



Mai Ibrahim Ibrahim Shahin

Assistant Professor of Pharmaceutical Chemistry
Faculty of Pharmacy, Ain Shams University
Cairo, Egypt

Personal Data:

Date of Birth : June 29, 1987
Place of birth : Cairo, Egypt
E-mail : maishahin@pharma.asu.edu.eg/
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Undergraduate Education:

Bachelor Degree : B. Sc., Pharmaceutical Sciences, May 2009,
Grade: Excellent with honor (92.5%), General
Position 8th. Faculty of Pharmacy, Ain Shams
University.

Graduate Education:

Master Degree : M. Sc., Pharmaceutical Sciences (Pharmaceutical
Chemistry), 2013, Faculty of Pharmacy, Ain Shams
University. Title of Thesis: *"Molecular Design and
Synthesis of Certain Quinoxaline Derivatives with
Potential Anticancer Activity"*.

PhD Degree : PhD, Pharmaceutical Sciences, (Pharmaceutical Chemistry), 2018, Faculty of Pharmacy, Ain Shams University. Title of Thesis: *"Molecular Design and Synthesis of Heterocyclic Compounds with Potential Biological activity"*
A member of 2-years mission from 2015 to 2017, Medicinal Chemistry Department, University of Michigan.

Positions Held:

Demonstrator : 2010 – 2013 at Pharmaceutical Chemistry Department, Faculty of Pharmacy, Ain shams University.

Assistant Lecturer : 2013- 2018 at Pharmaceutical Chemistry Department, Faculty of Pharmacy, Ain shams University.

Assistant Professor: Since 2019 at Pharmaceutical Chemistry Department, Faculty of Pharmacy, Ain shams University

Professional and Scientific Experiences:

1) Teaching Experience:

- Taught organic chemistry, pharmaceutical chemistry and drug design practical sessions for undergraduate and postgraduate students at Faculty of Pharmacy, Ain Shams University.
- Participated also in organizing and planning the practical exams.

- Lectured Organic chemistry and Medicinal Chemistry for undergraduate pharmacy students (Bachelor, Drug design program, PharmD and PharmD clinical programs) at Faculty of Pharmacy, Ain Shams University.
- Lectured advanced organic chemistry for postgraduate students.
- Examiner of organic and pharmaceutical chemistry at Ain Shams University

2) Examination Control:

- A member in First level examination control at Faculty of Pharmacy- Ain Shams University since 2019
- A member in Cumulative control at Faculty of Pharmacy- Ain Shams University from 2019-2021

3) Training Courses: •

- 2010-2013: attended six courses for the development of capabilities of Ain Shams University staff members and leadership personnel.
- 20 March 2012: attended and participated in the symposium titled “New Trends in Organic Chemistry, Research Overview” held in National Research Centre, Giza, Egypt.
- 2007: Attended and participated in a course for First Aid training at Cairo University.
- 1999-2004: English courses at British Council.
- 2008: Attended communication skills sessions at Cairo University.
- 2019: Promote your research capabilities
- 2020: Training on how to use MOODLE

- 2021: Workshop on how to set MCQ exams
- 2022: Assessment in Pharmacy Education: A comprehensive series of four workshops focusing on assessment skills to foster the application of best practices and implement standards aligned with international accreditation (Delivered from 11th August till 28th August 2022)
- 2023: Workshop on Qorrect
- 2023: Workshop on “Applications of artificial intelligence and Molecular Dynamics in drug discovery.”
- 2023: Workshop on “Povarov reaction: the good, the bad and the ugly.”
- 2023 : Workshop on “Progress of heterocycles in medicinal Chemistry Program”
- 2023-2024: attended six courses for the development of capabilities of Ain Shams University staff members and leadership personnel.

4) Conferences:

- Beyond Sciences Initiative 8th International Remote Conference Science & Society, February 2023
- The 11TH Annual AIN SHAMS University international conference, 2023.
- 3rd International Conference of the Faculty of Pharmacy Ain Shams University, 2023

5) Quality Assurance:

- Quality assurance coordinator 2017-2021
- One of the team members responsible for applying to Excellence award from 2020-2024

- Head of educational standard team from 2020-2024.
- Department representative of quality assurance from 2018-2021
- Department representative for assessment unit 2022
- Member of the ACPE team in the faculty 2022-2023.

