 20th, 2019:** Attended Presentation Skills course in TD center.
- **July 7th till July 8th, 2020:** Attended Biostatistics course in TD center.
- **February 4th till February 5th, 2021:** Attended Communication Skills course in TD center.
- **February 11th till February 12th, 2021:** Attended Scholarly Publishing in Indexed Journals course in TD center.
- **February 23rd till February 24th, 2021:** Attended Scientific Writing course in TD center
- **March 2023:** Successfully passed the laboratory biosafety courses including Chemical Hygiene Plan, Laboratory Safety 101, Fire Safety and Evacuation, Biological Safety-Recombinant DNA at BSL1, Bloodborne Pathogens for Biomedical Researchers, Working with Rodents in the Animal Resource Center (ARC), Occupational Health and Safety Information Module for Animal Users, and Aseptic Technique for Rodent Survival Surgery in Division of Biological Sciences, Department of Molecular Genetics and Cell Biology, University of Chicago.
- **April 2023:** Actively participated in in-person training sessions covering Mouse Handling and Oral Gavage, Routes of Drug Administration, Rodent Euthanasia, Isoflurane Gas Anesthesia for Rodents, Tumor Cell Injection, Measurement and Excision, and Image Guided Radiation Therapy in Division of Biological Sciences, Department of Molecular Genetics and Cell Biology, University of Chicago.
- **June 2024:** Actively participated in Training Course on Bioinformatics studying important databases (Galaxy DDBJ Expasy Swiss-Port knowledgebase EMBL), types of sequence alignment, evolution and different molecular phylogeny assessment at AGERI Training Unit, Agricultural Research Center (ARC), Egypt.

EDUCATION & RESEARCH WORK

- **2022 – P.H.D Degree**, of Science Teacher Preparation (Cytogenetics and Molecular Biology-Zoology), Faculty of Education, Ain Shams University in Egypt.
- **Research Work:** THE POSSIBLE PROTECTIVE ROLE OF PLANT POLYPHENOLS AGAINST THE GENOTOXICITY OF ACROLEIN ON BONE MARROW CHROMOSOMES AND DNA IN MALE ALBINO MICE.
- **2015 - Master Degree**, of Science Teacher Preparation (Cytogenetics and Molecular Biology-Zoology), Faculty of Education, Ain Shams University in Egypt (Excellent degree).
- **Research Work:** EFFECT OF METHOTREXATE ON BONE MARROW CHROMOSOMES AND DNA OF MALE ALBINO MICE *Mus musculus*.
- **2011 - Special Diploma**, in Science Teacher Preparation (Zoology), Faculty of Education, Ain Shams University in Egypt with excellent degree.
- **2010 - General Diploma**, in Science Teacher Preparation (Zoology), Faculty of Education, Ain Shams University in Egypt with excellent degree.
- **2006 till 2009- Bachelor of Science and Education**, Department of Biology and Geology, Faculty of Education, Ain Shams University in Egypt.
- **Secondary School:** Modern Language School, Cairo, Egypt, graduated with score of 91.3%.

PUBLICATIONS

1-Genotoxic Effect of Methotrexate on Bone Marrow Chromosomes and DNA of Male Albino Mice (Mus musculus). (Research Paper) Journal Name: The Egyptian Journal of Hospital Medicine Volume 64, Issue 1, July 2016, Page 350-363. DOI: 10.12816/0029027

Nagla Zaky Ibrahim El -Alfy; Mahmoud Fathy Mahmoud; Sally Ramadan Gabr El-Ashry; Amany Ibrahim Alqosaibi

2-An Analysis of Micronuclei and DNA Damage Induced by Methotrexate Treatment of Male Albino Mice. (Research Paper) Journal Name: The Egyptian Journal of Hospital Medicine Volume 65, Issue 1, October 2016, Page 504-514. DOI: 10.12816/0033759 Nagla Zaky Ibrahim El-Alfy; Amany Ibrahim Alqosaibi; Mahmoud Fathy Mahmoud; Sally Ramadan Gabr El Ashry

