

**Kazem Ahmed Mahmoud, Ph.D.**

Lecturer of Pharmaceutical Medicinal Chemistry,  
Head of Students Field Training Committee,  
Head of Alumni Committee,  
Faculty of Pharmacy,  
Egyptian Russian University,  
11829 Badr City, Cairo/Suez Road,  
Egypt.

**Personal Data**

**Nationality:** Egyptian

**Date and Place of birth:** 06.01.1981; Sohag/Egypt

**Current Address:** 13 El-Sheemy Street,  
Dokki, Giza, Egypt

**Marital status:** Married

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**Education**

- 2010-2013                      **PhD in Pharmaceutical Medicinal Chemistry**  
(*R.G. Drug Development and Analysis*)  
**Martin Luther University Halle-Wittenberg, Germany**  
**Title** (*Development of Novel Protein Kinase Inhibitors as Potential Therapeutics for Breast Cancer*); **Supervisor:** Prof.Dr. A. Hilgeroth
- 2009- 2010                      **Master in Pharmaceutical Medicinal Chemistry**  
(*R.G. Drug Development and Analysis*)  
**Martin Luther University Halle-Wittenberg, Germany**  
**Title** (*New 1-Aza-9-oxafluorenes as Inhibitors of Alzheimer Disease-Relevant Kinases*); **Supervisor:** Prof.Dr. A. Hilgeroth
- 2005                                **Clinical Pharmacology Course**  
Egyptian Ministry of Health & Population  
Cairo, **Egypt**
- 1998- 2003                      **Bachelor of Pharmacy and Pharmaceutical Sciences**  
Faculty of Pharmacy, Assiut University, Assiut, **Egypt**

**Work experience**

- 01/02/2018- Till now            **Egyptian Russian University (Faculty of Pharmacy)**  
**Lecturer of Pharm.Chem.; Drug Design & Org.Chem.** ; Badr City, Cairo/Suez Road, **Egypt**
- 01/02/2016-31/1/2018           **Ahram Canadian University (Faculty of Pharmacy)**  
**Lecturer of Pharm.Chem. & Org.Chem.** ; 6<sup>th</sup> October City, Giza, **Egypt**
- 05/2014-01/2016                **Farma-plus Apotheke**

*Academic pharmacist* preparing for the “*German Approbation*”  
*Kaiserslautern, Rheinland-Pfalz, Germany*

|                  |   |
|------------------|---|
| 02/2013- 10/2013 | <b>Martin Luther University</b> (Institute for Pharmacy)<br><i>Postdoc.; Halle (Saale), Sachsen-Anhalt, Germany</i> |
| 02/2006- 10/2008 | <b>Al- Farabi Pharmacies Chains</b> (Community Pharmacy)<br><i>Pharmacist; Riyadh, Saudi Arabia</i>                 |
| 06/2005- 12/2005 | <b>Sanofi-Aventis Pharmaceutical Company</b><br><i>Medical representative; Cairo, Egypt</i>                         |
| 06/2003- 06/2005 | <b>Al- Huda Pharmacy</b> (Community Pharmacy)<br><i>Pharmacist; Cairo, Egypt</i>                                    |

### Skills & Qualifications

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#### Teaching Experience:

- ✓ Teaching the following course in Pharmaceutical Medicinal Chemistry for undergraduate pharmacy students; *Drug Design* [Level 5]; Faculty of Pharmacy, **Egyptian Russian University, Egypt.**
- ✓ Teaching the following courses in Pharmaceutical Organic Chemistry for undergraduate pharmacy students; *Carbonyl Compounds, Amines* [Level 1, **Org.Chem.I**] and *Heterocyclic Chemistry* [level 2, **Org.Chem.III**]; Faculty of Pharmacy, **Egyptian Russian University, Egypt.**
- ✓ Teaching the following courses in Pharmaceutical Medicinal Chemistry for undergraduate pharmacy students; *Drug Metabolism, NSAIDs, Opioid Analgesics* [Level 4, **Med.Chem.I**], *Antihistaminic Drugs, Cardio-Vascular Drugs* [Level 4, **Med.Chem.II**]; Faculty of Pharmacy, **Ahram Canadian University, Egypt.**
- ✓ Teaching the following courses in Pharmaceutical Organic Chemistry for undergraduate pharmacy students; *Carbohydrate Chemistry, Polynuclear Chemistry* [level 2, **Org.Chem.II**] and *Heterocyclic Chemistry* [level 2, **Org.Chem.III**]; Faculty of Pharmacy, **Ahram Canadian University, Egypt.**
- ✓ Supervising the practical work (*Wahlpflichtfach*) for 3<sup>rd</sup> year pharmacy students, Pharmaceutical Chemistry & Clinical Pharmacy Department, Institute of Pharmacy, **Martin Luther University Halle-Wittenberg, Germany** (for 8 Semesters).
- ✓ **Teaching Assistantship** granted by **Martin Luther University Halle-Wittenberg, Germany** for two successive semesters (2012)  
Program: *DAAD STIBET – Doktorandenförderung*

