CURRICULM VITAE

Shaimaa Waz Amgad Ali, Ph.D.

Associate Professor
Department of Biochemistry
Faculty of Pharmacy
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EDUCATION/TRAININIG

2013-2017 **Ph.D. in Biochemistry, "Structural and Kinetic Studies On The Broad Substrate Specificity Of Human MTH1 Protein".**
Graduate School of Pharmaceutical Sciences, Kumamoto University, Kumamoto, JAPAN.

2007-2011 **Master in Biochemistry, "Glycoregulatory Enzymes Perturbation in Experimentally-Induced Hepatocellular Carcinoma".**
Faculty of Pharmacy, Minia University, Egypt.

2003-2007 **Bachelor of Pharmaceutical Sciences.**
(90.8%) Excellent with degree of honor.
Faculty of Pharmacy, Minia University, Egypt.

CURRENT AND PREVIOUS POSTS

2023- Now **Associate Professor**
Biochemistry Department, Faculty of Pharmacy, Minia University, Egypt.

2017-2022 **Assistant Professor**
Biochemistry Department, Faculty of Pharmacy, Minia University, Egypt.

2013-2017 **Ph.D. student**
Graduate School of Pharmaceutical Sciences, Kumamoto University, Kumamoto, Japan. (Mission from **Egyptian Ministry of Higher Education)**

2007-2013 **Teaching Assistant**
Biochemistry Department - Faculty of Pharmacy, Minia University, Egypt.

Publications

- **Papers published in academic journals**.

1. **Blackberry-Loaded AgNPs Attenuate Hepatic Ischemia/Reperfusion Injury via PI3K/Akt/mTOR Pathway.** Ahmed M. Fathi , Shaimaa Waz, Eman Alaaeldin , Nisreen D. M. Toni, Azza A. K. El-Sheikh, Ahmed M. Sayed, Usama Ramadan Abdelmohsen and Maiiada H. Nazmy. ***Metabolites,*** 13 (2023) 419. https://doi.org/10.3390/metabo13030419

Q2 (*Biochemistry & Molecular Biology*) and **Impact Factor:** 4.1

2. **Mechanistic Insights into the Ameliorative Effect of Cichoriin on Diabetic Rats—Assisted with an In Silico Approach.** Hany Ezzat Khalil, Miada F. Abdelwahab, Hairul-Islam Mohamed Ibrahim, Khalid A. AlYahya, Ahmed Adel Mohamed, Amira Samir Radwan and **Shaimaa Waz.** ***Molecules,*** 27 (2022) 7192. https://doi.org/10.3390/molecules27217192

Q2 (*Biochemistry & Molecular Biology*) and **Impact Factor:** 4.4

3. **Cichoriin, a Biocoumarin, Mitigates Oxidative Stress and Associated Adverse Dysfunctions on High-Fat Diet-Induced Obesity in Rats.** Hany Ezzat Khalil, Miada F. Abdelwahab, Hairul-Islam Mohamed Ibrahim, Khalid A. AlYahya , Abdullah Abdulhamid Altaweel, Abdullah Jalal Alasoom, Hussein Ali Burshed, Marwan Mohamed Alshawush and **Shaimaa Waz.** ***Life,*** 12 (2022) 1731. https://doi.org/10.3390/life12111731

Q3 (*Biochemistry & Molecular Biology*) and **Impact Factor:** 3.2

4. **Agomelatine ameliorates cadmium-induced toxicity through the modification of HMGB-1/TLR-4/NFκB pathway.** Heba M. Hafez, **Shaimaa Waz,** Nashwa Fathy Gamal El-Tahawy, Mervat Z. Mohamed. ***Toxicology and Applied Pharmacology,*** 457 (2022) 116313. https://doi.org/10.1016/j.taap.2022.116313

Q1 (*Pharmacology &Toxicology*) and **Impact Factor:** 3.8

5. **Dihydromyricetin alleviates methotrexate-induced hepatotoxicity via suppressing the TLR4/NF-κB pathway and NLRP3 inflammasome/caspase 1 axis.** Asmaa I. Matouk, Eman M. Awad, Nashwa F.G. El-Tahawy, Azza A.K. El-Sheikh, **Shaimaa Waz.** ***Biomedicine & pharmacotherapy.*** 155 (2022) 113752. https://doi.org/10.1016/j.biopha.2022.113752

Q1 (*Pharmacology &Pharmacy*) and **Impact Factor:** 7.4

6. **Dose-dependent ameliorating effect of lipoxin A4 on gentamicin-induced nephrotoxicity in rats: The role of TNFα, TGF-β, ICAM-1, and JNK signaling.** Yasmine F.Ibrahim, Somaia Hassan Hammady, Rehab A.Rifaai, **ShaimaaWaz**, Mohamed Abdellah Ibrahim, Heba M.Hafeza. ***Chemico-Biological Interactions.*** 366 (2022) 110139, https://doi.org/10.1016/j.cbi.2022.110139

