



AHMED MOHAMED ALAA EL DIN ATWA

Assistant Professor in Pharmacology & Toxicology
Assistant Professor in Clinical Pharmacy



ABOUT ME

Experienced Assistant Professor in Pharmacology & Toxicology, clinical pharmacy, skilled in innovative teaching methods and research. Proven track record in simplifying complex concepts and fostering student engagement. Published researcher with expertise in experimental animal models. Proficient in computer-aided teaching and committed to academic excellence. Actively involved in quality assurance and accreditation efforts. Passionate about guiding students toward successful careers. Ready to contribute to your institution's success.

CONTACTS

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**Research gate:**

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**Googlescholar:**

<https://scholar.google.com/citations?user=GpRduSAAAAAJ&hl=en>

**Address:**

Block 37, building 2B, 9th district,
Mostafa El Nahas extension, Nasr
City, Cairo, Egypt

EDUCATION

Doctor of Philosophy (Ph.D.) in Pharmacology & Toxicology | 2012 – 2018

- Cairo University, Faculty of Pharmacy

Master of Science (M.Sc.) in Pharmacology & Toxicology | 2008 – 2012

- Cairo University, Faculty of Pharmacy

Bachelors of Pharmaceutical Science | 2000 – 2004

- October 6th University
- Awards: Graduated with honors

WORK EXPERIENCE

Assistant Professor in Pharmacology & Toxicology Department | Egyptian Russian University, Badr City, Cairo | 2018 – Present**Assistant Professor in Clinical Pharmacy Department | Egyptian Russian University, Badr City, Cairo | Spring 2024, Summer 2024****Key Responsibilities:**

- Spearhead advanced courses in Pharmacology and Toxicology, cultivating a profound understanding of complex concepts among students.
- Supervise and advise graduate students in their academic and research pursuits, guiding them toward scholarly excellence.
- Innovate and implement contemporary teaching methodologies, optimizing the learning environment.
- Lead research projects and publish findings in esteemed journals, establishing a significant scholarly presence.
- Collaborate actively with fellow faculty members on interdisciplinary research endeavors.

Key Achievements:

- Pioneered the integration of cutting-edge simulation software in the classroom, enhancing student comprehension and engagement.
- Successfully secured substantial research grants exceeding \$150,000, supporting groundbreaking research in Pharmacology.
- Acknowledged for academic excellence through the publication of 28 research papers in reputable journals, elevating the institution's research profile.
- Earned recognition as the recipient of the "Outstanding Faculty Member" award for outstanding contributions to student growth and development.
- Spearheaded a groundbreaking research team that uncovered a novel therapeutic approach to a prevalent health issue, poised for real-world implementation.

PERSONAL INFO

- Date of Birth: July 01, 1982
- Nationality: American/Egyptian
- Military Status: Exempted
- Marital Status: Married

LANGUAGES

- Arabic: Native
- English : Very Good

WORK EXPERIENCE

Assistant Lecturer in Pharmacology & Toxicology Department | Egyptian Russian University, Badr City, Cairo | 2015 – 2018

Key Responsibilities:

- Delivered comprehensive lectures and conducted hands-on laboratory sessions, fostering an in-depth understanding of Pharmacology concepts among students.
- Actively contributed to the creation and refinement of course materials and assessment tools, enriching the educational experience.
- Providing academic guidance and mentorship to students was a key aspect of my role, fostering their intellectual growth and preparing them for academic and professional success.
- Collaborated on faculty committees and participated in extracurricular educational initiatives and conducted impactful research projects, disseminating findings in distinguished academic journals.

Key Achievements:

- Pioneered a student mentorship program that led to a substantial 20% improvement in overall student academic performance.
- Forged valuable partnerships with leading pharmaceutical companies, resulting in substantial research grants.
- Garnered high student satisfaction ratings for teaching effectiveness and clarity, attesting to pedagogical excellence.

Teaching Assistant in Pharmacology & Toxicology Department | 6th October University, 6th October City, Giza | 2004 – 2008

Key Responsibilities:

- Assisted senior faculty members in teaching fundamental Pharmacology courses, ensuring students gained a strong foundational knowledge.
- Supported in the development of course materials and assessments and offered guidance and academic counsel to students, fostering their intellectual growth.
- Engaged actively in university committees and academic activities and participated in research projects with a focus on advancing Pharmacological knowledge.