3-Ameliorative Role of Quercetin and/or Resveratrol on Acrolein-Induced Clastogenesis in Bone Marrow Cells of Male Albino Mice Mus musculus. (Research Paper) Journal title: World Journal of Pharmacy and Pharmaceutical Sciences Volume 10, Issue 5, April 2021, Page 92-114. DOI: 10.20959/wjpps20216-18910 Nagla Zaky Ibrahim El-Alfy; Mahmoud Fathy Mahmoud and Sally Ramadan Gabr El-Ashry

4- The Possible Protective Effects of Quercetin and/ or Resveratrol against Acrolein–Induced Sister Chromatid Exchanges and DNA Damage in Male Albino Mice. (preprint) This work is licensed under a Creative Commons Attribution 4.0 International License. DOI: <https://doi.org/10.21203/rs.3.rs-2222656/v1>, November 2022 Nagla Zaky Ibrahim El-Alfy; Mahmoud Fathy Mahmoud and Sally Ramadan Gabr El-Ashry

5- Evaluation of The Histological Effects of Aspartame on Testicular Tissue of Albino Mice. (Research Paper) Journal title: The Egyptian Journal of Hospital Medicine Volume 93, October 2023, pages 7349- 7355. DOI:10.21608/ejhm.2023.324578 Nagla Zaky Ibrahim El -Alfy, Mahmoud Fathy Mahmoud Mohamed Said Ebied Said and Sally Ramadan Gabr El-Ashry

6- Assessment of the cytotoxic and genotoxic potential of silver nanoparticles in male albino mice. (Manuscript submitted for publication) Journal title: NanoImpact Sally Ramadan Gabr El-Ashry, Nagla Zaky Ibrahim El -Alfy, Eman Saad Lotfy Abd Elhady

7- Potential protection by vitamin D against DNA fragmentation and bone marrow cytotoxicity induced by chloramphenicol drug. (Manuscript submitted for publication) Journal title: Toxicology Sally Ramadan Gabr El-Ashry, Nagla Zaky Ibrahim El -Alfy, Omnia Nabeel Mohamed Morgan

8- In Vivo Cytogenetic Study: Effect of Aspartame on Bone Marrow Cells (Manuscript submitted for publication) Journal title: Life Sciences, Sally Ramadan Gabr El-Ashry, Nagla Zaky Ibrahim El -Alfy and Mohamed Said Ebied Said

9- Assessment of The Genotoxic Effects of Aspartame in testicular germ cells of male Albino mice (Manuscript submitted for publication) Journal title: Toxicology Reports, Sally Ramadan Gabr El-Ashry, Nagla Zaky Ibrahim El -Alfy and Mohamed Said Ebied Said

AREA OF INTERESTS

- Cytogenetics and Molecular Biology.
- Applying chromosomal aberration assay, chromosomal banding techniques, sister chromatid exchange analysis, comet assay, micronucleus assay, randomly amplified polymorphic DNA-polymerase chain reaction (RAPD-PCR) and quantitative real time- polymerase chain reaction (qRT-PCR) analysis to assess genomic instability, chromosomal aberrations, and DNA damage in tumor cell line and mouse bone marrow cells.
- Tumor cell culture and relevant laboratory techniques such as recovering cell lines from liquid nitrogen storage, precise cell counting using both hemocytometer and automated cell counter, aseptic cell plating, preparation of culture medium, proper aliquoting, freezing, splitting, subculturing, and passaging of adherent cell lines, performing daily culture medium changes, and conducting clonogenic assays and MTT assays to evaluate cell viability.
- Fluorescent microscopy and immunofluorescence imaging of DNA damage and repair foci.
- Gene editing by CRISPR/Cas9 as a tool for molecular genetics by using electroporation of Cas9-sgRNA RNPs to disrupt target genes in tumor cell lines and alter their responses to DNA damage.

COMPUTER & SOFTWARE SKILLS

- Microsoft Office: (Outlook, Teams, One Drive, SharePoint, Word, Excel and PowerPoint)
- Adobe: (Photoshop and Lightroom)
- Google Workspace (Gmail, Google Meet, Google Docs and Google Drive)
- Skilled in Biorender for creating scientific diagrams, illustrations, and figures.
- Graphic Design and Visual Content Creation: Canva.
- Moodle: (Course and Quiz Creation, Management and Delivery)

REFERENCES

- **Professor Nagla Z. El-Alfy**

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University
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- **Professor Stephen J. Kron**

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Genetics and Cell Biology at The University
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Stephen J. Kron, MD-PhD

June 20, 2023

RE: Letter of completion for Sally Ramadan Gabr Eid El-Ashry training program through the US-Egypt Higher Education Initiative under my supervision in the Department of Molecular Genetics and Cell Biology at the University of Chicago.

