Deena Samy Lasheen

Professor of Pharmaceutical Chemistry,
Faculty of Pharmacy, Ain Shams University,
Director of Postgraduate Programs Development Central Unit,
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Contact Information

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Personal Information

Date of Birth: March 18th, 1978

Place of Birth: Cairo, Egypt

Nationality: Egyptian

Marital Status: Widow

Education

PhD in Pharmaceutical Chemistry, Ain Shams University, July 2011.

- **Member of Educational Mission to:** Department of Pharmacy & Pharmacology, University of Bath, Bath UK (2008- 2009)
- **Title of thesis:** Computer-Based Drug Design and Synthesis of Amino Acid-Containing Compounds with Potential Anti-HCV Activity.
- **As a part of the PhD degree:** submitted a scientific research proposal, titled: *Design, Synthesis and Evaluation of Novel Peptidomimetic Inhibitors with Potential Anti-HCV Activity*, **Grade:** Excellent

MSc in Pharmaceutical Chemistry, Ain Shams University, September 2005.

- **Title of thesis:** Synthesis of various imidazoline derivatives having potential biological activity.

BSc in Pharmaceutical Sciences, Ain Shams University, May 2000,

- **Grade:** Excellent with honor.

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Professional Experience:

7/2022 – to present: Professor at Pharmaceutical Chemistry Department, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.

7/ 2021 – to present: Director of Postgraduate Programs Development Central Unit, Ain Shams University, Cairo, Egypt.

As a part of Education Strategy Administration, Ain Shams University, the Postgraduate Programs Development Central Unit is responsible for supporting colleges to upgrade and develop postgraduate programs by implementing innovative and educationally effective techniques, activating the role of e-learning management systems and continuous evaluation and assessment methods in postgraduate programs.

5/2017 – 7/2022: Associate Professor at Pharmaceutical Chemistry Department, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.

3/2021 – 7/2021: As a part timer staff member, lecturing Organic Chemistry, at Faculty of Pharmacy, Egyptian Chinese University, Cairo, Egypt.

3/2021 – 7/2021: As a part timer staff member, lecturing Pharmaceutical Chemistry, at Faculty of Pharmacy, British University in Egypt (BUE), Cairo, Egypt.

10/2020 – 2/2021: As a part timer staff member, lecturing Organic Chemistry, at Faculty of Pharmacy, Ahram Canadian University, 6th of October, Egypt.

2019: Participated as a member of the Committee responsible for implementing and revising Pharm D and Pharm D "Clinical" Bylaws at Faculty of Pharmacy, Ain Shams University.

7/2011 – 6/2017: Lecturer at Pharmaceutical Chemistry Department, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.

Job responsibilities include teaching Organic Chemistry, Pharmaceutical Chemistry, and Drug Design to undergraduate and postgraduate students in addition to participating in planning and supervision on practical experimental sessions.

2/2011 – 6/2011: As a part timer, Lecturing "Pharmacy Regulations and Ethics" at Faculty of Pharmacy, MIU University, Cairo, Egypt.

9/2005 – 7/2011: Assistant Lecturer at Pharmaceutical Chemistry Department Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.

8/2008 – 12/2010: Member of Educational mission and Visiting PhD researcher, Department of Pharmacy and Pharmacology, University of Bath, Bath, UK.

Under supervision of Dr. Andrew G. Watts, performing the practical part of the PhD.

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10/2000 - 9/2005: Demonstrator at Pharmaceutical Chemistry Department, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.

Job responsibilities included demonstrating experimental practical sessions to undergraduate students

Teaching Experience:

- Demonstrated Organic Chemistry, Pharmaceutical Chemistry and Drug Design practical sessions to undergraduate Pharmacy students at Ain Shams University, also participated in organizing and planning practical exams.
- Lectured Organic Chemistry, Spectroscopy, Pharmaceutical Chemistry and Drug Design to undergraduate and postgraduate Pharmacy students.
- Participated in oral exams in Organic and Pharmaceutical Chemistry, at the Faculties of Pharmacy, in several Governmental and Private Universities.
- As a part timer, Lecturing "Pharmacy Regulations and Ethics" at Faculty of Pharmacy, MIU University.

