

Saber Hassan Saber

713, City St, Assiut 71516, Egypt
Mobile: (+2) 0109 977 6800, (+2)01000234216
Email: Saberhassan@aun.edu.eg



ResearchGate: https://www.researchgate.net/profile/Saber_Hassan3/publications

Google scholar: https://scholar.google.com/citations?view_op=list_works&hl=id&user=f-Tf9_QAAAAJ

Home Page: http://www.aun.edu.eg/membercv.php?M_ID=5199

Education

Master degree in molecular cell biology

January 2017

Zoology Department, Assiut University, Egypt

Title of thesis: Study the effect of melatonin on metastasis- regulating mechanisms on breast cancer cells.

Courses: Cell biology, Molecular biology, Immunology, Histology, Biostatistics and data analysis, practical course.

Bachelor of Science in Zoology

July 2012

Faculty of Science, Assiut University, Egypt, GPA: (90.37%) Excellent with honours.

Work experience

Research Assistant

Sep 2017- Present

Hematology and Immunology department, Kanazawa Medical University, Japan
Research Assistant.

Research Assistant

1 Nov 2015 –1 Aug 2017

Center for Aging and Associated Diseases, Helmy Institute for Medical Science, Zewail City of Science and Technology, Giza, Egypt.

Assistant lecturer and research assistant

1 Dec 2013 – Present

Molecular Cell Biology lab, Zoology Dep., Faculty of Science, Assiut University, Assiut, Egypt.
Taught many practical Courses (undergraduate level): cell biology, Cancer Biology, Molecular Biology, Animal Physiology, Histology, Anatomy, Biochemistry, Entomology and Animal taxonomy.

Research experience (projects)

- Study of the effect of melatonin on metastasis- regulating mechanisms on breast cancer (under reviewing) my master project.
- Study the effect of paclitaxel on breast cancer metastasis via DJ-1/KIF17/ID1 signalling pathway (Accepted data) from my master project.
- Inhibition of metastasis by MS123 through inhibition CXCL12/ CXCR4 axis by increasing ceramide in ED_40515 (-) cells both *in-vitro* and *in-vivo*. (ongoing work).

- Overcome of drug-resistance in acute myeloid leukaemia by autophagy-associated suppression of tumor exosomes containing miRNA484 through regulation of SMS (manuscript is under revision).
- Research for the mechanisms by which the regulation of sphingolipids inhibit mice leukemia model (manuscript is under revision).
- Heterogeneity of Biophysical and Metabolic signatures in human malignancy.
- Circadian of NOX enzymes activity and expression in brain and heart of black mice.
- Early sex-specific differences in mitochondria biogenesis, morphology, respiratory function, and ROS homeostasis in mouse heart and brain (Published data).
- Synaptic membrane alterations and ROS production in Aluminum-induced Alzheimer's disease rat model as probed by ATR-IR and EPR techniques (under reviewing).
- Novel Nano-Formulations of Thymoquinone, Curcumin, Rutin, 3,3'-Diindolylmethane, Pomegranate and Ellagic Acid for Treatment of Breast and Liver Cancers.

Practical experience

- High-resolution Oximetry (O2K), coupled with Hydrogen peroxide fluorescence measurement and Calcium ion-selective potentiometric measurement.
- XF24 Flux analyzer (seahorse), measuring oxygen and proton flux.
- Electron Paramagnetic Resonance spectroscopy (EPR) (measuring membrane fluidity using Spin trapping, Spin labelling).
- Cell culture for attached and suspended cells and generate genetically modified cells.
- Molecular techniques:
MTT and SRB assays, qPCR, Western blotting, immunohistochemistry, Gene cloning, gene editing using CRISPR technology (Cas9).
- Cell cycle analysis and cell death using flow cytometry.
- Thin Layer Chromatography (TLC), High-performance liquid chromatography (HPLC) and Mass Spectrometry.
- Exosome and extracellular vesicles isolation and counting using Nano sight.
- Animal handling Wild-type Mice as (C57/B6, Albino Mice, Wistar rats and Blab c mice) and Genetically modified mice model as (Leukemia Mice model and SMS1 and SMS2 double Knockout Mice model).
- Paraffin sectioning, Immunohistochemistry and confocal imaging.
- Electron microscopy (Transmission, scanning).
- Cell invasion, Wound healing assays, Colony formation assay
- Drug loading on nanoparticles (gold nanoparticles).

Training and workshops

Animal handling workshop
Kanazawa Medical University, Japan

October 2017

Experiments with recombinant DNA
Kanazawa Medical University, Japan

October 2017

Trilateral Mitochondria and high-resolution imaging workshop
Stellenbosch University, Stellenbosch, South Africa

