

Marium Muhamed Hassan Shamaa

Nationality: Egyptian.

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H index: 5

Biography:

She is currently working as head of pharmacology and biochemistry courses and as an assistant professor of Biochemistry and Molecular Biology, college of Pharmacy, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt and simultaneously a member in the editorial board of the Universal Journal of Pharmaceutical Research. She also acts as a reviewer in the Egyptian Liver Journal.

She gives lectures in Biochemistry and molecular biology courses. She got a certificate in clinical nutrition management and bioinformatics. She is passionate in clinical biochemistry and cell culturing field.

She involves her students in a variety of interactive learning techniques, some of them based on cooperative learning, problem solving and mobile learning techniques, Simulation and virtual labs activities that provide them with opportunities to apply the skills in real-life after graduation.

Research and Academic activities:

- ✚ I was nominated to participating in DUPHAT conference with one professional poster presentation entitled **“COVID-19 and immunity mediated through autophagy”** Dubai International Pharmaceutical & Technology Conference & Exhibition, 2022.
- ✚ I was nominated to participating in DUPHAT conference with 3 student’s posters presentation entitled **“Potential antioxidant activities of ginger and peppermint oils extracts”**, **“COVID-19 infection and Liver diseases: characteristics, outcomes and future prospective”** and **“Amygdala and depression”** Dubai International Pharmaceutical & Technology Conference & Exhibition, 2022.
- ✚ I was nominated to participating in DUPHAT conference with 3 posters presentation entitled **“Parkinsonism disease: immunosuppressive and anti-inflammatory as new targeted therapies”**, **“A detailed look into the issues concerning orphan drugs development and their commercialization”** and **“The use of anti-inflammatory drugs in COVID-19 might reverse pathogenesis and prevent complications”** Dubai International Pharmaceutical & Technology Conference & Exhibition, 2021.
- ✚ I was nominated to participating in DUPHAT conference with a poster presentation entitled **“Immunotherapy for different types of cancer: current status and future prospects”** Dubai International Pharmaceutical & Technology Conference & Exhibition, 2020.
- ✚ I was nominated to participating in an international conference with a poster presentation entitled **“Honey/Yoghurt novel combination mediates the antitumor effects in hepatocellular carcinoma cell line”** first edition of the international conference on Food, Nutrition Security and Sustainable Agriculture (FNSSA) to be held in Cairo, Egypt from 1 – 3 December, 2019.
- ✚ I was nominated to participating in PHS conference with two posters presentation entitled **“3D Cell Culture in Cancer Targeted Therapy Discovery”** and **“3D printing of scaffolds for cell delivery and tissue engineering”** International Conference on Pharmaceutical & Healthcare Sciences-PHS 2019, Alexandria University, Egypt.

- ✚ Participated as a supervisor in student's summer school held in University of Pharmacy, Bradford, UK in June 2019. The students showed an astonishing performance and added to their knowledge and experience.
- ✚ I was nominated to participating in DUPHAT conference with a professional poster presentation entitled "**Honey/yoghurt combination induced cytotoxicity against hepatocellular carcinoma**" during the period from 26/2 to 28/2/2019 in United Arab Emirates, Dubai. In addition to participating with another 6 posters entitled "**Inborn error in metabolism: computerized based review**", "**The controversial role of autophagy in cancer: a cure or a cause**", "**The antitumor activity of Regorafenib/Sulfasalazine combination in HCC**", "**The antitumor activity of Regorafenib/Diosmin combination in HCC**", "**Regorafenib/Dasatenib: a novel combination potentially inhibits hepatocellular carcinoma cell line.**", "**Rosuvastatin/Regorafenib: A novel combination potentially mediates antitumor effect in Hepatocellular carcinoma cell line**" Dubai International Pharmaceutical & Technology Conference & Exhibition, 2019.

- ✚ I was nominated to participating in Pharma - 2018 conference with an oral presentation, presentation entitled **“Sulfasalazine/dasatinib: A Novel Combined Therapy in Hepatocellular Carcinoma Cell Line”** during the period from 2/5 to 4/5/2018 in Rome, Italy.
- ✚ I was nominated to participating in Biovision - 2018 conference with a professional poster presentation during the period from 20/4 to 22/4/2018 in Alexandria, Egypt.
- ✚ I was nominated to participating in DUPHAT conference with a professional poster presentation entitled **“Assessment of Health-Related Quality of Life in Patients Receiving Old and New Anti-HCV Medication: Egyptian Patients Questionnaire-Based Study.”** during the period from 27/2 to 1/3/2018 in United Arab Emirates, Dubai. In addition to participating with another poster entitled **“ Multi-targeted tyrosine kinase inhibitors: Benefits and limitations, a computerized literature review.”** Dubai International Pharmaceutical & Technology Conference & Exhibition, 2018.
- ✚ **Participation & presentation of some cooperative teaching and simulation techniques & learning methods** which I implement in clinical and biological science department with some of my distinguished 2nd year students in the **“2nd Pharmacy Day”** held on 12/4/2018 in the main conference hall at the Arab Academy for Science, Technology & Maritime Transport.
- ✚ **The main organizer of the 2nd pharmacy day** held on 12/4/2018 in the main conference hall at the Arab Academy for Science, Technology & Maritime Transport.

