

Fathalla Abdelazim Ibrahim Khedr

Associate Professor of medicinal chemistry and drug design

My Contact

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Personal Information

- Nationality: Egyptian
- Date of Birth: February 3, 1985
- Marital Status: Married
- Place of Birth: Minufia, Egypt
- Gender: Male

EDUCATION

Doctorate Degree (PhD), Faculty of Pharmacy, Al-Azhar University
December 2018

Major: Medicinal Chemistry and Drug Design

Dissertation: Design and synthesis of some new phthalazine derivatives as anti-cancer agents.

About Me

I am a dedicated and ambitious individual with a drive to excel and make a difference in my professional endeavors. My energetic, patient, and passionate nature allows me to easily integrate with diverse groups, facilitating seamless interaction and collaboration in any workplace.

PROFESSIONAL CAREER

Associate Professor of Medicinal Chemistry and Drug Design Department, Faculty of Pharmacy, Al-Azhar University — **May 2025- Present**

Assistant Professor of Medicinal Chemistry and Drug Design Department, Faculty of Pharmacy, Al-Azhar University — **Feb 2019 – April 2025**

- Developed curricula and delivered course material.
- Conducted research, fieldwork, and investigations, and authored reports.
- Published research, attended conferences, delivered presentations, and networked within the field.
- Participated in learning opportunities at other universities to gain experience.
- Participated in committee, departmental, and faculty meetings.

Assistant Professor of Medicinal Chemistry and Drug Design Department, Faculty of Pharmacy, Egyptian Russian University — **Oct 2019 – May 2022**

- Provided training and mentoring to teaching assistants and junior lecturers.
- Reviewed teaching methods and materials, recommending improvements.
- Assisted with student recruitment, interviews, and academic counseling.

Contributed to a growth-promoting environment that values equality and freedom of speech.

Master's Degree (MSc), Faculty of Pharmacy, Al-Azhar University
April 2016

Major: Medicinal Chemistry and Drug Design
Dissertation: Synthesis of phthalic anhydride derivatives for biological activity.

Bachelor's Degree (BSc), Faculty of Pharmacy, Al-Azhar University
May 2009

Major: Pharmaceutical Sciences
Grade: Excellent with Honor

Skills

- Administrative
- Communication
- Decision Making
- Time Management
- Organizational

Interpersonal Skills

- Administrative Skills
- Critical Thinking Skills
- Time Management Skills
- Creative Thinking Skills
- Decision Making Skills
- Organizational Skills

Key Skills and Competencies

- Ability to analyze information and communicate effectively.
- Experience in statistical analysis.
- Strong written and verbal communication skills.
- Ability to manage competing priorities.
- Extensive knowledge of web-based proprietary databases and library resources.

WORK EXPERIENCE

Assistant lecturer of medicinal chemistry and drug design, Faculty of Pharmacy, Al-Azhar University **Aug 2016_ Feb 2019**

- Assisted in classroom management and pupil instruction.
- Provided one-to-one assistance and general support for pupils.
- Assisted with the preparation of a conducive learning environment.
- Prepared class registers and maintained accurate pupil records.
- Delivered educational programs and assessed their impact.

Instructor of medicinal chemistry and drug design **Mar 2012_ Aug 2016**
Faculty of Pharmacy, Al-Azhar University

- Mentored junior team members.
- Liaised with suppliers and stakeholders for information gathering.
- Identified efficiency improvements within data.
- Ensured data security and created visual data presentations for senior managers.

ACADEMIC EXPERIENCE

Extensive experience in teaching Medicinal Chemistry and drug design courses at Al-Azhar University and Egyptian Russian University, including:

- Medicinal Chemistry I, II, and III
- Organic Chemistry I, II, and III
- Drug Design
- Computational Chemistry.

Member of the strategic plan committee, Faculty of Pharmacy, Al-Azhar University (2017-2022).

Member of the quality assurance unit, Faculty of Pharmacy, Al-Azhar University (January 2015 – Present).

RESEARCH EXPERIENCE

Research Interests:

- Design and synthesis of novel compounds as vascular endothelial growth factor receptor 2 inhibitors.
- Design and synthesis of novel compounds as antidiabetic agents.
- Development and optimization of techniques and algorithms for protein-ligand binding, docking, molecular modeling, and pharmacophore elucidation.

- Researching potential target organizations and individuals for research contact.
- Ability to cope with pressure and meet deadlines.
- Proven proficiency in the Microsoft Office XP suite, particularly Outlook & Excel.
- Able to work autonomously, under my initiative, and under pressure.
- Good communication skills and the ability to interface with staff at all levels and external clients.

Areas of Expertise

- Student Relations
- Health Promotion
- Administration
- Report Writing
- Budgetary Control

Conferences

- Organizing and participating in Al-Azhar 5th International Conference of Pharmaceutical Sciences and Drug Industries, Hurghada, Egypt
  September 2017
- Attending the 2nd International Conference of Faculty of Pharmacy, Deraya University, Minya, Egypt
  November 2018

Publications / Citations Data

- 14 Articles in peer-reviewed journals.
- h-index: 10 with a total of 356 citations

Research Skills and Abilities:

- Proficient in software for docking, molecular modeling, and visualization: HyperChem, Gaussian, Avogadro, ChemSketch, ChemDraw, MOE.
- Skilled in analytical techniques: GC-MS, HPLC, CE, UV-VIS, Spectrofluorimetry.
- Experienced with UPLC-MS, GC-MS, and NMR software: Bruker Compass DataAnalysis, Agilent MassHunter, Thermo Xcalibur, MZmine 2, AMDIS, MET-IDEA, MS-Dial, ACD/spec manager, Mnova.
- Proficient in statistical analysis and data visualization: Simca-P, OriginPro, Design-Expert, Matlab, R.

