# Dr. Salwa Mahmoud El-Sayed

Agric. Biochem Dept., Faculty of Agric. Ain shams University


## Personal Data

**Name:** Salwa Mahmoud El-Sayed Sedeek
**Gender:** Female
**Date of Birth:** 26/12/1983
**Nationality:** Egyptian

## Contact Information


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**Scopus site:** https://www.scopus.com/authid/detail.uri?authorId=57240476400


## Academic Information and Occupational field

**Occupation or position held:** Associate prof. of Biochemistry
**Main activities and responsibilities:** Teaching and research activity
**Name and address of employer:** Faculty of agriculture, Ain-shams university, Cairo, Egypt
**Type of business or sector:** Education and research
**Career:**

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|---|---|
| **2023- until now** | Associate prof. of Biochemistry, Faculty of Agriculture, Ain Shams University. |
| **2018- 2023** | Lecturer at the Department of Agricultural Biochemistry, Faculty of Agriculture, Ain Shams University. |
| **2012-2018** | Assistant lecturer at the Department of Agricultural Biochemistry, Faculty of Agriculture, Ain Shams University |
| **2007- 2012** | Demonstrator at the Department of Agricultural Biochemistry, Faculty of Agriculture, Ain Shams University |

**Professional Membership:** Member of Agricultural Chemistry & Environment Protection Society

## SCIENTIFIC ACTIVITIES

### 1- Teaching Courses

1. General chemistry
2. Fat and oils Chemistry,
3. Chemistry of carbohydrates
4. Chemistry of biological regulators.
5. Inorganic Chemistry
6. Analytical Chemistry (Qualitative and Quantitative)
7. Organic Chemistry
8. Biochemistry

9. Chemistry of environmental stress
10. Laboratory methods in biochemistry
11. Industrial chemistry
12. Biochemistry **(Faculty of Veterinary Medicine)**

## 2- Workshops:

(22 to 23 October 2016) Participation in organizing and teaching a training course entitled as (Application of enzymes analysis: Plant disease markers).

## 3- Awards:

Ain shams university incentive award

## Language Skills

**Arabic:** Native speaker
**English:** Very good spoken and written

## Education and training

1. B.Sc. of Agriculture in Agricultural Biochemistry Branch, Faculty of Agriculture, Ain Shams Univ., Cairo, Egypt, with grade "excellent with honors ."
2. (2012) Master of Science certificate, in “chemical and nutritional evaluation of cottonseed oil mixed with jojoba or castor oil”, Ain Shams University, Egypt.
3. 2018) Doctor of philosophy certificate, in “HYPOGLYCEMIC AND HYPOLIPIDEMIC ACTIVITY OF BIOMASS AND AQUEOUS EXTRACT OF BLUE GREEN ALGA SPIRULINA IN DIABETIC RATS”, Ain Shams University, Egypt.
4. Course in local English Tofel in, Ain Shams Univ., Egypt with score "606"
5. Training course in Effective Presentation Skills, TD Center, Ain Shams University
6. Training course in effective communication skills, TD Center, Ain Shams University
7. Training course in the use of technology in teaching, TD Center, Ain Shams University
8. Training course in Detergents and cosmetics, Biochemistry Department, Faculty of Agriculture, Ain Shams University.
9. (August 26th, 2021) How Gut Microbiota Influence Food Intolerance and Liver Cancer Risk, the Compulsory Egyptian Medical Training Authority (CEMTA), International Gastroenterology Educational Series.
10. (31 August 2022) JoVE Workshop, Accelerate Your Science Research and Education Through JoVE
11. (28- 29/6/2022) Training course in E-Learning using ASU2Learn (Basic level) , TD Center, Ain Shams University
12. (3/7/2022 to 1/8/2022) Training course in "Employing important Apps of Microsoft Office 365 in eLearning".

## Conferences:

1- (6-8 April 2021) The 9th Annual Ain Shams University International Conference.

2- 2- (3-5 September 2022) the impact of climate changes on food production on the dry areas.

## Principal subjects/occupational skills covered

**Good skills in routine biochemical assays on serum, plasma and erythrocytes such as:**

1. Protein, albumin
2. lipid profile
3. glucose
4. Kidney function
5. Liver function (AST and ALT)
6. Stress markers in blood (MDA and antioxidant enzymes)
7. Insulin by ELISA

**Good skills in detection of disease by:**
histopathological studies (liver, kidneys, colon, and pancreas).

**Estimation of the following parameters:**

1. Enzymatic antioxidants such as glutathione peroxidase, superoxide, Dismutase and catalase.
2. Lipid peroxidation as MDA and hydrogen peroxide.
3. Stress markers such as proline, phenols, flavonoids and protein
4. Docking by auto-duck4.
5. Extractions of essential oils by steam distillation.
6. Determination of terpenoids of essential oils by GC-MS.
7. Determination of alkaloids by HPLC.
8. Determination of plants hormons by HPLC
9. Determination of Microbial enzymes activities.
10. Determination of Acetylcholinesterase (AChE) and glutathione-S- transferase enzymes activities Tetranychus urticae
11. Determination of Antioxidant activity by DPPH
12. Determination of Stability of vegetables oil by Rancimate
13. Extractions and purification of phycocyanin from Spirulina platensis by dialysis bag and gel filtration.
14. Extractions, purification, and determination of proteases activity.
15. Preparation of silicon dioxide nanoparticles
16. Characterization of silicon dioxide nanoparticles by Zetasizer and Scanning Electron Microscope
17. Determination of elements in soil and plants by ICP.