January 2017

Materials Science and Nanotechnology Practical Preparation workshop June 2014

Assiut University, Egypt

Molecular techniques workshop

Nov 2011

Molecular Biology unit, Assiut University (Egypt),

Transmission and Scanning electron microscopy workshop

Aug 2011

Electron Microscopy Unit, Assiut University, Egypt

Publications

- Harakeh, S., Almuhayawi, M., Al Jaouni, S., Almasaudi, S., **Hassan, S.**, Al Amri, T., Azhar, N., Abd-Allah, E., Ali, S., El-Shitany, N. and Mousa, S., 2020. Antidiabetic Effects of Novel Ellagic Acid Nanoformulation: Insulin-Secreting and Anti-apoptosis Effects. Saudi Journal of Biological Sciences.
- Zaki, R.M., Abdul-Malik, M.A., **Saber, S.H.**, Radwan, S.M. and El-Dean, A.M.K., 2020. A convenient synthesis, reactions and biological evaluation of novel pyrazolo [3, 4-b] selenolo [3, 2-e] pyrazine heterocycles as potential anticancer and antimicrobial agents. Medicinal Chemistry Research, 29(12), pp.2130-2145.
- Ahmed, G.A.R., Khalil, S.K., El Hotaby, W., Abbas, L., Farrag, A.R.H., Aal, W.E.A., Sherif, H.H., Abdel-Rahman, E.A., **Saber, S.H.**, Hassan, M. and Hassan, M.H., 2020. ATR-IR and EPR spectroscopy for following the membrane restoration of isolated cortical synaptosomes in aluminium-induced Alzheimer's disease-Like rat model. Chemistry and Physics of Lipids, 231, p.104931.
- Sayed, I.M., Seddik, M.I., Gaber, M.A., **Saber, S.H.**, Mandour, S.A. and El-Mokhtar, M.A., 2020. Replication of Hepatitis E Virus (HEV) in Primary Human-Derived Monocytes and Macrophages In Vitro. Vaccines, 8(2), p.239.
- **Saber, S.H.**, Ali, H.E., Gaballa, R., Gaballah, M., Ali, H.I., Zerfaoui, M. and Abd Elmageed, Z.Y., 2020. Exosomes are the Driving Force in Preparing the Soil for the Metastatic Seeds: Lessons from the Prostate Cancer. Cells, 9(3), p.564.
- Joensuu, M., Wallis, T.P., **Saber, S.H.** and Meunier, F.A., 2020. Phospholipases in neuronal function: A role in learning and memory? Journal of neurochemistry, 153(3), pp.300-333.
- El-Sokkary, G.H., Ismail, I.A. and **Saber, S.H.**, 2019. Melatonin inhibits breast cancer cell invasion through modulating DJ-1/KLF17/ID-1 signaling pathway. Journal of Cellular Biochemistry, 120(3), pp.3945-3957.
- Ismail, I.A., El-Sokkary, G.H. and **Saber, S.H.**, 2018. Low doses of Paclitaxel repress breast cancer invasion through DJ-1/KLF 17 signalling pathway. Clinical and Experimental Pharmacology and Physiology, 45(9), pp.961-968.

- Ahmed, G.A.R., Khalil, S.K., y, ElhotabW.M., Abass, L., Sherif, H.H., Farrag, A.H. Aal, W.E.A., **Saber, S.H.**, 2018. Neurology and Therapeutics. Neurology, 2018.
- Khalifa, A.R.M., Abdel-Rahman, E.A., Mahmoud, A.M., Ali, M.H., Noureldin, M., **Saber, S.H.**, Mohsen, M. and Ali, S.S., 2017. Sex-specific differences in mitochondria biogenesis, morphology, respiratory function, and ROS homeostasis in young mouse heart and brain. Physiological reports, 5(6), p.e13125.
- Saddik, A.A., Kamal El-Dean, A.M., El-Sokary, G.H., Hassan, K.M., Abbady, M.S., Ismail, I.A. and **Saber, S.H.**, 2017. Synthesis and Cytotoxicity of Some Thieno [2, 3-d] pyrimidine Derivatives. Journal of the Chinese Chemical Society, 64(1), pp.87-93.
- El-Sokkary, G.H., Ismail, I.A. and **Saber, S.H.**, 2016. Bright face of melatonin against breast cancer progression and metastasis. Eur J Biomed Pharm Sci, 3, pp.105-113.
- **10** other publications under submission and reviewing in a different journal.

Conferences

- 1- Japanese biochemistry society 2018 Poster presentation (Role of exosomes production and their cargo miR484 through the regulation of sphingomyelin synthase in anti-cancer drug resistance of human leukemia cells) Saber H. Saber, Shingo NAGAYA, Gao Rongfen, Chieko HASHIZUME, Makoto TANIGUCHI, Kohei YUYAMA, Yasuyuki IGARASHI, Hideo OGISO, Toshiro Okazaki.
- 2- Stellenbosch University, Stellenbosch, South Africa Poster presentation 2017 (Low doses of Paclitaxel repress breast cancer invasion through DJ-1/KLF 17 signalling pathway. Saber, S.H.,Ismail, I.A., El-Sokkary, G.H., Abdel-Rahman, E.A., and Ali, S.S.

Language

Arabic: Mother tongue

English: Excellent

References

- **Sameh S. Ali**
Professor of Biophysics, Head of Tumor Biology Program at 57357 Children's Cancer Hospital.
Sameh.Ali@57357.org
- **Zakaria Abd Elmageed**
Professor of Pharmacology Ed Via College of Osteopathic Medicine (VCOM) University of Louisiana at Monroe, LA, USA.
zelmageed@ulm.vocm.edu
- **Gamal El-Sokkary**
Professor of Cell Biology, Assiut University, Egypt.
gelsokkary@yahoo.com gamal.elsoukari@science.au.edu.eg
- **Ismail A. Ismail**
Professor of Molecular Cell Biology, Assiut University, Egypt
ismail75eg@yahoo.com ismailahmed@aun.edu.eg