Key Achievements:

- Demonstrated a steadfast commitment to supporting students, contributing to an improved learning experience.
- Collaboration on research initiatives aimed at advancing the field of Pharmacology provided invaluable contributions to academic exploration and knowledge dissemination.
- My consistent dedication and diligence in all academic endeavors established a reputation for excellence within the academic community.

TRAINING EXPERIENCES

- International Publishing of Scientific Research | Faculty and Leadership Development Center | Cairo University | 2023
- Exams and Students Evaluation Systems | Faculty and Leadership Development Center | Cairo University | 2023
- Critical Thinking | Faculty and Leadership Development Center | Cairo University | 2023
- Essentials of Integrated Education | Faculty and Leadership Development Center | Cairo University | 2023
- E-Learning | University Quality Assurance Center, ERU | 2020
- Flagship TOT Training Program for Women in Hepatitis | Africa WIHA (Live Well Initiative Academy) | 2019
- Exams Systems and Student Assessment Methods | National Authority for Quality Assurance and Accreditation of Education | 2018
- Wet Demonstration on Real-Time PCR Technique | ABGL Egypt | 2018
- ICDL (International Computer Driving License) | Cairo University | 2015
- Critical care course (theoretical teaching) | Egyptian Medical Syndicate | 2014
- Electrocardiogram interpretation course (theoretical teaching) | Egyptian Medical Syndicate | 2014
- Arrhythmia Course (Theoretical Teaching) | Egyptian Medical Syndicate | 2014
- Clinical pharmacy practice clerkship | MUST University | 2014
- Clinical pharmacy course | International Cultural Center for Training Department of Medical Education | 2004
- First aid course | International Cultural Center for Training Department of Medical Education | 2004

CONFERENCES

- Professional Conference Organizer | Arab International Pharmacy Conference 2021 | Arab Association of Pharmacy Progress | Hilton Heliopolis, Cairo, Egypt.
- 3rd International Conference of Pharmaceutical Sciences 2023 | Advancements in Pharmacy Research | Egyptian Russian University, Cairo, Egypt.

MASTER'S AND PHD DEGREES SUPERVISION

Master's Degree Supervision:

- Manar Abd El Salam El Didamony
- Ebtesam Mohamed El Khouly
- Norhan Abd El Badie
- Abeer Ahmed Refaey
- Tasneem Ashraf Elsayed Ahmed

PhD Degree Supervision:

- Manar Abd El Salam El Didamony
- Ali Mohamed El Gendy

ACTIVITIES AND CONTRIBUTIONS

- Throughout my academic and professional journey, I have actively engaged in various activities and made significant contributions in different roles:
- Scientific Committee Member in the 3rd International Conference of Pharmaceutical Sciences 2023 (Advancements in Pharmacy Research).
- Poster reviewer in the 3rd International Conference of Pharmaceutical Sciences 2023 (Advancements in Pharmacy Research).
- Member of the 4th Year Control | (Faculty of Pharmacy, ERU) | 2021 – Present.
- Secretary of the Training and Awareness Committee | Quality Assurance Unit at the faculty of pharmacy (Egyptian Russian University) | 2018 – 2020
- Member of the 3rd Year Control | (Faculty of Pharmacy, ERU) | 2016 – 2020
- Chairman of the Committee of Complaints | Quality Assurance Unit at the faculty of pharmacy (Egyptian Russian University) | 2021
- Organization of Students' Union Elections at ERU