### Search Experience:

- ✓ Good experience in organic synthetic reaction techniques and mechanisms (Michael Addition, Grignard reaction, Nenitzescu-reaction, Friedel-Crafts Acylation, Aldol Condensation, Electrophilic Aromatic Substitution reaction (sulfonation, nitration, acetylation, halogenations & cyanation), Nucleophilic substitution reaction, Mannich reaction, Suzuki-Miyaura reaction, Air-sensitive reactions and some other organic chemistry lab skills.
- ✓ Experience in analyzing NMR ( $^1\text{H}$ ,  $^{13}\text{C}$ , 1D & 2D), MS (ESI & EI) and IR spectra.
- ✓ **Purification Skills:** isolation of reaction products using column chromatography, preparative TLC and HPLC.
- ✓ **Computer Skills:** Scientific search (Scifinder & Reaxys), Journal Editing, ChemDraw and MestReNova Microsoft.
- ✓ **Additional Skills:** experience in Medicinal Chemistry, Drug Development & Discovery, interpretation of Biological Data Analysis (Protein Kinase Assay, NCI 60-Cell-Line Screenings [One- and/or Five-dose], Docking Studies) and SAR investigation.

### Grants & Awards

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| <b>2011</b> | <b>Research Assistantship</b> granted by Martin Luther University Halle-Wittenberg for summer semester<br>Program: <i>DAAD STIBET – Doktorandenförderung</i>                 |
| <b>2012</b> | <b>Teaching Assistantship</b> granted by Martin Luther University Halle-Wittenberg for <b>two</b> successive semesters<br>Program: <i>DAAD STIBET – Doktorandenförderung</i> |

### Memberships & Academic Activities

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|-------------------|---|
| 2003              | Member of the Egyptian Pharmacists Syndicate, <b>Cairo, Egypt.</b>  |
| 2003              | Member of the Egyptian Ministry of Health, <b>Cairo, Egypt.</b>   |
| 2007 – till now   | Member of the Egyptian Pharmacists Society in <b>Riyadh, KSA.</b>   |
| 2/2016 – 2/2018   | General Supervisor of Student Union and Student Activities, <b>Faculty of Pharmacy, Ahram Canadian University, Egypt.</b>                               |
| 2/2016 – 2/2018   | Vice head of the Alumni Society, <b>Faculty of Pharmacy, Ahram Canadian University, Egypt.</b>  |
| 2/2016 – till now | Quality Assurance Unit Member, Faculty of Pharmacy [in both <b>Ahram Canadian University &amp; Egyptian Russian University</b> ], <b>Egypt.</b>         |
| 28-29 April 2018  | Member of Organization Committee for PHARMA-EGYRUSS 2018 international conference <a href="http://www.pharmaegyru.com/">http://www.pharmaegyru.com/</a> |
| 4/2019 – till now | General Supervisor of University Student Union and Student Activities. <b>Egyptian Russian University, Egypt.</b>                                       |

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Books & Publications & Scientific Activities

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✚ **Books:**International Books:

- “Novel Protein Kinase Inhibitors as New Therapeutics for Breast Cancer”  
*Author:* Kazem Mahmoud  
*Publisher:* LAP LAMBERT Academic Publishing (trademark of *OmniScriptum GmbH & Co. KG*), Heinrich-Böcking-Str. 6-8, 66121, Saarbrücken, **Germany**  
**ISBN:** 978-3-659-70962-3

Books for Undergraduate Students:

- Organic Chemistry I [level 1, second semester]
- Organic Chemistry II [level 2, first semester]
- Organic Chemistry III [level 2, second semester]
- Drug Design [level 5, first semester]

✚ **Reviews:**

- Mardia Telep El-Sayed, **Kazem Mahmoud**, Andreas Hilgeroth. Synthesis of  $\beta$ -Nitroamines via Classical Mannich and Aza-Henry Reactions. *J. Current Organic Chemistry* **2013**, *17*, 1200-1224.

