Curriculum vitae

Yasser S. Helmy

Biochemistry, Molecular Biology

Academic Positions

2020 – present	Biochemistry department, Agriculture Faculty, Cairo University. **Lecturer**
2013 – 2019	Leibniz Institute for Aging research (FLI) Jena, Germany. **Staff Scientist, PhD student at Friedrich-Schiller-Universität Jena**
2003 – 2012	Biochemistry department, Agriculture Faculty, Cairo University. **Teaching assistant, Master Student**

Publications

2022	Ahmed, F. S., **Helmy, Y. S.**, & Helmy, W. S. (2022). Toxicity and biochemical impact of methoxyfenozide/spinetoram mixture on susceptible and methoxyfenozide-selected strains of Spodoptera littoralis (Lepidoptera: Noctuidae). Scientific Reports, 12 (1), 1-10.
2008	Shallan, M. A., El-Baz G. D., Ali H. F. M., and **Helmy Y. S.** (2008) "Antitoxicant effects against CCl_4- induced liver damage of ripe fruits ethanolic extract of black nightshades.", J. Biol. Chem. Environ. Sci., vol. 3, no. 4, pp. 181–205.

Education

2019	Friedrich-Schiller-Universität Jena, Biowissenschaften Fakultät, Deutschland **PhD of Life Sciences (Biochemistry)** Study of the prospective impact of DHX9 on DNA replication and the possible underlying mechanisms.
2008	Cairo Universität, Agriculture Faculty, Cairo University, Egypt. **MSc of Agricultures Sciences (Biochemistry)** Biochemical Studies on *Solanum nigrum* L. Fruits Extracts
2002	Cairo Universität, Agriculture Faculty, Cairo University, Egypt. **Bachelor of Agricultures Sciences (Major Biotechnology)**

Research Experiences

During my doctoral study in Jena, doxycycline inducible shRNA vectors and Locked Nucleic Acid (LNATM) antisense transient transfection were used to downregulate DHX9 in human cultured cells and the efficient of protein depletion was confirmed in western blot. DNA combing technique was used to analyze the DNA replication dynamics on a molecular level. Immunocytochemistry and high-content microscope were used to analyze the effect on the cellular level. Segment of DHX9 helicase was cloned in plasmid, expressed in bacteria, purified, and tested using EMSA assay with DNA synthetic structures. Luciferase reporter assays was used to study the effect on translation of specific genes. We showed that even short-term DHX9 depletion of less than two days already affect DNA replication.

During my Master study in Egypt, ripe fruits crude ethanolic extract of *Solanum nigrum* L. (Black nightshades) was examined as antioxidant using different independent methods and was examined *in vivo* in laboratory rats as treatment against CCl_4 toxicity as liver damage parameters.

References

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