Computer Skills in field of Specification

- Long experience with pharmacophore design, Docking programs, Denovo Design, QSAR models using Accelrys' Discovery Studio 2.5, Accelrys Corporation, San Diego.

Activities in field of Quality Assurance Management

- Member of quality assurance team since 2011 -2021.

Reviewer

2019- to present: Peer reviewer in several national and international journals including RSC Advances (Royal Society of Chemistry) and Archives of Pharmaceutical Sciences (Ain Shams University).

2018 – to present: Project reviewer and evaluator and member of examination committee at STDF and Egyptian Mission Programs.

- Participating in technical evaluation of scientific research proposals and examination of Egyptian research applicants.

Training Courses and Workshops

- **Participated in 4th Computer-Assisted Drug Design Workshop (4th CADD-W), entitled*; "Diving into Molecular Dynamics & Horizons in Molecular Docking"*** Kafrelsheikh University, 6-7th December 2021.

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- Actively participated and completed training program **"Teaching Excellence in Pharmaceutical Education"; organized by Accreditation Council for Pharmacy Education, (ACPE),** USA, April – November 2020.
- Participated in Lectures and Practical Training for Students and Staff Members in **Computer-aided Drug Design workshops organized by Pharmaceutical Chemistry Department, Faculty of Pharmacy, Ain Shams University**, May 2015, May 2016 and July 2017.
- Starting from 2011, attended ten courses for the development of capabilities of Ain Shams University staff members and leadership personnel.

Research Interests

- Molecular Modeling and computer-based design of new chemical entities by applying compare fit or docking studies. This technique could help in predicting and explaining the biologically active HIT molecules.
- Synthetic Pharmaceutical Chemistry, to construct and build the designed molecules through retro- synthetic approaches. The synthesized molecules involved various potentially active heterocyclic rings. Also, synthetic strategies involved the incorporation of various side chains having specific pharmacophoric properties to conserve a specified binding affinity to the drug targets and hence increase the potency of the designed new chemical entities.
- Biological Evaluation of the synthesized hit molecules either in vitro or in vivo, by establishing a cooperation with other disciplines as pharmacology, virology, anticancer, enzyme inhibition assays, cell cycle analysis, or other research teamwork.

Thesis Supervision:

13 Master theses and 9 PhD: *Finished*

7 Master theses and 7 PhD: *Ongoing*

Projects:

Center of Scientific Excellence- STDF-Funded Project (STDF-CSE) ***"Center for Drug Discovery and Development Research"*** **entitled:** ***"Molecular targeting of cancer with potential drug candidates"*** 3-year project, since 10/2013, *finished.*

Conferences:

- **The 2nd International Conference of Faculty of Pharmacy, Ain Shams University (ICPASU),** 13-15th November 2018. Entitled; *Future Trends in the Development of Pharmaceutical Education and Research.*

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- **The 9th Breast-Gynecological & Immunooncology International Cancer conference (BGICC),** Fairmont Towers Hotel, Cairo, Egypt, 19, 20 January 2017. (Oral Presentation *entitled: Discovery of Potent VEGFR-2 Inhibitors as Anti-angiogenic Anticancer agents*).
- **The 17th Scientific Congress Of the Associations of College of Pharmacy in the Arab World, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt,** 14-16 October 2014.
- **Humboldt Kolleg "Pharmaceutical and Biotechnological Therapies"** German University in Cairo; Egypt, 29th September – 1st October 2012.
- **Bristol Synthesis meeting,** 2009, Bristol, UK, March 2009.