PUBLICATIONS

- Atia GA, Rashed F, Taher ES, Ssang-Goo Cho, Dayem AA, Soliman MM, Shalaby HK, Mohammed NA, Taymour N, El-Sherbiny M, Ebrahim E, Ramadan MM, Abdelkader A, Abdo M, Aldarmahi AA, **Atwa AM**, Bafail DA, Abdeen A. **Challenges of therapeutic applications and regenerative capacities of urine based stem cells in oral, and maxillofacial reconstruction.** *Biomedicine and Pharmacotherapy*. 2024;177:117005. <https://doi.org/10.1016/j.biopha.2024.117005>
- El-Nablaway M, Rashed F, Taher ES, Atia GA, Foda T, Mohammed NA, Abdeen A, Abdo M, Hinda I, Imbrea AM, Taymour N, Ibrahim AM, **Atwa AM**, Ibrahim SF, Ramadan MM, Dinu S. **Bioactive injectable mucoadhesive thermosensitive natural polymeric hydrogels for oral bone and periodontal regeneration.** *Frontiers in Bioengineering and Biotechnology*. 2024 May 28; 12:1384326. <https://doi.org/10.3389/fbioe.2024.1384326> PMID: 38863491; PMCID: PMC11166210.
- Abu-Elfotuh K, Hamdan AME, Mohamed SA, Bakr RO, Ahmed AH, **Atwa AM**, Hamdan AM, Alanzai AG, Alnahhas RK, Gowifel AMH, & Salem MA. **The potential anti-Alzheimer's activity of Oxalis corniculata Linn. Methanolic extract in experimental rats: Role of APOE4/LRP1, TLR4/NF- κ B/NLRP3, Wnt 3/ β -catenin/GSK-3 β , autophagy and apoptotic cues.** *Journal of Ethnopharmacology*, 2024;324:117731. <https://doi.org/10.1016/j.jep.2024.117731>
- Halawa EM, Fadel M, Al-Rabia MW, Behairy A, Nouh NA, Abdo M, Olga R, Fericean L, **Atwa AM**, El-Nablaway M, & Abdeen A. **Antibiotic action and resistance: updated review of mechanisms, spread, influencing factors, and alternative approaches for combating resistance.** *Frontiers in pharmacology*, 2024;14:1305294. <https://doi.org/10.3389/fphar.2023.1305294>
- Abdel-Reheim MA, Zaafar D, El-Shoura EAM, Abdelaal N, **Atwa AM**, Bazeed SM, & Mahmoud H M. **Unlocking the miRNA-34a-5p/TGF- β and HMGB1/PI3K/Akt/mTOR crosstalk participate in the enhanced cardiac protection of liraglutide against isoproterenol-induced acute myocardial injury rat model.** *International Immunopharmacology*, 2024;127:111369. <https://doi.org/10.1016/j.intimp.2023.111369>
- Didamoony MA, Soubh AA, **Atwa AM**, Ahmed LA. **Innovative preconditioning strategies for improving the therapeutic efficacy of extracellular vesicles derived from mesenchymal stem cells in gastrointestinal diseases.** *Inflammopharmacology*. 2023 Oct 24. doi: 10.1007/s10787-023-01350-6. Epub ahead of print. PMID: 37874430.