6) Department representative and member in the assessment unit in the faculty.

7) Part time in faculty of pharmacy 6th October University academic year 2020-2021

Research Interests:

- Research interests involve Drug Design, Molecular Modeling, Organic and Medicinal Chemistry

Thesis and other supervision:

11 Master and 3 PhD theses ongoing.

2 completed PhD thesis.

2 Graduation projects entitled:

2019-2020: An overview of the different antimicrobials targeting MRSA and their mechanism of action.

2021-2022: Minneola tangelo Essential oil: A weapon against multidrug resistant pathogens (Won best poster award).

Publications: (H index = 4)

1. **Mai I. Shahin**, Dalal A. Abou El Ella, Nasser S. M. Ismail, Khaled A. M. Abouzid, Design, synthesis and biological evaluation of type-II VEGFR-2 inhibitors based on quinoxaline scaffold. *Bioorganic Chemistry* 2014, 56, 16-26.

2. **Mai I. Shahin**, Joyeeta Roy, Maha Hanafi, Dongyao Wang, Urarika Luesakul, Yifeng Chai, Nongnuj Muangsin, Deena S. Lasheen, Dalal A. Abou El Ella, Khaled A. Abouzid, Nouri Neamati, Synthesis and biological evaluation of novel 2-oxo-1,2-dihydroquinoline-4-carboxamide derivatives for the treatment of esophageal squamous cell carcinoma. *European Journal of Medicinal Chemistry* 2018, 155, 516-530.
3. **Mai I. Shahin**, Asmaa I. AbdAlhafiz, Khaled A. M. Abouzid, Wesam E. Mehanna, Synthesis, Biological Evaluation and In-silico ADME Study of Novel Hybridized Benzimidazole-Chalcone Compounds with Potential Antimicrobial Activity. *Archives of Pharmaceutical Sciences Ain Shams University* 2022, 6 (1), 29-36.
4. Ahmed M.M. Shaker, **Mai I. Shahin**, Asmaa M. AboulMagd, Seham A. Abdel Aleem, Hamdy M. Abdel-Rahman, Dalal A. Abou El Ella, Novel 1,3-diaryl pyrazole derivatives bearing methylsulfonyl moiety: Design, synthesis, molecular docking and dynamics, with dual activities as anti-inflammatory and anticancer agents through selectively targeting COX-2. *Bioorganic Chemistry* 2022, 129, 106143.
5. Ahmed E. Elsayi, **Mai I. Shahin**, Hager A. Elbendary., Tarfah Al-Warhi, Fatma E. Hassan, Wagdy M. Eldehna, 1,2,4-Triazole-Tethered Indolinones as New Cancer-Fighting Small Molecules Targeting VEGFR-2: Synthesis, Biological Evaluations and Molecular Docking. *Pharmaceuticals* 2024, 17 (1), 81.
6. Sama W. A, Helmy, **Mai I. Shahin**, Nermin Samir, Deena S. Lasheen, Dalal A. Abou El Ella, Targeting apoptosis; design, synthesis and biological evaluation of new benzoxazole and thiazole based derivatives. *BMC Chemistry* 2024, 18 (1), 1.
7. Tarfah Al-Warhi, Nermeen M. Rashad, Hadia Almahli, Marwa M. Abdel - Aziz; Zainab M. Elsayed, **Mai I. Shahin**, Wagdy M. Eldehna, Design and synthesis of benzo[*b*]thiophene-based hybrids as novel antitubercular

agents against MDR/XDR Mycobacterium tuberculosis. *Archiv der Pharmazie (Weinheim)* 2024, 357 (2), e2300529.