Scientific Online Profile:

https://www.scopus.com/authid/detail.uri?authorId=56140094500

https://orcid.org/0000-0001-7698-9757

https://scholar.google.com/citations?user=PDa_XlwAAAAJ&hl=en&oi=ao

Publications:

1. Abeer HA Abdelhafiz, Rabah AT Serya, **Deena S. Lasheen**, Nessa Wang, Mansour Sobeh, Michael Wink, Khaled AM Abouzid, *Molecular design, synthesis and biological evaluation of novel 1,2,5-trisubstituted benzimidazole derivatives as cytotoxic agents endowed with ABCB1 inhibitory action to overcome multidrug resistance in cancer cells*, **Journal of Enzyme Inhibition and Medicinal Chemistry,** (2022)**, 37**, *2710-2724.*

2. Mai A. Mansour, Mamdouh A. Oraby, Zeinab A. Muhammad, **Deena S. Lasheen**, Hatem M. Gaber and Khaled A. M. Abouzid, *Identification of novel furo[2,3-d]pyrimidine based chalcones as potent anti-breast cancer agents: synthesis, in vitro and in vivo biological evaluation,* **RSC Advances,** (2022), **12**, *8193-8201***.**

3. Fatma M. Elmenier, **Deena S. Lasheen**, Khaled A. M. Abouzid, *Design, synthesis, and biological evaluation of new thieno[2,3-d] pyrimidines derivatives as targeted therapy for PI3K with molecular modelling study,* **Journal of Enzyme Inhibition and Medicinal Chemistry,** (2022)**, 37**, *315–332.*

4. Assem H. Eldeeb, Mahmoud F. Abo-Ashour, Andrea Angeli, Alessandro Bonardi, **Deena S. Lasheen**, Eman Z. Elrazaz, Alessio Nocentini, Paola Gratteri, Hatem A. Abdel-Aziz, Claudiu T. Supuran, *Novel benzene-sulfonamides aryl and arylsulfone conjugates adopting tail/dual tail approaches: Synthesis, carbonic anhydrase inhibitory activity and molecular modeling studies,* **European Journal of Medicinal Chemistry,** (2021), **221**, *11486.*

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5. Soha R. Abd El Hadi, **Deena S. Lasheen**, Dalia H. Soliman, Eman Z. Elrazaz, Khaled A.M. Abouzid**,** *Scaffold hopping and redesign approaches for quinazoline based urea derivatives as potent VEGFR-2 inhibitors*, **Bioorganic Chemistry**, (2020), **101**, *103961*.

6. Mai A. Mansour, **Deena S. Lasheen**, Hatem M. Gaber, Khaled A.M. Abouzid**,** *Elaborating piperazinyl-furopyrimidine based scaffolds as phosphoinositol-3-kinase enzyme alpha (PI3Kα) inhibitors to combat pancreatic cancer*, **RSC Advances,** (2020), **10**, *32103-32112***.**

7. Fatma M Elmenier, **Deena S. Lasheen**, Khaled AM Abouzid, *Phosphatidylinositol 3 kinase (PI3K) inhibitors as new weapon to combat cancer*, **European Journal of Medicinal Chemistry,** (2019), **183,** *111718***.**

8. Salwa Elmeligie, Asmaa M. Aboul-Magd, **Deena S. Lasheen**, Tamer M. Ibrahim, Tamer M. Abdelghany, Sohair M. Khojah, Khaled A.M. Abouzid, *Design and synthesis of phthalazine-based compounds as potent anticancer agents with potential antiangiogenic activity via VEGFR-2 inhibition*, **Journal of Enzyme Inhibition and Medicinal Chemistry,** (2019)**, 34**, *1347-1367.*

9. Mahitab K. Sobhy, Samar Mowafy, **Deena S. Lasheen**, Nahla A. Farag, Khaled A. M. Abouzid. *3D-QSAR pharmacophore modelling, virtual screening and docking studies for lead discovery of a novel scaffold for VEGFR 2 inhibitors: Design, synthesis and biological evaluation***, Bioorganic Chemistry**, (2019), **89**, *102988.*