Q2 (*Biochemistry & Molecular Biology*) and **Impact Factor:** 5.1

7. **TLRs-JNK/ NF-κB Pathway Underlies the Protective Effect of the Sulfide Salt against Liver Toxicity**. Rania Abdel-latif, Gehan Hussein Heeba, Soha Osama Hassanin, **Shaimaa Waz**, Amr Amin. ***Front. Pharmacol. - Gastrointestinal and Hepatic Pharmacology,*** 13 (2022) 850066, https://doi.org/10.3389/fphar.2022.850066

Q1 (*Pharmacology &Pharmacy*) and **Impact Factor:** 5.9

8. **Involvement of NOX-4/JAK/STAT pathway in the protective effect of aprepitant against diclofenac-induced renal toxicity.** Heba Hafez; **Shaimaa Waz**; Rehab Ahmed Rifaai; Mervat Z. Mohamed. ***Life Sciences,*** 294 (2022) 120381, https://doi.org/10.1016/j.lfs.2022.120381

Q1 (*Pharmacology &Pharmacy*) and **Impact Factor:** 6.7

9. **Cardioprotective effect of allyl isothiocyanate in a rat model of doxorubicin acute toxicity.** **Shaimaa Waz**, Asmaa I Matouk. ***Toxicol Mech Methods,*** **2021;** 32 (3): 194-203, https://doi.org/10.1080/15376516.2021.1992064

Q2 (*Toxicology*) and **Impact Factor:** 4.0

10. **Nephroprotective effect of exogenous hydrogen sulfide donor against cyclophosphamide-induced toxicity is mediated by Nrf2/HO-1/NF-κB signaling pathway**. **Shaimaa Waz,** Gehan Hussein Heeba, Soha Osama Hassanin, Rania G. Abdel-latif; ***Life Sciences***, 264 (**2021)** 118630. https://doi.org/10.1016/j.lfs.2020.118630

Q1 (*Pharmacology &Pharmacy*) and **Impact Factor:** 6.7

11. **Structural and Kinetic Studies of the Human Nudix Hydrolase MTH1 Reveal the Mechanism for Its Broad Substrate Specificity.** **Shaimaa Waz,** Teruya Nakamura, Keisuke Hirata, Yukari Koga-Ogawa, Mami Chirifu, Takao Arimori, Taro Tamada, Shinji Ikemizu, Yusaku Nakabeppu, Yuriko Yamagata; ***Journal of Biological Chemistry,*** **292 (2017**) 2785–2794. https://doi.org/10.1074/jbc.M116.749713

Q2 (*Biochemistry & Molecular Biology*) and **Impact Factor:** 4.8

12. **Can methanolic extract of Nigella sativa seed affect glycol-regulatory enzymes in experimental hepatocellular carcinoma?** Nabil Mohie Abdel-Hamid, Manal Ismael Abdel-Ghany, Miada Hassan Nazmy, **Shaimaa Waz; *Environ. Health Prev. Med.*** 18 (**2013**) 49-56. doi: 10.1007/s12199-012-0292-8

Q2 (*Public, Environmental & Occupational Health*) and **Impact Factor:** 4.7

13. **Glycoregulatory Enzymes as Early Diagnostic Markers during Premalignant Stage in Hepatocellular Carcinoma.** Nabil Mohie Abdel-Hamid, Moustafa Fathy Ramadan, **Shaimaa Waz**; *American Journal of Cancer Prevention*. **1 (2013)** 14-19. DOI: 10.12691/ajcp-10-1-3

- **Announcement at International Association【Poster presentation】**

1. **Shaimaa Ali**, Teruya Nakamura, Keisuke Hirata, Mami Chirifu, Shinji Ikemizu, Yuriko Yamagata

(Abstract name)	Structural and kinetic analysis of the broad substrate specificity of human oxidative nucleotide hydrolase.
(Society name)	*The 16th Annual Meeting of the Protein Science Society of Japan* , (Fukuoka. 6/6-9, 2016)

2. ***Shaimaa Ali,*** Teruya Nakamura, Keisuke Hirata, Mami Chirifu, Shinji Ikemizu, Yuriko Yamagata

(Abstract name)	Structural and mutational analysis of human MTH1 provides insight into the broad substrate specificity.
(Society name)	*Japan-Turkey International Symposium on Pharmaceutical and Biomedical Sciences,* (Kumamoto. 10/2-3, 2016)

TRANING COURSES, WEBINARS, AND WORKSHOPS

1. Nature Research Academies workshop, organized by *Egyptian Knowledge Bank (EKB):*
   "Effective Academic Writing" **(**6th December**, 2022)**
2. The servier international webinar on diabetes, INVIVOX.
   "*Treatment decision for T2DM patients: Oral Agents Fact Checking*"
   (31st May **2022**)
3. Excellence platform workshop:
   "From Lab to publication (Phylogenetic Tree Science)" (27/8-17/9/**2022**)
4. The First Scientific Training Course, Molecular Biology Unit, Faculty of Pharmacy, Minia University.
   "*Animal Care and Handling*" (12-13/2/**2019**)
5. The Third Scientific Training Course, Molecular Biology Unit, Faculty of Pharmacy, Minia University.
   "*Western Blotting*" **(**17-18/4/**2019**)
6. Training Courses in the Information Technology center (ITC), Minia University, Minia, Egypt.