Working Experience:

- ✚ **October 2017 (up till Now):** Assistant professor of Biochemistry and Molecular Biology in clinical and biological sciences division, College of Pharmacy, Arab Academy for Science, Technology and Maritime Transport (AASTMT)
- ✚ **January 2017 – September 2017:** Assistant professor of Biochemistry and Molecular Biology in Pharmacology and Toxicology department, Faculty of Pharmacy, Pharos University in Alexandria (PUA)

✚ **December 2016 – September 2017:** Member of the transfer student's committee of the Faculty. Supervisor and organizer of the pharmacology department (Biochemistry course) field project for junior level of the faculty.

✚ **September 2012 – September 2016:** Head of pharmacology department timetables.

✚ **September 2011 (till now):** Supervisor and organizer of graduation projects.

✚ **June 2012 – December 2016:** Assistant Lecturer of Biochemistry and Molecular Biology in Pharmacology and Toxicology department, Faculty of Pharmacy, Pharos University in Alexandria (PUA).

✚ **September 2008- June 2012:** Demonstrator of Biochemistry and molecular Biology in Pharmacology and Toxicology department, Faculty of Pharmacy, Pharos University in Alexandria (PUA).

✚ **September 2007- June 2008:** Demonstrator in Pharmaceutical department, Faculty of Pharmacy, Alexandria University.

✚ **September 2007- June 2008:** Community Pharmacist at Mustafa Khater and Amr Elshadby Pharmacies, Alexandria.

Publications:

1. Elmaaty, Ayman Abo, Ahmed A. Al-Karmalawy, Mohamed S. Nafie, **Marium M. Shamaa**, Islam Zaki, Radwan Alnajjar, and Mohamed Y. Zakaria. "Experimental Design of D- α -tocopherol polyethylene glycol 1000 succinate Stabilized Bile Salt Based Nano-vesicles for Improved Cytotoxicity and Bioavailability of Colchicine Binding Site Inhibitor Candidates: In Vitro, In silico, and Pharmacokinetic Studies." International Journal of Pharmaceutics 640(2023): 122980.
2. Mostafa, Mona M., Maha M. Amin, Mohamed Y. Zakaria, Mohammed Abdalla Hussein, **Marium M. Shamaa**, and Shady M. Abd El-Halim. 2023. "Chitosan Surface-Modified PLGA Nanoparticles Loaded with Cranberry Powder Extract as a Potential Oral Delivery Platform for Targeting Colon Cancer Cells" Pharmaceutics 15, no. 2: 606. <https://doi.org/10.3390/pharmaceutics15020606>.
3. El-Nashar, Heba A. S., Haidy Abbas, Mariam Zewail, Mohamed H. Noureldin, Mai M. Ali, **Marium M. Shamaa**, Mohamed A. Khattab, and Nehal Ibrahim. (2022). "Neuroprotective Effect of Artichoke-Based Nanoformulation in Sporadic Alzheimer's Disease Mouse Model: Focus on Antioxidant, Anti-Inflammatory, and

Amyloidogenic Pathways" *Pharmaceuticals* 15, no. 10: 1202.
<https://doi.org/10.3390/ph15101202>