PUBLICATIONS

- Althagafy HS, Ali FEM, Hassanein EHM, Mohammedsaleh ZM, Kotb El-Sayed MI, **Atwa AM**, Sayed AM, Soubh AA. **Canagliflozin ameliorates ulcerative colitis via regulation of TLR4/MAPK/NF- κ B and Nrf2/PPAR- γ /SIRT1 signaling pathways.** *European Journal of Pharmacology*. 2023;960:176166. doi:10.1016/j.ejphar.2023.176166
- Mohammedsaleh ZM, Hassanein EHM, Ali FEM, Althagafy HS, Al-Abbas NS, **Atwa AM**. **Perindopril Dampens Cd-induced Nephrotoxicity by Suppressing Inflammatory Burden, Ang II/Ang 1-7, and Apoptosis Signaling Pathways.** *Biological Trace Element Research* 2023;10.1007/s12011-023-03907-6. doi:10.1007/s12011-023-03907-6
- Ramadan L, Daidamoony M., Elgindy A., Mustafa A., Hassan E., Abdel-Rahman H., **Atwa AM**. **Mitigation of Aluminum Chloride-Induced Alzheimer's disease by blueberry in rat model.** *ERU Research Journal*, 2023; 2(4): 682-698. doi: 10.21608/erurj.2023.212817.1031
- Atia GA, Shalaby HK, Roomi AB, Ghobashy MM, Attia HA, Mohamed SZ, Abdeen A, Abdo M, Fericean L, Bănăţean Dunea I, **Atwa AM**, Hasan T, Mady W, Abdelkader A, Ali SA, Habotta OA, Azouz RA, Malhat F, Shukry M, Foda T, Dinu S. **Macro, Micro, and Nano-Inspired Bioactive Polymeric Biomaterials in Therapeutic, and Regenerative Orofacial Applications.** *Drug Design, Development and Therapy*. 2023;17:2985-3021 <https://doi.org/10.2147/DDDT.S419361>
- Abu-Elfotuh K, Selim Heba M., Riad Omnia Karem M., Hamdan Ahmed M. E., Hassanin Soha Osama, Sharif Asmaa F., Moustafa Nouran Magdy, Gowifel AM.H., Marwa YA., **Atwa AM**, Zaghlool SS., Nour El-Din M. **The protective effects of sesamol and/or the probiotic, Lactobacillus rhamnosus, against aluminum chloride-induced neurotoxicity and hepatotoxicity in rats: Modulation of Wnt/ β -catenin/GSK-3 β , JAK-2/STAT-3, PPAR- γ , inflammatory, and apoptotic pathways.** *Frontiers in Pharmacology*, 2023; 14. <https://doi.org/10.3389/fphar.2023.1208252>
- Habotta OA, Abdeen A, El-Hanafy AA, Yassin N, Elgameel D, Ibrahim SF, Abdelrahman D, Hasan T, Imbrea F, Ghamry HI, Fericean L, Behairy A, **Atwa AM**, Abdelkader A, Mahdi MR, El-Mosallamy SA. **Sesquiterpene nootkatone counteracted the melamine-induced neurotoxicity via repressing of oxidative stress, inflammatory, and apoptotic trajectories.** *Biomedicine & Pharmacotherapy*. 2023 Jul 14;165:115133. doi: 10.1016/j.biopha.2023.115133. Epub ahead of print. PMID: 37454594.
- Shanab O, El-Rayes SM, Khalil WF, Ahmed N, Abdelkader A, Aborayah NH, **Atwa AM**, Mohammed FI, Nasr HE, Ibrahim SF, Khatatb AM, Alsieni M, Behairy A, Fericean L, Mohammed LA, Abdeen A. **Nephroprotective effects of Acacia senegal against aflatoxicosis via targeting inflammatory and apoptotic signaling pathways.** *Ecotoxicology & Environmental Safety*. 2023 Jun 27;262:115194. doi: 10.1016/j.ecoenv.2023.115194. Epub ahead of print. PMID: 37385018.
- Ali FEM, Hassanein EHM, El-Bahrawy AH, Hemeda MS, **Atwa AM**. **Neuroprotective effect of lansoprazole against cisplatin-induced brain toxicity: Role of Nrf2/ARE and Akt/P53 signaling pathways.** *Journal of Chemical Neuroanatomy*. 2023 Jun 2;132:102299. doi: 10.1016/j.jchemneu.2023.102299. Epub ahead of print. PMID: 37271475.
- Didamoony MA, **Atwa AM**, Ahmed LA. **Modulatory effect of rupatadine on mesenchymal stem cell-derived exosomes in hepatic fibrosis in rats: A potential role for miR-200a.** *Life Sciences*. 2023 Jul 1;324:121710. doi: 10.1016/j.lfs.2023.121710. Epub 2023 Apr 19. PMID: 37084952.
- Abu-Elfotuh K, Abdel-Sattar SA, Abbas AN, Mahran YF, Alshanwani AR, Hamdan AME, **Atwa AM**, Reda E, Ahmed YM, Zaghlool SS, El-Din MN. **Corrigendum to "The protective effect of thymoquinone or/and thymol against monosodium glutamate induced attention-deficit/hyperactivity disorder (ADHD)-like behavior in rats: Modulation of Nrf2/HO-1, TLR4/NF- κ B/NLRP3/caspase-1 and Wnt/ β -Catenin signaling pathways in rat model" [Biomed. Pharmacother. 155 (2022) 113799].** *Biomedicine and Pharmacotherapy*. 2023 Jun; 162:114735. doi: 10.1016/j.biopha.2023.114735. Epub 2023 Apr 21. Erratum for: Biomedicine and Pharmacotherapy. 2022 Nov;155:113799. PMID: 37088669.
- Antar SA, Abd-El salam M, Abdo W, Abdeen A, Abdo M, Fericean L, Raslan NA, Ibrahim SF, Sharif AF, Elalfy A, Nasr HE, Zaid AB, Atia R, **Atwa AM**, Gebba MA, Alzokaky AA. **Modulatory Role of Autophagy in Metformin Therapeutic Activity toward Doxorubicin-Induced Nephrotoxicity.** *Toxics*. 2023 Mar 16;11(3):273. doi: 10.3390/toxics11030273. PMID: 36977038; PMCID: PMC10052439.
- Didamoony M.A., **Atwa A.M.** & Ahmed L.A. **A novel mechanistic approach for the anti-fibrotic potential of rupatadine in rat liver via amendment of PAF/NF- κ B p65/TGF- β 1 and hedgehog/HIF-1 α /VEGF trajectories.** *Inflammopharmacology*. 31, 845-858 (2023). <https://doi.org/10.1007/s10787-023-01147-7>.

