



CURRICULUM VITAE



Rasha Mohamed Mohamed Abd El-Mageed Abu El-Khair



I- Personal information:

- i- **Name:** Rasha Mohamed Mohamed Abd El- Mageed Abu El- Khair
- ii- **Present appointment:** Associate Professor of Pharmacognosy and Vice- Dean for training and community services, College of Pharmacy, Arab Academy for Science, Technology and Maritime Transport, Abi Qir, Alexandria, Egypt.
- iii- **Date of birth:** January 19, 1979.
- iv- **Nationality:** Egyptian.
- v- **Marital status:** Divorced.
- vi- **Number of children:** Two.
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II- Academic qualification:

- i- Bachelor of Pharmaceutical sciences, Distinct with Honor degree, University of Alexandria (2001).
- ii- Master degree in Pharmaceutical sciences, Department of Pharmacognosy (2006).
The title of the thesis is:
"Phytochemical study of some plants belonging to family Umbelliferae (Apiaceae) "
- iii- Ph.D. in Pharmaceutical sciences, Department of Pharmacognosy (2014).
The title of the thesis is:
"Phytochemical investigation of some Egyptian plants as a natural source of antioxidants"

III-Employment:

i- Demonstrator at Pharmacognosy Department, Faculty of Pharmacy, Alexandria University (9/2001):

2001- 2002: Applied pharmacognosy for the fourth year.

Pharmacognosy for the second year.

2003-2006: Pharmacognosy for the first year.

ii- Assistant Lecturer at Pharmacognosy Department, Faculty of Pharmacy, Alexandria University (12/2006):

2006 -2014: Pharmacognosy for the first year.

iii- Lecturer at Pharmacognosy Department, Faculty of Pharmacy, Alexandria University (4/2014):

2014- 2020: Pharmacognosy for the first year.

2014-2020: Pharmacognosy 1 for clinical pharmacy program.

2015- 2019: Lecturer (Part time) at the pharmacognosy department, Faculty of Pharmacy, Damanhour University. (Pharmacognosy I and Introduction for medicinal plants for the first year, Pharmacognosy II for the second year)

2014- 2015: Identification and analysis of toxic plant and natural toxins for post graduate students, forensic medicine department, Faculty of Medicine, AlexandriaUniversity.

2014-2018: Spectral and Chemical Characterization of Natural Products for master program students, Pharmacognosy Department, Faculty of Pharmacy, Alexandria University.

2015- 2016: Recent Advances in Pharmacognosy for master program students, pharmacognosy department, Faculty of Pharmacy, Damanhour University.

2016-2017: Lecturer (Part time) Introduction to medicinal plants for first year students, College of Pharmacy, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt.

iv-Associate Professor at Pharmacognosy Department, Faculty of Pharmacy, Alexandria University (5/2020)

v- Associate Professor and Head of pharmacognosy courses group, College of Pharmacy, Arab Academy for Science, Technology and Maritime transport, Abi Qir (6/2020- current)

2020- current: Medicinal plants and Pharmacognosy 1 for first year students, Drugs of natural origin for second year students, college of pharmacy, Arab Academy for Science, Technology and Maritime Transport, Abi Qir, Alexandria, Egypt.

vi - Quality Assurance Unit coordinator at Pharmacognosy Department, Faculty of Pharmacy, Alexandria University (2015- 2019).

vii- Quality assurance unit coordinator for Environmental cooperation and social services standard, Faculty of Pharmacy, Alexandria University (2015- 2019)

viii- Vice- Dean for training and community services, College of Pharmacy, Arab Academy for Science, Technology and Maritime transport, Abi Qir (1/2022- current)

IV Supervised thesis:

- 1- Rahma Sayed Rashad **Master Thesis**, Pharmacognosy department, Faculty of Pharmacy, Alexandria University.
- 2- Rahma Sayed Rashad **PhD Thesis**, Pharmacognosy department, Faculty of Pharmacy, Alexandria University.
- 3- Mariam El- Attar **Master Thesis**, Pharmacognosy department, Faculty of Pharmacy, Alexandria University.
- 4- Mariam Yasser **Master Thesis**, Pharmacognosy department, Damanhour University.
- 5- Mariam Yasser **PhD Thesis**, Pharmacognosy department, Faculty of Pharmacy, Damanhour University.
- 6- Aya Sharaf, **Master Thesis**, Pharmacognosy department, Damanhour University.

V- Publications:

- 1- Antioxidant compounds from the fresh pericarp of *Vicia faba* L. cultivar Rena mora cultivated in Egypt. **Abu El-Khair RM**; Seif El-Din AA; Amer ME; El-Fiky FK; Radwan MM, Wanas AS; El-Sohly MA and Abd El-Salam NA, , *Planta Medica*, 80 (10), page 808, (2014).
- Published as abstract in 2014 Annual Meeting of the American society of pharmacognosy held in conjunction with the 14th Oxford international conference on the science of botanicals , August 2nd- 6th ,2014, Oxford, MS.