OTHER SKILLS AND ABILITIES

- Proficiency in MS Office programs.
- Experience in leading experimental exercises and teaching.
- Strong research and organizational skills.
- Expertise in professional scientific paper preparation and writing.
- Effective communication and teamwork abilities.
- Strong organizational and managerial skills, including leading and coordinating meetings and congresses.

LIST OF PUBLICATIONS

- Mohamed, A. A., El-Hddad, S. S. A., Aljohani, A. K. B., **Khedr, F.**, Alatawi, O. M., Keshek, D. E., Ahmed, S., Alsulaimany, M., Almadani, S. A., El-Adl, K., Hanafy, N. S. (2024). Iodoquinazoline-derived VEGFR-2 and EGFR-T790M dual inhibitors: Design, synthesis, molecular docking, and anticancer evaluations. Bioorganic Chemistry, 143, 107062.
- Anwer, K. E., El-Hddad, S. S. A., Abd El-Sattar, N. E. A., El-mousy, A., **Khedr, F.**, Mohamady, S., Keshek, D., Salama, S. A., El-Adl, K., Hanafy, N. S. (2023). Five and six-membered heterocyclic rings endowed with azobenzene as dual EGFR-T790M and VEGFR-2 inhibitors: Design, synthesis, in silico ADMET profile, molecular docking, dynamic simulation, and anticancer evaluations. RSC Advances, 13, 35321–35338.
- Abdelgawad, M. A., El-Adl, K., El-Hddad, S. S. A., Elhady, M. M., Saleh, N. M., Khalifa, M. M., **Khedr, F.**, Alswah, M., Nayl, A. A., Ghoneim, M. M., Abd El-Sattar, N. E. A. (2022). Design, molecular docking, synthesis, anticancer and anti-hyperglycemic assessments of thiazolidine-2,4-diones bearing sulfonylthiourea moieties as potent VEGFR-2 inhibitors and PPARγ agonists. Pharmaceuticals, 15, 226.
- El-Adl, K., Ibrahim, M. K., **Khedr, F.**, Abulkhair, H. S., Eissa, I. H. (2021). Design, synthesis, docking, and anticancer evaluations of phthalazines as VEGFR-2 inhibitors. Archiv der Pharmazie, e2100278.

- **Khedr, F.**, Ibrahim, M. K., Eissa, I. H., Abulkhair, H. S., El-Adl, K. (2021). Phthalazine-based VEGFR-2 inhibitors: Rationale, design, synthesis, in silico, ADMET profile, docking, and anticancer evaluations. Archiv der Pharmazie, e2100201.
- El-Adl, K., Ibrahim, M. K., **Khedr, F.**, Abulkhair, H. S., Eissa, I. (2020). N-Substituted-4-phenylphthalazin-1-amine-derived VEGFR-2 inhibitors: Design, synthesis, molecular docking, and anticancer evaluation studies. Archiv der Pharmazie, e2000219.
- El-Adl, K., Ibrahim, M. K., **Khedr, F.** (2019). Design, synthesis, in vitro anti-cancer activity, ADMET profile and molecular docking of novel triazolo[3,4-a] phthalazine derivatives targeting VEGFR-2 enzyme.
- El-Helby, A. A., Ayyad, R. R. A., Sakr, H., El-Adl, K., Ali, M. M., **Khedr, F.** (2017). Design, synthesis, molecular docking, and anticancer activity of phthalazine derivatives as VEGFR-2 inhibitors. Archiv der Pharmazie - Chemistry in Life Sciences, 350, e1700240.

. Bayoumi, H.H, Ibrahim, M.-K. Dahab, M.A. **Khedr, F.** El-Adl, K.(2024). Exploration of the VEGFR-2 inhibition activity of phthalazine derivatives: design, synthesis, cytotoxicity, ADMET, molecular docking and dynamic simulation. RSC Advances, 14, 21668–21681**.**

. Bayoumi, H.H, Ibrahim, M.-K. Dahab, M.A. **Khedr, F.** El-Adl, K. (2024). Exploration of the VEGFR-2 inhibition activity of phthalazine derivatives: design, synthesis, cytotoxicity, ADMET, molecular docking and dynamic simulation, RSC Advances, 14, 27110–27121**.**

. Hatem Hussein Bayoumi, Mohamed-Kamal Ibrahim, Mohammed A. Dahab, **Fathalla Khedr** and Khaled El-Adl, (2025), Phthalazine derivatives as VEGFR-2 inhibitors: Docking, ADMET, Synthesis, Design, Anticancer Evaluation and Apoptotic Inducers, Drug Development Research, 1-14.

Referees Contact Details

- **Prof. Mohamed Ayman Ali El-Zahaby,**
- Professor of Medicinal Chemistry and Drug Design, Al-Azhar University
- **Email**: malzahaby@azhar.edu.eg

- **Prof. Khaled El-Adl,**
- **Professor of Medicinal Chemistry, Al-Azhar University**
- **Email:** KhaledEladl@azhar.edu.eg