4. Marium M. Shamaa (2022). **"COVID-19 and immunity mediated through autophagy"** Dubai International Pharmaceutical & Technology Conference & Exhibition, 2022.
5. Marium M. Shamaa (2022). **"Potential antioxidant activities of ginger and peppermint oils extracts"** Dubai International Pharmaceutical & Technology Conference & Exhibition, 2022.
6. Marium M. Shamaa (2022). **"COVID-19 infection and Liver diseases; characteristics, outcomes and future prospective"** Dubai International Pharmaceutical & Technology Conference & Exhibition, 2022.
7. Marium M. Shamaa (2022). **"Amygdala and depression"** Dubai International Pharmaceutical & Technology Conference & Exhibition, 2022.
8. Anwer, K.E.; El-Sattar, N.E.A.A.; **Shamaa, M.M.**; Zakaria, M.Y.; Beshay, B.Y. **Design, Green Synthesis and Tailoring of Vitamin E TPGS Augmented Niosomal Nano-Carrier of Pyrazolopyrimidines as Potential Anti-Liver and Breast Cancer Agents with Accentuated Oral Bioavailability.** *Pharmaceuticals* 2022, 15,330.
<https://doi.org/10.3390/ph15030330>
9. Ahmed M. Farghaly, Omaina M. AboulWafa, Hoda H. Baghdadi, Heba A. Abd El Razik, Samir M.Y. Sedra, **Marium M. Shamaa**, (2021). **New thieno[3,2-d]pyrimidine-based derivatives: Design, synthesis and biological evaluation as antiproliferative agents, EGFR and ARO inhibitors inducing apoptosis in breast cancer cells**, *Bioorganic Chemistry*, Volume 115, 105208, ISSN 0045-2068, <https://doi.org/10.1016/j.bioorg.2021.105208>.
10. Marium M. Shamaa (2021). **"Parkinsonism disease: immunosuppressive and anti-inflammatory as new targeted therapies"** Dubai International Pharmaceutical & Technology Conference & Exhibition, 2021.
11. Marium M. Shamaa (2021). **"A detailed look into the issues concerning orphan drugs development and their commercialization"** Dubai International Pharmaceutical & Technology Conference & Exhibition, 2021.

12. Marium M. Shamaa (2021). **“The use of anti-inflammatory drugs in COVID-19 might reverse pathogenesis and prevent complications”** Dubai International Pharmaceutical & Technology Conference & Exhibition, 2021.
13. Marium M. Shamaa (2020). **Sulfasalazine synergistically enhances the inhibitory effects of imatinib against hepatocellular carcinoma (HCC) cells by targeting NFκB, BCR/ABL, and PI3K/AKT signaling pathway-related proteins.** *FEBS Open Bio*. doi: 10.1002/2211-5463.13052.
14. Marium Shamaa; Mariam Arieby; Marie Mina; Monica Ossama; Heba Salamoony, **“Immunotherapy for different types of cancer: current status and future prospects”**, Dubai International Pharmaceutical & Technology Conference & Exhibition 2020, February, 2020.
15. Marium Shamaa, **“3D Cell Culture in Cancer Targeted Therapy Discovery”**, International Conference on Pharmaceutical & Healthcare Sciences-PHS, Alexandria University, 6-7 November 2019.
16. Marium Shamaa, **“Honey/Yoghurt novel combination mediates the antitumor effects in hepatocellular carcinoma cell line”**, first edition of the international conference on Food, Nutrition Security and Sustainable Agriculture (FNSSA), Cairo, 1 – 3 December, 2019.
17. Mai M. Ali; Marium Shamaa, **“3D printing of scaffolds for cell delivery and tissue engineering”**, International Conference on Pharmaceutical & Healthcare Sciences-PHS 6-7 November 2019.
18. Marium Shamaa, **“Honey/yoghurt combination induced cytotoxicity against hepatocellular carcinoma”**, Dubai International Pharmaceutical & Technology Conference & Exhibition 2019, March, 2019.
19. Marium Shamaa, **“Rosuvastatin/Regorafenib: A novel combination potentially mediates antitumor effect in Hepatocellular carcinoma cell line”**, Dubai International Pharmaceutical & Technology Conference & Exhibition 2019, March, 2019.
20. Marium Shamaa, **“Regorafenib/Dasatenib: a novel combination potentially inhibits hepatocellular carcinoma cell line”**, Dubai International Pharmaceutical & Technology Conference & Exhibition 2019, March, 2019.

