



# Mina Wadie Ibrahim Yousif

## Assistant Professor

Pharmaceutical Analytical Chemistry Department, Faculty of Pharmacy, Cairo University

- Scopus: <https://www.scopus.com/authid/detail.uri?authorid=57211683275>
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- Google scholar: <https://scholar.google.com/citations?hl=en&authuser=1&user=3tYPLowAAAAJ>
- Publon: <https://www.webofscience.com/wos/author/record/GLN-4510-2022>

## CONTACT

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## HOBBIES

Reading  
Travelling  
Cycling  
Swimming

## PERSONAL INFORMATION

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- **Name:** Mina Wadie Ibrahim Yousif
- **Date of Birth:** 30 June 1992

## QUALIFICATIONS

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**PhD Degree in Pharmaceutical Sciences (Pharmaceutical Analytical Chemistry)**, Faculty of pharmacy, Cairo University – April 2024

Topic: *Analytical Assessment of Some Drugs Prescribed Single or in Combinations for Treating Some Urological Disorders.*

**Master Degree in Pharmaceutical Sciences (Pharmaceutical Analytical Chemistry)**, Faculty of pharmacy, Cairo University – March 2021

Topic: *Analytical Study of Some Drugs Treating Benign Prostatic Hyperplasia.*

**Bachelor of Pharmaceutical Science**, Faculty of Pharmacy - Cairo University, May 2016.

## AWARDS

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- Best Master thesis in Faculty of Pharmacy, Cairo University for the year of 2021.

## ACADEMIC AND PROFESSIONAL WORK PROFILE

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- **Lecturer**, Pharmaceutical Analytical Chemistry, Faculty of Pharmacy, Cairo University, (2024 – Now)
- **Assistant Dean, Technical and Governance Affairs**, Faculty of Pharmacy, Cairo University (January 2024 - Now).
- **Assistant Vice dean, Graduate Studies and Research Affairs**, Faculty of Pharmacy, Cairo University (February 2021 – January 2024).
- **Assistant lecturer**, Analytical Chemistry, Faculty of Pharmacy, Cairo University (2021 - 2024).
- **Demonstrator**, Analytical chemistry, Faculty of Pharmacy, Cairo University, 2017 – 2021.

## ACADEMIC AND TEACHING EXPERIENCE

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### ➤ UNDERGRADUATE TEACHING:

- **Cairo University**, Faculty of Pharmacy: Entrepreneurship course (UR 304) - 2024/2025.
- **University of Hertfordshire**, Medical life and Science: Fundamental of Analytical Chemistry (FAC) – 2024/2025.
- **Egypt Japan University of Science & Technology**, Faculty of Pharmacy: Pharmaceutical Analytical Chemistry III (PMC 215) – 2024/2025.

## RESEARCH ACTIVITIES

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- Get a grant for an exceptional program of scholarships for short scientific stays (three weeks) in France provided by The French Embassy in Egypt starting from **1<sup>st</sup> December 2022** to **24<sup>th</sup> December 2022** at **Institute de Sciences Analytiques (ISA)**, Université de Lyon, Université de Claude Bernard Lyon1 under supervision of **Professor Dr./ Abdelhamid Errachid El Salhi**.
- Win "**Ellebedy Fellowship**", **Call 2022**, a \$2,000 grant to the top applicant seeking a Ph.D. degree at the Faculty of Pharmacy, Cairo University under title of "**Exploring the feasibility of computational analysis for selecting the appropriate ionophores for green and online sensing of some urological drugs using microfabricated electrode**".

## RESEARCH EXPERINCE

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- Selecting the appropriate functional monomer for polymer formation *via* Computational simulation based on density functional theory using Material Discovery studio 2017 software.