## Published work:

1. Salwa M. Sedeek, Refat E. El-Ghobashy and Magdy F. Tawfik (2012**). THERMAL STABILITY OF COTTONSEED OIL MIXED WITH JOJOBA OR CASTOR OIL DURING FRYING PROCESS**. J. Biol. Chem. Environ. Sci., 2012, Vol. 7(2):39-56.
2. El-Sayed M. El-Sayed, M. S. Hikal, B. E. Abo El- Khair, R. E. El-Ghobashy, A. M. El-Assar (2018). **HYPOGLYCEMIC AND HYPOLIPIDEMIC EFFECTS OF SPIRULINA PLATENSIS, PHYCOCYANIN, PHYCOCYANOPEPTIDE AND PHYCOCYANOBILIN ON MALE DIABETIC RATS**. Arab Univ. J. Agric. Sci., 22, 26, (2A), 1121-1134. DOI: 10.21608/ajs.2018.28365.
3. Gamal A. Gabr, Salwa M. El-Sayed and Abd El-Hameed H. M. (2018). **Extraction and Purification of Poly-Digestive Enzymes from Sprouted Wheat and Bacillus Cereus as Alternative Therapy for Celiac Patients.** IAJPS 2018, 05 (09), 8895-8904. http://doi.org/10.5281/zenodo.1421941.

4. Gamal A. Gabr, Salwa M. El-Sayed and Mohamed S. Hikal (2020). **Antioxidant Activities of Phycocyanin: A Bioactive Compound from Spirulina platensis.** Journal of Pharmaceutical Research International. DOI: 10.9734/JPRI/2020/v32i230407.
5. Gamal A. Gabr, Salwa M. El-Sayed and Hossam M. Abd El-Hameed (2020**). Novel Prolyl-endopeptidase from Rhynchophorus ferrugineus of Gluten degrading: Potential Use to Reduce Gluten Immunogenic Peptides in Celiac Disease.** Int. J. Pharmacol., 16 (4): 282-290. DOI: 10.3923/ijp.2020.282.290.
6. Salwa, M. El-sayed and Heba, M. Emam (2021**). Effect of propolis extract (bee glue) on Tetranychus urticae Koch (Acari: Tetranychidae) under greenhouse conditions.** Persian J. Acarol., 10 (3): 299–308. https://doi.org/10.22073/pja.v10i3.66732.
7. Heba, M. Emam; Manal S. Helal; Mervat A.R. Ibrahim and Salwa M. EL Sayed (2021). **Greenhouse and Laboratory Evaluation of The Efficiency of Green Silicon Dioxide Nanoparticles against Tetranychus urticae (Koch).** Arab Univ. J. Agric. Sci., 29 (3) 901-912. DOI:10.21608/ajs.2021.92246.1411.
8. Gamal A. Gabr, Salwa M. El-Sayed, Mohamed S. Hikal and Abd El-Monaem El- Assarn (2021). **Ameliorative effect of Spirulina platensis bioactive compounds on oxidative stress lipid profile kidney and liver function markers of steptozotcin-induced Diabetic Rats**. Fresenius Environmental Bulletin, 20 (06A):7117-7126.
9. Hala B Eliwa, Mervat AR Ibrahim, Salwa M EL-Sayed, Mohamed F Abdelhamid (2022). **Steroidal Saponins as Antioxidant and Alleviator of CCl4-Induced Oxidative Damage in Albino Rats.** Arab Univ. J. Agric. Sci., 30 (2) 1-10. DOI: 10.21608/ajs.2022.131489.1475
10. Gamal A. Gabr, Salwa M. El-Sayed, Khalid M. Alharthy, Vidya Devanathadesikan Seshadri and Nahla M.M. Hassan. **Hepatoprotective Effect of Spirulina platensis on Liver Functions of Diabetic Rats via TNF-α and IL-6 Pathway.** Int. J. Pharmacol., 18 (5): 915-923, 2022. DOI: 10.3923/ijp.2022.915.923.
11. Salwa M. El-Sayed, Nevin Ahmed, Samy Selim, Areej A. Al-Khalaf, Nihal El Nahhas, Shams H. Abdel-Hafez, Samy Sayed, Heba M. Emam and Mervat A. R. Ibrahim (2022). **Acaricidal and Antioxidant Activities of Anise Oil (*Pimpinella anisum*) and the Oil's Effect on Protease and Acetylcholinesterase in the Two-Spotted Spider Mite (Tetranychus urticae Koch).** Agriculture 2022, 12, 224.1-14. https://doi.org/10.3390/ agriculture12020224.
12. Salwa M. El-Sayed, Karim. M. Hassan, Ahmed. N. Abdelhamid , Eman E. Yousef, Yasmin M. R. Abdellatif ,Samah H. Abu-Hussien , Mohamed A. Nasser , Walaa. A. Elshalakany, Doaa Bahaa Eldin Darwish, Awatif M. Abdulmajeed, Nadiyah M. Alabdallah , Salem Mesfir Al-Qahtani ,Nadi Awad Al-Harbi, Eldessoky S. Dessoky, Hatem Ashour and Mohamed F. M. Ibrahim. **Exogenous Paclobutrazol Reinforces the Antioxidant and Antimicrobial Properties of Lavender (Lavandula officinalis L.) Oil through Modulating Its Composition of Oxygenated Terpenes**. Plants 2022, 11, 1607, 1-17. https://doi.org/10.3390/ plants11121607.
13. Nasser , M.A.; El-Mogy, M.M.; Samaan, M.S.F.; Hassan, K.M.; El-Sayed, S.M.; Alsubeie, M.S.; Darwish, D.B.E.; Mahmoud, S.F.; Al-Harbi, N.A.; Al-Qahtani, S.M.; Alzuaibr, F.M.; Abd El-Gawad, H.G**. Postharvest Exogenous Melatonin Treatment of Table Grape Berry Enhances Quality and Maintains Bioactive Compounds during Refrigerated Storage.** Horticulturae, 2022, 8, 860, 1-11. https://doi.org/10.3390/ horticulturae8100860
14. Salwa M. El-sayed, Mona I. Nossier and Ahmed Ibrahim Nossier, **Faba beans with enhanced antioxidant activity ameliorate acetic acid-induced colitis in experimental rats.** The Royal Society of Chemistry 2022, DOI: 10.1039/d2fo02782h.
15. Mona Ibrahim Nossier, Shaimaa Hassan Abd-Elrahman and Salwa Mahmoud El-Sayed. **Effect of using garlic and lemon peels extracts with selenium on Vicia faba productivity**, Asian J Agric & Biol. 2022(4):1-10. DOI:https://doi.org/10.35495/ajab.2021.07.276.
16. Samah H. Abu-Hussien, Bahaa A. Hemdan, Othman M. Alzahrani, Amal S. Alswat, Fuad A. Alatawi, Muneefah Abdullah Alenezi, Doaa Bahaa Eldin Darwish, Hanouf S. Bafhaid, Samy F.