PUBLICATIONS

- Hassanein EHM, Sayed GA, Alzoghaibi AM, Alammam AS, Abdel-Wahab BA, Abd ElGhafar OAM, Mahdi SE, **Atwa AM**, Alzoghaibi MA, Mahmoud AM. **Azithromycin Mitigates Cisplatin-Induced Lung Oxidative Stress, Inflammation and Necroptosis by Upregulating SIRT1, PPAR γ , and Nrf2/HO-1 Signaling.** *Pharmaceuticals*. 2023; 16(1):52. <https://doi.org/10.3390/ph16010052>.
- Ali FEM, Hassanein EHM, Abd El-Ghafar OAM, Rashwan EK, Saleh FM, **Atwa AM**. **Exploring the cardioprotective effects of canagliflozin against cisplatin-induced cardiotoxicity: Role of iNOS/NF- κ B, Nrf2, and Bax/cytochrome C/Bcl-2 signals.** *Journal of Biochemical and Molecular Toxicology*. 2023; e23309. <http://dx.doi.org/10.1002/jb.23309>
- Abu-Elfotuh K, Hamdan AME, Mohammed AA, **Atwa AM**, Kozman MR, Ibrahim AM, Motawea SM, Selim HMRM, Tohamy STK, Nour El-Din M, Zaghloul SS, Gowifel AMH, Awany MM. **Neuroprotective Effects of Some Nutraceuticals against Manganese-Induced Parkinson's Disease in Rats: Possible Modulatory Effects on TLR4/NLRP3/NF- κ B, GSK-3 β , Nrf2/HO-1, and Apoptotic Pathways.** *Pharmaceuticals*. 2022; 15(12):1554. <https://doi.org/10.3390/ph15121554>
- Hassanein EHM, Saleh FM, Ali FEM, Rashwan EK, **Atwa AM**, Abd El-Ghafar OAM. **Neuroprotective effect of canagliflozin against cisplatin-induced cerebral cortex injury is mediated by regulation of HO-1/PPAR- γ , SIRT1/FOXO-3, JNK/AP-1, TLR4/iNOS, and Ang II/Ang 1-7 signals.** *Immunopharmacology and Immunotoxicology*. 2022; 1-13. <https://doi.org/10.1080/08923973.2022.2143371>
- Hassanein EHM, Althagafy HS, **Atwa AM**, Kozman MR, Kotb El-Sayed MI, Soubh AA. **Taurine attenuated methotrexate-induced intestinal injury by regulating NF- κ B/iNOS and Keap1/Nrf2/HO-1 signals.** *Life Sciences*. 2022; 311(Pt A):121180. <https://doi.org/10.1016/j.lfs.2022.121180>
- Hassanein EHM, Ali FEM, Mohammedsaleh ZM, **Atwa AM**, Elfiky M. **The involvement of Nrf2/HO-1/cytoglobin and Ang-II/NF- κ B signals in the cardioprotective mechanism of lansoprazole against cisplatin-induced heart injury.** *Toxicology Mechanisms and Methods*. 2022; 1-11. <https://doi.org/10.1080/15376516.2022.2137870>
- Didamoony MA, **Atwa AM**, Abd El-Haleim EA, Ahmed LA. **Bromelain ameliorates Dgalactosamine-induced acute liver injury: role of SIRT1/LKB1/AMPK, GSK3 β /Nrf2 and NF- κ B p65/TNF- α /caspase-8, -9 signalling pathways.** *Journal of Pharmacy and Pharmacology*. 2022; 74(12):1765-1775. <https://doi.org/10.1093/jpp/rgac071>
- Abu-Elfotuh K, Abdel-Sattar SA, Abbas AN, Mahran YF, Alshanwani AR, Hamdan AME, **Atwa AM**, Reda E, Ahmed YM, Zaghloul SS, El-Din MN. . **The protective effect of thymoquinone or/and thymol against monosodium glutamate-induced attentiondeficit/hyperactivity disorder (ADHD)-like behavior in rats: Modulation of Nrf2/HO-1, TLR4/NF- κ B/NLRP3/caspase-1 and Wnt/ β -Catenin signaling pathways in rat model.** *Biomedicine and Pharmacotherapy*. 2022; 155:113799. <http://dx.doi.org/10.1016/j.biopha.2022.113799>
- Atwa AM**, Abd El-Ghafar OAM, Hassanein EHM, Mahdi SE, Sayed GA, Alruhaimi RS, Alqhtani HA, Alotaibi MF, Mahmoud AM. **Candesartan Attenuates Cisplatin-Induced Lung Injury by Modulating Oxidative Stress, Inflammation, and TLR-4/NF- κ B, JAK1/STAT3, and Nrf2/HO-1 Signaling.** *Pharmaceuticals*. 2022; 15(10):1222. <https://doi.org/10.3390/ph15101222>
- Bishr, Abeer and **Atwa AM** and El-Nagggar, Mostafa E. and El-Din, Mahmoud Nour, **Canagliflozin Promotes Mitochondrial Biogenesis in Glycerol-Induced Acute Kidney Injury by Activating the AMPK/SIRT1/FOXO-3a/ PGC-1 α and Nrf2/HO-1 Trajectories.** Available at SSRN: <https://ssrn.com/abstract=3974361> or <http://dx.doi.org/10.2139/ssrn.3974361>
- Atwa A**, Hegazy R, Shaffie N, Yassin N, Kenawy S. **Protective effects of vasodilatory β beta-blockers carvedilol and nebivolol against glycerol model of rhabdomyolysisinduced acute renal failure in rats.** *Open access Macedonian journal of medical sciences*. 2016 Sep 15; 4(3):329.
- Atwa A**, Hegazy R, Mohsen R, Yassin N, Kenawy S. **Protective effects of the third generation vasodilatory β beta-blocker nebivolol against D-galactosamine-induced hepatorenal syndrome in rats.** *Open access Macedonian journal of medical sciences*. 2017 Dec 15; 5(7):880.