- Synthesis of molecularly imprinted polymers *via* precipitation and electro-polymerization techniques for selective determination of specific analytes in various real samples.
- In-lab preparation of various functional nanoparticles such as gold and silver nanoparticles.
- Characterization of Surface Morphology using various techniques like Atomic Force Microscope, Field-emission Scanning Electron microscope and X-ray photoelectron spectroscopy.
- Material characterization by means of proton nuclear magnetic resonance (<sup>1</sup>H-NMR) spectroscopy, Fourier transform infrared spectroscopy, Zeta-sizer and transmission electron microscope and differential scanning calorimetry.
- Defining porous materials using Brunauer-Emmett-Teller (BET) surface area analysis.
- Fabricating electrochemical sensors based on molecularly imprinted polymers and functional nanoparticles.
- Utilization of different voltammetric analytical approaches including cyclic voltammetry, Differential pulse voltammetry and electrochemical impedance spectroscopy.
- Multivariate screening and optimization of various experimental parameters through adopting full factorial and central composite design using Design Expert® Software.
- Analysis of pharmaceutical compounds utilizing different analytical techniques such as spectrophotometry, HPLC, TLC-densitometry.
- Studying the chemical stability of the drugs under different stress conditions including acidic, basic, oxidative, thermal and photolytic conditions as per ICH guidelines.
- Adopting twelve principles of green analytical chemistry during method development and their assessment using various metrics including: Environmental, Health and Safety (EHS) tool, national environmental methods index (NEMI), analytical eco-scale, green analytical procedure index (GAPI), method greenness score (AMGS) calculator and analytical greenness (AGREE) metric.

#### PUBLICATIONS (Author's *h*-index = 15)

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1. Rezk MR, Tantawy MA, **Wadie M**, Weshahy SA. *Smart spectrophotometric assessment of tamsulosin hydrochloride and tadalafil in their new pharmaceutical formulation for treatment of benign prostatic hyperplasia and erectile dysfunction*. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy. 2020; 227:117547.
2. Tantawy MA, Weshahy SA, **Wadie M**, Rezk MR. *Novel HPTLC densitometric methods for determination of tamsulosin HCl and tadalafil in their newly formulated dosage form: Comparative study and green profile assessment*. Biomedical Chromatography. 2020; 34: e4850.

3. Tantawy MA, Weshahy SA, **Wadie M**, Rezk MR. *Stability-indicating HPTLC method for the simultaneous detection and quantification of alfuzosin hydrochloride, solifenacin succinate along with four of their official impurities*. Microchemical Journal. 2020; 157: 104905.
4. Tantawy MA, Weshahy SA, **Wadie M**, Rezk MR. *A novel HPLC-DAD method for simultaneous determination of alfuzosin and solifenacin along with their official impurities induced via a stress stability study; investigation of their degradation kinetics*. Analytical Methods. 2020; 12: 3368-3375.
5. Tantawy MA, Weshahy SA, **Wadie M**, Rezk MR. *Eco-friendly Spectrophotometric Methods for Assessment of Alfuzosin and Solifenacin in their new Pharmaceutical Formulation; Green Profile Evaluation via Eco-scale and GAPI Tools*. Current Pharmaceutical Analysis. 2020; 16: 1-11
6. Rezk MR, Abdel-Moety EM, **Wadie M**, Tantawy MA. *Stability assessment of Tamsulosin and Tadalafil co-formulated in capsules by two validated chromatographic methods*. Journal of Separation Science. 2020; 1 - 9.
7. Abdel-Moety EM, Rezk MR, **Wadie M**, Tantawy MA. *A combined approach of green chemistry and Quality-by-Design for sustainable and robust analysis of two newly introduced pharmaceutical formulations treating benign prostate hyperplasia*. Microchemical Journal. 2021; 160: 105711.
8. **Wadie M**, EM Abdel-Moety, Rezk MR, Tantawy MA. *Eco-friendly chiral HPLC method for determination of alfuzosin enantiomers and solifenacin in their newly pharmaceutical combination: Method optimization via central composite design*. Microchemical Journal. 2021; 165: 106095.
9. **Wadie M**, Marzouk HM, Rezk MR, Abdel-Moety EM, Tantawy MA. *A sensing platform of molecular imprinted polymer-based polyaniline/carbon paste electrodes for simultaneous potentiometric determination of alfuzosin and solifenacin in binary co-formulation and spiked plasma*. Analytica Chimica Acta. 2022; 1200: 339599.
10. Rostom Y, **Wadie M**, Rezk MR, Marzouk HM, Abdel-Moety EM. *Fingerprinting and iso-absorptive resolution techniques for the spectrally overlapping Dutasteride and Silodosin mixture: Content uniformity testing along with greenness profile assessment*. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy. 2022; 273: 121063.
11. **Wadie M**, Abdel-Moety EM, Rezk MR, Mahmoud AM, Marzouk HM. *Electro-polymerized poly-methylodopa as a novel synthetic mussel-inspired molecularly imprinted polymeric sensor for darifenacin: Computational and experimental study*. Applied Materials Today. 2022; 29: 101595.