Mahmoud, Mohamed F. M. Ibrahim and Salwa M. El-Sayed. **Microbial Degradation, Spectral analysis and Toxicological Assessment of Malachite Green Dye by Streptomyces exfoliatus.** Molecules, 2022, 27, 6456. https://doi.org/ 10.3390/molecules27196456

17. El-Beltagi, H.S.; El-Sayed, S.M.; Abdelhamid, A.N.; Hassan,K.M.; Elshalakany,W.A.; Nossier, M.I.; Alabdallah, N.M.; Al-Harbi, N.A.; Al-Qahtani, S.M.; Darwish, D.B.E.; et al. **Potentiating Biosynthesis of Alkaloids and Polyphenolic Substances in Catharanthus roseus Plant Using κ-Carrageenan.** Molecules 2023, 28, 3642. https://doi.org/10.3390/molecules28083642.
18. Basma T. Abd-Elhalim, Bahaa A. Hemdan, Salwa M. El-Sayed, Mahgoub A. Ahmed, Sodaf A. Maan & Samah H. Abu-Hussien. **Enhancing durability and sustainable preservation of Egyptian stone monuments using metabolites produced by Streptomyces exfoliates.** Scientific Reports, 2023, 13:9458, https://doi.org/10.1038/s41598-023-36542-1
19. Maryam Amr, Samah H. Abu-Hussien, Radwa Ismail, Asmaa Aboubakr, Rahma Wael, Mariam Yasser, Bahaa Hemdan, Salwa M. El-Sayed, Ashraf Bakry, Naglaa M. Ebeed, Hesham Elhariry, Ahmed Galal & Basma T. Abd-Elhalim. **Utilization of biosynthesized silver nanoparticles from Agaricus bisporus extract for food safety application: synthesis, characterization, antimicrobial efficacy, and toxicological assessment**. Scientific Reports, 2023, 13:15048 https://doi.org/10.1038/s41598-023-42103-3
20. Tokaa Mansour, Wafaa H. Radwan, Menna Mansour, Mohamed Gomaa, Farouk Farouk, Mohamed Shepl, Ahmed G. Soliman, Basma T. Abd-Elhalim, Mohamed M. K. El-Senosy, Ashraf Bakry, Naglaa M. Ebeed, Neima K. Alsenosy, Hesham Elhariry, Ahmed Galal, Salwa M. El-Sayed, Eslam Adly & Samah H. Abu-Hussien. **Larvicidal potential, toxicological assessment, and molecular docking studies of four Egyptian bacterial strains against *Culex pipiens* L. (Diptera: Culicidae).** Scientific Reports, 2023, 13:17230, https://doi.org/10.1038/s41598-023-44279-0.