21. Marium Shamaa, **“The antitumor activity of Regorafenib/Sulfasalazine combination in HCC”**, Dubai International Pharmaceutical & Technology Conference & Exhibition 2019, March, 2019.
22. Marium Shamaa, **“The antitumor activity of Regorafenib/Diosmin combination in HCC”**, Dubai International Pharmaceutical & Technology Conference & Exhibition 2019, March, 2019.
23. Marium Shamaa, **“The controversial role of autophagy in cancer: a cure or a cause”**, Dubai International Pharmaceutical & Technology Conference & Exhibition 2019, March, 2019.
24. Marium Shamaa, **“Inborn error in metabolism: computerized based review”**, Dubai International Pharmaceutical & Technology Conference & Exhibition 2019, March, 2019.
25. Marium Shamaa (2018), **“Sulfasalazine/dasatinib: A Novel Combined Therapy in Hepatocellular Carcinoma Cell Line”**, *Madridge Journal of Pharmaceutical Research*.
26. Marium Shamaa, **“Sulfasalazine/dasatinib: A Novel Combined Therapy in Hepatocellular Carcinoma Cell Line”**, Pharma – 2018 International conference, May, 2018 in Rome, Italy.
27. Marium Shamaa, **“Assessment of Health-Related Quality of Life in Patients Receiving Old and New Anti-HCV Medication: Egyptian Patients Questionnaire-Based Study”**, Dubai International Pharmaceutical & Technology Conference & Exhibition 2018, March, 2018.
28. Marium Shamaa, **“ Multi-targeted tyrosine kinase inhibitors: Benefits and limitations, a computerized literature review”**, Dubai International Pharmaceutical & Technology Conference & Exhibition 2018, March, 2018.
29. Marium M. Shamaa, Hosny Fouad, Medhat Haroun, Nermine Moussa, Maged Wasfy (2018). **A novel sulfasalazine/sorafenib combination on hepatocellular carcinoma cell line: Role of NFκB, ERK/MAPK, JAK/STAT signaling pathways.** *Journal of Cellular Biochemistry*. In press.

30. Mariam Shamaa (2017). **Sulfasalazine/sorafenib: A novel antitumor combination therapy for HCC. Future prospective.** Book 1st edition. At morebooks.de. Noor Publishing is managed by OmniScriptum Arapers GmbH, Germany.
31. Mariam M. Shamaa, Hosny Fouad, Medhat Haroun, Nermine Moussa, Maged Wasfy (2017). **Evaluation of the Potential Antitumor Effect of Sulfasalazine Alone or in Combination with Sorafenib on Hepatocellular Carcinoma Cell Line.** The International conference in pharmaceutical sciences (4th FUE - ICPS) 2017.
- 23 . Mariam M. Shamaa, Hosny Fouad, Medhat Haroun, Lobna Abu Shamaa(2016). **Angiotensin II type 1 receptor (A1166C) gene polymorphism and essential hypertension in Egyptian population.** *The Egyptian Heart Journal*. 68(1):165-169.
- 24 . Shamaa MM. (2015). **Angiotensin II type 1 receptor (A1166C) gene polymorphism and Essential hypertension in Egypt.** *Journal of Integrative Cardiology*. 1(3): 65-68.
25. Mariam M. Shamaa, Hosny Fouad, Medhat Haroun (2015). **The Influence of Genes Polymorphism of the Renin-Angiotensin System (RAS) on Essential Hypertension.** ", the international conference Advances in Pharmaceutical Sciences" held on 27-29 October 2015 in Pharos University in Alexandria, 2015.
26. Shamaa, M. M.;H. Fouad;M. Haroun, *et al.*,(2013).**Association between the Angiotensinogen (AGT) gene (M235T) polymorphism and Essential Hypertension in Egyptian patients.** *The Egyptian Heart Journal*. 67(1):1-5.

MEMBERSHIP & PROFESSIONAL ACTIVITIES:

-  **The head of Students training unit till 2019** in the College of Pharmacy, Arab Academy for Science, Technology & Maritime Transport.
-  **The College timetables committee**, Arab Academy for Science, Technology & Maritime Transport.
-  **A member in the editorial board** of the Universal Journal of Pharmaceutical Research.
-  Organization of **“2nd Pharmacy day in the academic year 2017/2018”** held on 12/4/2018 in the main conference hall at the Arab Academy for Science, Technology & Maritime Transport.

Languages:

- ✚ **Arabic:** Mother Tongue.
- ✚ **English:** Excellent (TOEFL TPP score of 600/677).

Computer Skills:

- ✚ ICDL 2010 certificate.
- ✚ Windows, MS Word, MS excel, MS power point, Internet: Excellent.

Technical Skills:

- ✚ Exploring the potential biological activity of recent biological compounds using in-vitro cytotoxicity assay and different mammalian cell lines.
- ✚ Extraction and isolation of DNA and RNA from whole blood and cell line.
- ✚ A good experience in the detection of genes using advanced techniques such as PCR, qRT-PCR, polyacrylamide and agarose gel electrophoresis.
- ✚ Dealing Excellency with cell culture techniques such as Thawing, Sub culturing and storage.
- ✚ Diagnostic biochemistry labs techniques (Kits and manual).