12. **Wadie M**, Abdel-Moety EM, Rezk MR, Marzouk HM. *A novel smartphone HPTLC assaying platform versus traditional densitometric method for simultaneous quantification of alfuzosin and solifenacin in their dosage forms as well as monitoring content uniformity and drug residues on the manufacturing equipment.* RSC Advances. 2023; 13: 11642-11651.
13. **Wadie M**, Abdel-Moety EM, Rezk MR, Marzouk HM. *Sustainable and smart HPTLC determination of silodosin and solifenacin using a constructed two illumination source chamber with a smartphone camera as a detector: Comparative study with conventional densitometric scanner.* Sustainable Chemistry and Pharmacy. 2023; 33: 101095.
14. **Wadie M**, Abdel-Moety EM, Rezk MR, Marzouk HM. *Smartphone-Based HPTLC Along with Benchtop Densitometry for Simultaneous Quantification of Co-formulated Dutasteride with Silodosin and their Residuals on Manufacturing Equipment's Surfaces.* Bulletin of the Faculty of Pharmacy Cairo University. 2023; 61.
15. Rostom Y, Rezk MR, **Wadie M**, Abdel-Moety EM, Marzouk HM. *State-of-the-art mathematically induced filtration approaches for smart spectrophotometric assessment of silodosin and solifenacin mixture in their new challenging formulation: Multi-tool greenness and whiteness evaluation,* Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy. 2024; 307: 123650.
16. **Wadie M**, Abdel-Moety EM, Rezk MR, Marzouk HM. *A novel eco-friendly HPLC method with dual detection modes for versatile quantification of dutasteride and silodosin in pharmaceutical formulation, dissolution testing and spiked human plasma,* Microchemical Journal. 2024; 197: 109753.
17. Hussein O.G., Rezk M.R., **Wadie M**. *An integrated paradigm between green analytical chemistry and quality-by-design for robust analysis of alcaftadine and ketorolac tromethamine in aqueous humor via sustainable chromatographic methods,* Sustainable Chemistry and Pharmacy. 2024; 42: 101827.
18. **Wadie M**, Tantawy M.A., Goda Z.M. *A novel spectrofluorimetric method for vibegron in the newly FDA approved pharmaceutical formulation and in human plasma: Analytical QbD strategy for method development and optimization,* Journal of Fluorescence. 2024

## WORKSHOPS AND TRAINING COURSES

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### 1. Examination and Student Assessment Systems

Faculty and Leadership Development Center - Cairo University.

21<sup>st</sup> – 22<sup>nd</sup> April 2018

### 2. Organizing Scientific Conferences

Faculty and Leadership Development Center - Cairo University.  
7<sup>th</sup> - 8<sup>th</sup> May 2018

### **3. International Publication of Scientific Research**

Faculty and Leadership Development Center - Cairo University.  
17<sup>th</sup> - 18<sup>th</sup> November 2018

### **4. Benefits of Kinetex core-shell and Luna Omega fully porous technologies and their new phases**

organized and presented by Phenomenex at Faculty of Pharmacy, Cairo University  
March 2019

### **5. Critical Thinking**

Faculty and Leadership Development Center - Cairo University.  
24<sup>th</sup> – 25<sup>th</sup> April 2019

### **6. Egyptian Knowledge Bank and Sources Search**

Faculty and Leadership Development Center - Cairo University.  
28<sup>th</sup> – 29<sup>th</sup> August 2019

### **7. Effective Presentation Skills**

Faculty and Leadership Development Center - Cairo University.  
18<sup>th</sup> – 19<sup>th</sup> November 2019

### **8. 4 Easy Steps to Effective Factorial Design**

Online course at Stat - Ease Academy  
21<sup>st</sup> January 2020

### **9. Pre-DOE: Basic Statistics for Experimenters**

Online course at Stat - Ease Academy  
21<sup>st</sup> January 2020

### **10. Finding the Vital Settings via Factorial Analysis**

Online course at Stat - Ease Academy  
24<sup>th</sup> January 2020

### **11. How to Save Runs with Fractional Factorial Designs**

Online course at Stat - Ease Academy  
25<sup>th</sup> January 2020

### **12. Basics of Blended Learning**

Online course at Faculty and Leadership Development Center - Cairo University.  
16<sup>th</sup> – 17<sup>th</sup> December 2020.