10. Mai Adel, Rabah A.T. Serya, **Deena S. Lasheen**, Khaled A.M. Abouzid, *Identification of new pyrrolo[2,3-d]pyrimidines as potent VEGFR-2 tyrosine kinase inhibitors: Design, synthesis, biological evaluation and molecular Modeling*, **Bioorganic Chemistry**, (2018), **81**, *612-629.*

11. 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.*

12. Heba M Hesham, **Deena S. Lasheen**, Khaled AM Abouzid, *Chimeric HDAC inhibitors: Comprehensive review on the HDAC-based strategies developed to combat cancer*, **Medicinal Research Reviews,** (2018), **38**, *2058-2109.*

13. Sandra N Milik, Amal Kamal Abdel-Aziz, **Deena S. Lasheen**, Rabah AT Serya, Saverio Minucci, Khaled AM Abouzid, *Surmounting the resistance against EGFR inhibitors through the development of thieno[2,3-d]pyrimidine-based dual EGFR/HER2 inhibitors*, **European Journal of Medicinal Chemistry,** (2018), **155**, *316-336.*

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14. Menna A Ewida, Dalal A Abou El Ella, **Deena S Lasheen**, Heba A Ewida, Yomna I El-Gazzar, Hussein I El-Subbagh, *Imidazo[2',1':2,3]thiazolo[4,5*-d*]pyridazinone as a new scaffold of DHFR inhibitors: Synthesis, biological evaluation and molecular modeling study,* **Bioorganic Chemistry**, (2018), **80,** *11-23.*

15. Iten M Fawzy, Khairia M Youssef, **Deena S Lasheen**, Nasser SM Ismail, Khaled AM Abouzid, *Design, synthesis and 3D QSAR based pharmacophore study of novel imatinib analogs as antitumor-apoptotic agents***, Future Medicinal Chemistry,** (2018), **10**, *1421-1433.*

16. Monia Hossam, **Deena S. Lasheen**, Nasser SM Ismail, Ahmed Esmat, Ahmed M Mansour, Abdel Nasser B Singab, Khaled AM Abouzid, *Discovery of anilino-furo [2, 3-d] pyrimidine derivatives as dual inhibitors of EGFR/HER2 tyrosine kinase and their anticancer activity,* **European Journal of Medicinal Chemistry,** (2018), **144,** *330-348.*

17. Mai Adel, Rabah AT Serya, **Deena S. Lasheen,** Khaled AM Abouzid, *Pyrrolopyrimidine, A Multifaceted Scaffold in Cancer Targeted Therapy*, **Drug Research**, (2018), *485-498.*

18. Menna A. Ewida, Dalal A. Abou El Ella, **Deena S. Lasheen**, Heba A. Ewida, Yomna I. El-Gazzar, Hussein I. El-Subbagh, *Thiazolo[4,5-d]pyridazine analogues as a new class of dihydrofolate reductase (DHFR) inhibitors: Synthesis, biological evaluation and molecular modeling study*, **Bioorganic Chemistry**, (2017), **74,** *228–237.*

19. Sandra N Milik, **Deena S. Lasheen**, Rabah AT Serya, Khaled AM Abouzid, *How to train your inhibitor: Design strategies to overcome resistance to Epidermal Growth Factor Receptor inhibitors*, **European Journal of Medicinal Chemistry**, (2017), **142,** *131-151***.**

20. Wesam E Mehanna, Tiangong Lu, Bikash Debnath, **Deena S. Lasheen**, Rabah AT Serya, Khaled A Abouzid, Nouri Neamati, *Synthesis, ADMET properties, and biological evaluation of benzothiazole compounds targeting CXCR2,* **ChemMedChem**, (2017), **12,** *1045–1054.*

21. Xingyue Ji, Eman M. El-labbad, Kaili Ji, **Deena S. Lasheen**, Rabah A. T. Serya, Khaled A. Abouzid, and Binghe Wang, *Click and Release: SO2 Prodrugs with Tunable Release Rates,* **Organic Letters,** (2017), *818-821.*