   "Statistical Analysis Using SPSS" (28-29/9/**2022)**

   "Building Websites" (29-30/3/**2022)**

   "*Searching in Scientific Data bases and Making Scientific References*"
   (14-16/5/**2017)**

   "*Advanced Power Point*" (9-10/5/**2017**)

   "*Advanced Word Processing*" (7-8/5/**2017**)
7. Training course in the Faculty and leadership development center (FLDC), Cairo University, Giza, Egypt.
   "*University Management*" (17-18/5/**2017**)
8. Training courses in the Faculty and leadership development center (FLDC), Minia University, Minia, Egypt.

   "Strategic Planning" (27-28/11/**2022)**

   "Professional ethics" (18-19/10/**2022)**

"Dealing with students with special needs"	(2-3/02/**2021)**
"*anti-Corruption*"	(3-4/11/**2020)**
"*Ethics of scientific research*"	(3-4/5/**2017**)
"*The use of technology in teaching*"	(26-27/4/**2017**)
"*Effective presentation*"	(8-10/7/**2008**)
"*Research team management*"	(26-28/8/**2008**)
"*Quality standards in the teaching process*"	(26-28/8/**2008**)
"*Exam systems and student assessment*"	(29-30/10/**2008**)
"*Communication skills in different learning styles*"	(24-26/12/**2008**)
"*Scientific Publishing*"	(30-31/12/**2008**)

RESEARCH

I get experienced in Molecular Biology techniques, Including:

1- General Basic Molecular Biology Techniques:

Preparation of competent bacterial cells, Transformation of competent bacterial cells with DNA, conducting different types of gel electrophoresis, small and large scale DNA plasmid preparation, site-directed mutagenesis, polymerase chain reaction (PCR) and cloning.

2- Protein Biology:

Expression and purification of recombinant proteins using different FPLC techniques, identification and quantification of proteins using western blotting technique, kinetic activity of enzymes and protein crystallization.

3- I have also conducted experiments involving animal models (rats) during my master degree and postdoctoral researches.

TEACHING EXPERIENCE

Molecular biology: This is an introductory course for molecular biology that covers the theoretical bases of DNA, RNA, and proteins in addition to basic Practical Molecular Biology techniques such as PCR, electrophoresis and Western blotting.

Biochemistry-I: It is an introductory course that covers fundamental theoretical concepts of Biochemistry and applications of the Biochemistry in life; the chemistry of carbohydrates, amino acids, proteins, lipids and enzyme regulations.

Biochemistry-II: This course is covering the metabolic pathways of biomolecules including; carbohydrates, lipids, steroids, amino acids, proteins in addition to their regulation and their clinical application.

Clinical Biochemistry: The course provides students with an overview of the metabolic disorders related to metabolism of carbohydrates, lipids, steroids, amino acids, proteins, nucleoproteins, nucleic acids and hemoproteins. The lectures also provide students with an overview of the pathophysiology, diagnosis and treatment of Diabetes Mellitus, Viral Hepatitis, Anemia, Renal failure, Gastrointestinal diseases, and Obesity.

SKILLS

Language: I am **ARABIC** native speaker and also practice **ENGLISH.** I studied all my courses from undergraduate levels in ENGLISH language. I passed TOFEL iBT (75 scores).

Scientific writing: I practice the **scientific writing of** journal articles, scientific posters, thesis, and research proposals.

Computer Skills: I get a good experience with specific statistical software **(GraphPad Prism).** I also utilized **EndNote and Mendeley** softwares for bibliographies, citations and references. I used **Pymol** software for protein structure analysis and visualization.

Teaching Skills: I participate in fulfills course requirements including; **course syllabus, course specifications, course files and reports**. I shared in curriculum planning and development.

REFERENCES

Ahmed Wahid

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Professor of Biochemistry in Faculty of Pharmacy, Minia University, 61519, Minia, Egypt.

Current position: Department of Pharmacology and Toxicology, Division of Biochemistry, College of Pharmacy, Taibah University, Medina, Kingdom of Saudi Arabia.

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Teruya Nakamura

Associate Professor of Structural Biology, Graduate School of Pharmaceutical Sciences, Kumamoto University, 5-1 Oehonmachi, Chuo-ku, Kumamoto, 862-0973 Kumamoto, Japan.

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Yuriko Yamagata

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Shokei University and Shokei University Junior College, 2-6-78, Kuhonji, Chuo-ku, Kumamoto, 862-8678 Kumamoto, Japan

Metrics

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- **Publications:** 13
- **Citations:** 58

Links

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