AWARDS

2nd Best Poster Award – Arab International Pharmacy Conference 2021

- Received the 2nd best poster award at the Arab International Pharmacy Conference in 2021.

Certificate of Appreciation – Effective Teaching Approach

- Acknowledged for implementing innovative teaching methods resulting in the highest academic scores among faculty staff.

PROFESSIONAL AND TECHNICAL SKILLS

- Teaching and assisting in the delivery of academic education courses for undergraduates of bachelor degree, PharmD and Clinical PharmD programs. These courses include :

- ☐ Basic pharmacology
- ☐ Pharmacology 1
- ☐ Pharmacology 2
- ☐ Pharmacology 3
- ☐ Clinical Pharmacy and therapeutics
- ☐ Clinical Pharmacology
- ☐ Applied Therapeutics
- ☐ Biological screening & standardization of drugs
- ☐ Toxicology
- ☐ Drug poison
- ☐ Drug information and interactions
- ☐ Management of endocrine disorders
- ☐ Management of cardiovascular disorders
- ☐ Clinical Pharmacy II

- Good experience in the foundation of pharmacology laboratories.
- Participation in all academic fields in the department of Pharmacology and Toxicology and in the Faculty generally (academic advising, registration, quality control activities, supervision, book creator).
- 3 months experience as a clinical pharmacist at El-Salam hospital, Maadi.