Academic research interest:

- ✚ Biochemistry.
- ✚ Clinical Pharmacotherapy.
- ✚ Cell culture.
- ✚ Advanced Molecular Biology.
- ✚ Genetics and Proteomics.
- ✚ Pharmaceutical Biotechnology.

- ✚ Investigate new therapeutic alternatives for better management of different types of cancer.
- ✚ Investigate different factors and mechanisms underlying the better effects of Nano-drugs.

Personal Skills:

- ✚ Accurate and punctual.
- ✚ Adaptable and ambitious.
- ✚ Leadership skills (has been team leader for over 7 years).
- ✚ Team work and hard worker.
- ✚ Conscientious and consistent to my principles.
- ✚ Self learner and always looking for better teaching strategies.
- ✚ Excellent ability to articulate and explain especially to students.
- ✚ Excellent presentation and communication skills.

Conferences, Symposia, Workshops:

- ✚ Got a certificate in clinical nutrition management September 2022.
- ✚ Got a certificate in introduction to bioinformatics August 2021.
- ✚ Participated in DUPHAT conference with 4 posters presentation, Dubai International Pharmaceutical & Technology Conference & Exhibition, 2022.
- ✚ Participated in DUPHAT conference with 3 posters presentation, Dubai International Pharmaceutical & Technology Conference & Exhibition, 2021.
- ✚ Attended " DUPHAT Waterfalls Webinar "Disaster Management"; “Effect of the COVID-19 Pandemic on Cancer Treatment” Webinar, 8 - 11 June, 2020, held in Emirates, Dubai on June, 2020.
- ✚ Participated with a poster in the “International conference in Dubai DUPHAT 2020”, held in Emirates, Dubai on February, 2020.
- ✚ Attended and participated with a professional poster in the “first edition of the international conference on Food, Nutrition Security and Sustainable Agriculture (FNSSA), 2019.”, held in Cairo Egypt on December, 2019.
- ✚ Attended and participated with professional posters in the “International Conference on Pharmaceutical & Healthcare Sciences-PHS 2019”, held in Alexandria, Egypt on November, 2019.
- ✚ Attended and participated with professional posters in the “International conference in Dubai DUPHAT 2019”, held in Emirates, Dubai on March, 2019.
- ✚ Attended and participated with an oral presentation in the “International conference in Rome, Pharma - 2018”, held in Rome, Italy on May, 2018.
- ✚ Attended and participated with professional poster in the “International conference in Alexandria Biovision - 2018”, held in Alexandria on April, 2018.
- ✚ Attended and participated with professional posters in the “International conference in Dubai DUPHAT 2018”, held in Emirates, Dubai on March, 2018.
- ✚ Taking the Clinical Pharmacotherapy Course for the American board in pharmacotherapy, 2018.

- ✚ Attended "PCR and DNA damage" workshop, 12 - 14 August, 2017, Faculty of medicine, Alexandria University, Egypt.
- ✚ Attended "Challenging virus C in Egypt: dreams versus reality", 25th May, 2017, Faculty of medicine, Alexandria university, Egypt.
- ✚ Attended and participated with a poster in the “International conference in pharmaceutical sciences” Future University held in Cairo on 31 January, 2017.

- ✚ Attended, organized and participated with a poster in the International conference on advances in pharmaceutical sciences “iCAPS” held in PUA on October 2015.
- ✚ Attended "Pharma Middle East International Conference", 2-4 November, 2015, Dubai, Emirates.
- ✚ Attended “Biovision” 2008, 2010 at Bibliotheca Alexandrina.
- ✚ Participated and attended "Large Scale Gene expression analysis using Microarray and Real time PCR techniques" workshop held in Cairo, Egypt in September,2013.
- ✚ Attended EDC workshops provided by PUA.
- ✚ Attended "Forensic Lab Workers Training" workshop provided by Faculty of Pharmacy, Alexandria University, 2007.
- ✚ Attended "Bioinformatics" workshop provided by Faculty of Pharmacy, PUA, 2012.
- ✚ Attended "Scientific Writing" workshop provided by Faculty of Pharmacy, PUA, 2015.
- ✚ Attended "Endnote" workshop provided by Faculty of Pharmacy, PUA, 2012.

REFERENCES:

- ✚ ***Prof. Dr. Hosny Fouad***, Professor of Biochemistry, Pharmacology Department, Alexandria University.
- ✚ ***Ass. Prof. Dr. Maged Wasfy*** Professor of Pharmacology, Pharmacology Department, Damanhour University.
- ✚ ***Prof. Dr. Samira Saleh***, Professor of Pharmacology, Pharmacology Department, Cairo University.