✚ **Papers:**

- Mardia T. El-Sayed, **Kazem Ahmed Mahmoud**, Frank. W. Heinemann, Andreas Hilgeroth. Novel Tetraindoles and Unexpected Cycloalkane Indoles from the Reaction of Indoles and Aliphatic Dialdehydes. *Journal of Heterocyclic Chemistry*, **2017**, *54*, 714-719
- Mardia T. El Sayed, **Kazem Mahmoud**, Andreas Hilgeroth, Issa M. I. Fakhr, Synthesis of novel indolo spirocyclic compounds. *Journal of Heterocyclic Chemistry*, **2016**, *53*, 188-196.
- Mardia T. El Sayed, Khadiga M. Ahmed, **Kazem Mahmoud**, Andreas Hilgeroth, Synthesis, cytostatic evaluation and structure activity relationships of novel bis-indolylmethanes and their corresponding tetrahydroindolo-carbazoles. *European Journal of Medicinal Chemistry* **2015**, *90*, 845-859.
- Oelze, Markus; **Mahmoud, Kazem**; Sippl, Wolfgang; Wersig, Tom; Hilgeroth, Andreas; Ritter, Christoph. Novel 4-anilino- $\alpha$ -carboline derivatives induce cell death in nonadhesive breast cancer cells through inhibition of Brk activity. *International journal of clinical pharmacology and therapeutics*, **2015**, *53*, 1052-1055.
- **Kazem Ahmed Mahmoud**, M. Krug, T. Wersig, I. Slynko, C. Schächtele, F. Totzke, W. Sippl, and A. Hilgeroth. Discovery of 4-anilino  $\alpha$ -carbolines as novel Brk inhibitors. *Bioorg. Med. Chem. Lett.* **2014**, *24*, 1948-1951.
- **Kazem Ahmed Mahmoud**, T. Wersig, I. Slynko, F. Totzke, C. Schächtele, M. Oelze, W. Sippl, C. Ritter, and A. Hilgeroth. Novel inhibitors of breast cancer relevant kinases Brk and HER2. *Med. Chem. Comm.* **2014**, *5*, 659-664
- Mardia El Sayed, **Kazem Mahmoud**, Andreas Hilgeroth. Glacial acetic acid as an efficient catalyst for simple synthesis of dindolylmethanes. *Current Chemistry Letters* **2014**, *3*, 7-14.
- Mardia T. El Sayed, Khadiga M. Ahmed, **Kazem Mahmoud**, Andreas Hilgeroth, Novel Aspects of Domino Reaction of Indoles with Homo-

Phthalaldehyde and Tere-phthalaldehyde. *The Global Journal of Science Frontier Research* **2014**, *14*, 6-B, 15-21.

- Mardia T. El-Sayed, **Kazem Mahmoud**, Khadiga M. Ahmed, Hassan M. Awad, Andreas Hilgeroth, First oxidized tetraindoles with antimicrobial evaluation and structure activity relationship. *Journal of Harmonized Research in Pharmacy* **2014**; *3*(4):176-176.
- Volkmar Tell, **Kazem Ahamed Mahmoud**, Kanin Wichapong, Christoph Schächtele, Frank Totzke, Wolfgang Sippl and Andreas Hilgeroth. Novel aspects in structure-activity relationships of profiled 1-aza-9-oxafluorenes as inhibitors of alzheimer disease-relevant kinases cdk1, cdk5 and gsk3 $\beta$ . *Med. Chem. Comm.* **2012**, *3*, 1413-1418.
- Volkmar Tell, Max Holzer, Lydia Herrmann, **Kazem Ahmed Mahmoud**, Christoph Schächtele, Frank Totzke, Andreas Hilgeroth. Multitargeted drug development: Discovery and profiling of dihydroxy substituted 1-aza-9-oxafluorenes as lead compounds targeting Alzheimer disease relevant kinases. *Bioorg. Med. Chem. Lett.* **2012**, *22*, 6914-6918.

#### Posters:

- V. Tell, **K. A. Mahmoud**, I. Hilbrich, K. Wichapong, M. Holzer, C. Hempel, C. Schächtele, F. Totzke, W. Sippl, A. Hilgeroth. **Novel Inhibitors of Alzheimer Disease (AD) Relevant Kinases: Structure-activity Relationships and First In Vitro Activity Data.** *10<sup>th</sup> International Conference on Alzheimer's & Parkinson's Disease*, **Barcelona, Spain**, 9-13 March **2011**.
- Mardia Teleb, E., **Kazem, A.M.**, Hilgeroth, A. **Novel Bis-Indolyl Cytostatics.** *6<sup>th</sup> Summer School in Medicinal Chemistry*, **Regensburg, Germany**, 26-28 September **2012**.
- Mardia Teleb, E., **Kazem, A. M.**, Hilgeroth, A. **Synthesis of Novel Indolo Spirocyclic Compounds.** *International Congress of Young Chemists "YoungChem2012"*, **Gdańsk, Poland**, 10-14 October **2012**.
- M. Oelze, **K. A. Mahmoud**, W. Sippl, T. Wersig, A. Hilgeroth, C. A. Ritter. **Novel 4-Aniline- $\alpha$ -carboline derivatives induce cell death in non adhesive breast cancer cells through inhibition of Brk activity.** *Central European Society for Anticancer Drug Research "CESAR" Annual Meeting; Drug and Medication Safety in Oncology*, **Bonn, Germany**, 26-28 June **2014**.
- **Kazem Mahmoud**, Mardia El-Sayed, Marcus Oelze, Wolfgang Sippl, Frank Totzke, Christoph Ritter, Andreas Hilgeroth. **First, newly synthesized,  $\alpha$ -carboline derivatives and their effect on Brk signaling as new therapeutics for breast cancer.** *1<sup>st</sup> ACU International Conference of Pharmaceutical Sciences "New Trends in Pharmaceutical and Medical Research (NTPMR)"*, **6th October City, Egypt**, 28-29 May **2016**.

 **Peer Reviewer for:**

- *Molecules*
- *Chemistry Central Journal*
- *Journal of Saudi Chemical Society*
- *Bioorganic & Medicinal Chemistry Letters*
- *Sensors*
- *Arabian Journal of Chemistry*
- *Phosphorus, Sulfur, and Silicon and the Related Elements Journal*
- *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*