22. Mervat M. Abd Elhalim, Nasser SM Ismail, Yasmin Y Omar, A. A. Abd Rabou, **Deena S. Lasheen**, M. F. Zawrah, Gamal A. Elmegeed, *Synthesis, Characterization, and Evaluation of Cytotoxic Effects of Novel Hybrid Steroidal Heterocycles as PEG Based Nanoparticles,* **Asian Pacific journal of cancer prevention: APJCP**, (2017), **18,** *1937.*

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23. Soha R. Abd El Hadi, **Deena S. Lasheen,** Mahmoud A. Hassan, and Khaled A. M. Abouzid; *Design and Synthesis of 4-Anilinothieno[2,3-d]pyrimidine-Based Compounds as Dual EGFR/HER-2 Inhibitors,* **Archiv der Pharmazie**, (2016), ***349***, *1-21.*

24. Samar Mowafy, A Galanis, Zainab M Doctor, Raymond M Paranal, **Deena S. Lasheen**, Nahla A Farag, Pasi A Jänne, Khaled AM Abouzid; *Toward discovery of mutant EGFR inhibitors; Design, synthesis and in vitro biological evaluation of potent 4-arylamino-6-ureido and thioureido-quinazoline derivatives,* **Bioorganic & Medicinal Chemistry**, (2016), ***24***, *3501–3512.*

25. Marwa A. Aziz, Rabah A.T. Serya, **Deena S. Lasheen,** Amal Kamal Abdel-Aziz, Ahmed Esmat, Ahmed M. Mansour, Abdel Nasser B. Singab and Khaled A. M. Abouzid; *Discovery of Potent VEGFR-2 Inhibitors based on Furopyrimidine and Thienopyrimidne Scaffolds as Cancer Targeting Agents,* **Scientific Reports**, (2016), **6**, *24460.*

26. Monia Hossam, **Deena S. Lasheen**, Khaled AM Abouzid; *Covalent EGFR Inhibitors: Binding Mechanisms, Synthetic Approaches, and Clinical Profiles,* **Archiv der Pharmazie**, (2016), ***349***, *573–593.*

27. Marwa A. Aziz, Rabah A.T. Serya, **Deena S. Lasheen** and Khaled A. M. Abouzid; *Furo[2,3-d]pyrimidine based derivatives as kinase inhibitors and anticancer agents*, **Future Journal of Pharmaceutical Sciences**, (2016), **2**, *1-8.*

28. Diaa A. Ibrahim, **Deena S. Lasheen**, Maysoun Y. Zaky, Amany W. Ibrahim, Daniela Vullo, Mariangela Ceruso, Claudiu T. Supuran, Dalal A. Abou El Ella; *Design and synthesis of benzothiazole-6-sulfonamides acting as highly potent inhibitors of carbonic anhydrase isoforms I, II, IX and XII,* **Bioorganic & Medicinal Chemistry**, (2015), ***23,*** *4989–4999.*

29. Deena S. Lasheen, Mohamed A.H. Ismail, Dalal A. Abou El Ella, Nasser S.M. Ismail, Sameh Eid, Susan Vleck, Jeffrey S. Glenn, Andrew G. Watts, Khaled A. M. Abouzid; *Analogs Design, Synthesis and Biological Evaluation of Peptidomimetics with Potential Anti-HCV Activity*, **Bioorganic & Medicinal Chemistry**, (2013), ***21*** *2742–2755*.

30. Mohamed A. H. Ismail, Dalal A. R. Abou El Ella, Khaled A. M. Abouzid and **Deena S. M. Lasheen,** *Molecular Modeling Design, Synthesis and Biological Evaluation of New Imidazoline Derivatives as α1-AR Antagonists and Ang II Receptor Antagonists,* **Jordan Journal of Chemistry**, *(*2009), ***4***, *329-347.*

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