### 13. Training of Trainers

Central unit of IT training, Cairo University.

13<sup>th</sup> – 16<sup>th</sup> June 2022

### 14. Writing proposals for funding research: applying for grants, seeking industrial collaboration

organized by the drug manufacturing unit (DMU) – Faculty of Pharmacy, Cairo University.

20<sup>th</sup> May 2024

### 15. Entrepreneurship

Central unit of IT training, Cairo University.

10<sup>th</sup> – 11<sup>th</sup> August 2022

### 16. Quality standards in the teaching process

Central unit of IT training, Cairo University.

07<sup>th</sup> – 08<sup>th</sup> September 2022

## CONFERENCES AND SEMINARS

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- 1- 10<sup>th</sup> International Scientific Conference of Faculty of Pharmacy, Cairo University, **as a member of the organization team**, 2021.
- 2- 6<sup>th</sup> Annual Arab International Pharmacy Conference held in Hilton Cairo Heliopolis in Cairo, Egypt, **as a poster presenter** under title of "*Sustainable and advanced resolution techniques for the spectrally overlapping mixture of Dutasteride and Silodosin*", 2022.
- 3- 11<sup>th</sup> International Scientific Conference of Faculty of Pharmacy, Cairo University, held in Conrad Hotel, Corniche El-Nil in Cairo, Egypt, **as a poster presenter** under title of "*Fabrication of Poly-methyldopa as a Novel Synthetic Mussel-inspired Molecularly Imprinted Polymeric Sensor for Darifenacin*", 2023.
- 4- 11<sup>th</sup> International Scientific Conference of Faculty of Pharmacy, Cairo University, **as a member of the organization team**, 2023.
- 5- 17<sup>th</sup> FOPCU Employment Fair "Way to Fifth Industrial Revolution" held at the Faculty of Pharmacy, Cairo University, **as a member of the organization team**, 24<sup>th</sup>- 25<sup>th</sup> April 2024.
- 6- "Shaping the awareness for dementia in Egypt" as a mini symposium organized by German Academic Exchange Service (DAAD), **as an attendee and a member of the organization team** at the Faculty of Pharmacy, Cairo University, 12<sup>th</sup> September 2024

## ACADEMIC ACTIVITIES

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- 1- Participation in Martyr's Day organized by Department of Morale Affairs of the Egyptian Armed Forces and Cairo University on 9<sup>th</sup> March 2022.
- 2- A member of the organization team for the graduation ceremonies of classes 2020 and 2021 of pharmacy bachelor's degree (two semester program and clinical program) during the period from 1<sup>st</sup> September 2022 to 29<sup>th</sup> September 2022.
- 3- A member of Academic Advising team for undergraduate students of Faculty of Pharmacy, Cairo University from 2023 till now.
- 4- A member of the committee of media, marketing and self-resources development of Faculty of Pharmacy, Cairo University in 2023.
- 5- A member of the organization team for the Scientific Conference of Pharmaceutical Analytical Chemistry department, Faculty of Pharmacy, Cairo University in 2023.
- 6- A member of the organization team for the graduation ceremonies of classes 2022 and 2023 of pharmacy bachelor's degree (two semester program and clinical program) during the period from 21<sup>st</sup> September 2023 to 23<sup>rd</sup> September 2023.
- 7- A member of the organization committee for the academic event "Post-graduates Graduation Ceremony & Jubilee" on 27<sup>th</sup> July 2024 for post-graduate students (grad. 2023), Golden Jubilee (class no. 146, grad. 1974) and Silver Jubilee (class no. 171, grad. 1999).