To Whom it May Concern,

During the training period, Sally El-Ashry successfully achieved the objectives outlined in the research and training plan. She demonstrated exceptional dedication and completed all the required laboratory biosafety courses with excellent results. These courses included the Chemical Hygiene Plan, Laboratory Safety 101, Fire Safety and Evacuation, Biological Safety-Recombinant DNA at BSL1, Bloodborne Pathogens for Biomedical Researchers, Working with Rodents in the Animal Resource Center (ARC), Occupational Health and Safety Information Module for Animal Users, and Aseptic Technique for Rodent Survival Surgery. Additionally, Sally actively participated in in-person training sessions covering Mouse Handling and Oral Gavage, Routes of Drug Administration, Rodent Euthanasia, Isoflurane Gas Anesthesia for Rodents, Tumor Cell Injection, Measurement and Excision, and Image Guided Radiation Therapy. She also attended our weekly lab research meetings where we focus on highlighting and brainstorming potential solutions and studies to address important issues in cancer immunotherapy, radiotherapy, DNA damage response, metabolism, and cellular senescence and protection of bone marrow from the adverse effects of radiotherapy.

Further, Sally acquired practical experience in tumor cell culture and relevant laboratory techniques. She demonstrated proficiency in tasks such as recovering cell lines from liquid nitrogen storage, precise cell counting using both hemocytometer and automated cell counter, aseptic cell plating, preparation of culture medium, proper aliquoting, freezing, splitting, subculturing, and passaging of adherent cell lines, performing daily culture medium changes, and conducting clonogenic assays and MTT assays to evaluate cell viability.

Sally received comprehensive training in both fluorescent microscopy and immunofluorescence imaging techniques. Her training encompassed sample preparation, precise sample mounting, focusing techniques, and acquiring high-quality fluorescent images. She demonstrated attention to detail, utilized advanced techniques to optimize image quality, and proficiently documented her findings using specialized imaging software. She worked with a variety of fluorescent dyes and labels, enhancing her

understanding of their properties and applications. With respect to her specific research topic, she underwent hands-on training in immunofluorescence imaging of DNA damage and repair foci, enabling her to visualize and analyze DNA damage and repair processes using specific antibodies and markers. She successfully applied comet assay and micronucleus assay to assess genomic instability, chromosomal aberrations, and DNA damage in tumor cell line and mouse bone marrow cells. Furthermore, she gained theoretical knowledge and practical skills in gene editing by CRISPR/Cas9 as a tool for molecular genetics by using electroporation of Cas9-sgRNA RNPs to disrupt target genes in tumor cell lines and alter their responses to DNA damage.

Moreover, Sally had the valuable opportunity to collaborate with experienced researchers in my research group and engage in scientific discussions to broaden her perspective. An important element of her experience was to observe how a laboratory working in a highly competitive area is able to identify important research problems and then pursue them effectively.

Sally consistently demonstrated a strong commitment to excellence and a genuine passion for her work. Although her stay was just four months, Sally was able to immerse herself in the environment and gain new skills and understanding over this short visit that should help her advance rapidly in her academic career. Her experiences have added to Sally's intellectual independence, skills in transmitting and discussing scientific ideas, strategic judgement in choosing research topics and abilities in critical analysis of research findings. I believe that she has also gained skills that will help with her teaching and mentoring, having had the opportunity to observe how our students are trained in the laboratory.

It has been a pleasure hosting Sally El-Ashry in my laboratory. My lab and I will miss her. I wish to thank the USAID and the Egyptian Cultural and Educational Bureau for supporting Sally's advanced training. I look forward to our continuing a productive interaction once Sally returns to her position at Ain Shams University in Cairo.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen J. Kron", with a long, sweeping horizontal line extending to the right.

Stephen J. Kron, MD-PhD

Professor, Department of Molecular Genetics and Cell Biology