8. Wagdy M. Eldehna, Sally Tarek Mahmoud, Esraa R. Elshnawey, Zainab M. Elsayed, Taghreed A. Majrashi, Mohamed K. El-Ashrey, Mahmoud Rashed, Loah R. Hemedda, Aly A. Shoun, Eslam B. Elkaeed, Mahmoud A. El Hassab, Marwa M. Abdel-Aziz, **Mai I. Shahin**, Novel indolinone-tethered benzothiophenes as anti-tubercular agents against MDR/XDR M. tuberculosis: Design, synthesis, biological evaluation and in vivo pharmacokinetic study. *Bioorganic Chemistry* 2024, 143, 107009.
9. Ahmed M.M. Shaker, **Mai I. Shahin**, Asmaa M. AboulMagd, Hamdy M. Abdel-Rahman, Dalal A. Abou El Ella, Design, synthesis, and molecular docking of novel 1,3, 4-triaryl pyrazole derivatives bearing methylsulfonyl moiety with anticancer activity through dual targeting CDK2 and COX-2 enzymes. *Journal of Molecular Structure* 2024, 1301, 137323.
10. Sama W.A. Helmy, Amal Kamal Abdel-Aziz, Eman M.E. Dokla, Tarek E. Ahmed, Yasmin Hatem, Engy A. Abdel Rahman, Marwa Sharaky, **Mai I. Shahin**, Eman Z. Elrazaz, Rabah A.T. Serya, Maged Henary, Sameh S. Ali, Dalal A. Abou El Ella, Novel sulfonamide-indolinone hybrids targeting mitochondrial respiration of breast cancer cells. *European Journal of Medicinal Chemistry* 2024, 268, 116255.
11. Maiy Y. Jaballah, Nooran S. Elleboudy, Marwa Sharaky, Khaled A. M. Abouzid, **Mai I. Shahin**, Design, synthesis and biological evaluation of novel pyrazole-based compounds as potential chemotherapeutic agents. *Future Medicinal Chemistry* 2024, 16(13):1299-1311.

12. Mariam I. Gamal El-Din, Eman M. Mantawy, Riham S. Said, Nouran M. Fahmy, Shaimaa Fayez, **Mai I. Shahin**, Maha Nasr, Ahmed M. Elissawy, Abdel Nasser B. Singab, Hibiscus schizopetalus boosts wound healing via restoring redox balance and hindering inflammatory responses in rats: Insights on metabolome profiling and molecular docking. *Archiv der Pharmazie* 2024, e2400392.
13. Mohamed K. S. El-Nagar, **Mai I. Shahin**, Mohammed F. El-Behairy, Ehab S. Taher, Mohamed F. El-Badawy, Marwa Sharaky, Dalal A. Abou El Ella, Khaled A. M. Abouzid, Mai Adel, Pyridazinone-based derivatives as anticancer agents endowed with anti-microbial activity: molecular design, synthesis, and biological investigation, *RSC Med Chem.* 2024, 15(10):3529–57.
14. Wagdy M. Eldehna, Maha-Hamad Abdulla, Mohamed S. Nafie, Ahmed E. Elsayi, Salsabil Ayman, **Mai I. Shahin**, Noura S. Alhassan, Ahmad M. Zubaidi, Hazem A. Ghabbour, Mahmoud Elaasser, Ahmed A. Al-Karmalawy, Hatem A. Abdel-Aziz, Unveiling the anticancer potential of novel spirooxindole-tethered pyrazolopyridine derivatives, *Bioorganic Chemistry* 2024, 153, 107778.

Technical Skills:

Language Skills :

- Arabic (*native*)
- English (*excellent, both written and spoken*)

Computer Skills :

- Very Familiar with Windows® operating system.
- Excellent experience with Microsoft® Word, Excel, PowerPoint.
- Experience in designing appealing presentations and seminars.

Skills in Field of Specialization :

- Fifteen years experience with software used in Drug Design (Teaching and Research), specifically Discovery Studio®2.5 (Accelrys Corporation, San Diego) and Field Align 2.1
- Worked on different instruments including Shimadzu LC/MS, Shimadzu HPLC, Isolera flash chromatography from Biotage, and Bruker NMR.
- Experienced with different and versatile chemistry and molecular modeling softwares (especially ChemOffice package).

Personal Skills:

- Ability to cooperate effectively with colleagues and to work as part of a team
- Commitment to working critically at the interface between research, theory and practice.

Hobbies:

- Charity
- Reading
- Swimming
- Music listening
- Travelling
- Sports (Karate, Volleyball, Basketball, Badminton and Squash)

References:

- **Prof. Dr. Khaled Abouzeid Mohamed, PhD**

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Faculty of Pharmacy, Ain Shams University
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- **Prof. Dr. Dalal Abd El Rahman Abou El Ella, PhD**

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Faculty of Pharmacy, Ain Shams University
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- **Prof. Dr. Nouri Neamati, PhD**

John G. Searle Professor of Medicinal Chemistry
Medicinal Chemistry, University of Michigan

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