- 2- Quantitative Determination of L-DOPA in Fresh Pericarp of *Vicia faba* L. Cultivar Rena Mora by a Validated HPTLC method. **Rasha M. Abu El-Khair**, Ahmed A. Seif El-Din, Masouda E. Amer, Fathy K. El-Fiky and Nabil A. Abd El-Salam
- Published as poster in the First international conference of pharmaceutical and medical sciences, Faculty of Pharmacy, Suez Canal University, April 2017
- 3- The Protective Effect of Egyptian *Withania somnifera* Against Alzheimer's Disease, Rahma SR. Mahrous, Doaa A. Ghareeb, Hoda M. Fathy, **Rasha M. Abu El- Khair** and Abdallah A. Omar, Medicinal & Aromatic Plants, Vol 6, Issue 2, 1000285, 2017
- 4- Total Polyphenolic Content and Antioxidant Activity of *Silybum marianum* Cultures Grown on Different Growth Regulators. Hattem Mekky, Samah El-Sohafy, **Rasha Abu- El- Khair** and Amr El- Hawiet, International Journal of Pharmaceutical Sciences, Vol 9, Issue 4, 44- 47, 2017
- 5- Validated thin-layer chromatographic method for the identification and monitoring of the effect of the extraction method on the yield and phytochemical constituents of Egyptian *Withania somnifera* leaves, Rahma S. R. Mahrous, Hoda M. Fathy, **Rasha M. Abu EL-Khair**, Abdallah A. Omar, *journal of separation sciences*.41, (2017).
- 6- Egyptian *Withania somnifera* L., Chemotype and Comparative *in vitro* Cytotoxic Activity of Extracts and Isolated Withanolides. Rasha A. Nassra, Rahma Sr. Mahrous, Hoda M. Fathy, **Rasha M. Abu El-Khair** and Abdallah A. Omar, *European Journal of Medicinal Plants*. 21(3): 1-12, (2017)
- 7- Rapid discrimination of different Apiaceae species based on HPTLC fingerprints and targeted flavonoids determination using multivariate image analysis, Eman Shawky and **Rasha M. Abu El-Khair**, *Phytochemical Analysis*, DOI:10.1002/pca. 2749, Feb. (2018)
- 8- Chemical constituents of Egyptian *Withania somnifera* leaves and fruits and their anticholinesterase activity, Rahma S. Mahrous, Hoda M. Fathy, **Rasha M. Abu El-Khair** and Abdallah A. Omar, *Journal of Mexican Chemical Society*, 63(4), 208-217, (2019)
- 9- NIR spectroscopy multivariate analysis for rapid authentication, detection and quantification of common plant adulterants in saffron (*Crocus sativus* L.) stigmas , Eman Shawky, **Rasha M. Abu El-Khair**, Dina A. Selim, , *LWT - Food Science and Technology*, 122, (2020) 109032
- 10- Anticoagulant activity screening of an in-house database of natural compounds for discovering novel selective factor Xa inhibitors; A combined

In-silico and In-Vitro approach, Reham S.Ibrahim, Rahma SR. Mahrous, Hoda M. Fathy, Abdallah A. Omar, **Rasha M. Abu El-Khair**, *Medicinal Chemistry Research*, 29, pages707–726 (2020)

- 11- Detection and quantification of active pharmaceutical ingredients as adulterants in *Garcinia cambogia* slimming preparations using NIR spectroscopy combined with chemometrics, Dina A. Selim, Eman Shawky, **Rasha M. Abu El- Khair**, *Records of Pharmaceutical and Biomedical Sciences*, 4 (1),62- 71, (2020)
- 12- Qualitative GC-MS analysis and antimicrobial activity of volatiles from *Carthamus lanatus* (L.) growing in Egypt, **Rasha M. Abu El- Khair**, Mariam Y. Ghanem, Gamal A. Omran, Ahmed A. Seif El-Din, *Records of Pharmaceutical and Biomedical Sciences*, 4 (1), 6- 12, (2020)
- 13- Biologically guided isolation and ADMET profile of new factor Xa inhibitors from *Glycerrhiza glabra* roots using *in vitro* and *in silico* approaches, Reham S. Ibrahim, Rahma SR. Mahrous, **Rasha M. Abu El-Khair**, Abdallah A. Omar and Hoda M. Fathy, *RSC Advances*, (11), (2021)
- 14- Investigative study of *Withania somnifera* family Solanaceae cultivated in Egypt to be used for pharmaceutical industry: Thesis Abstract, May 2021, *International Journal of Cancer and Biomedical Research* 5:40-40, DOI: [10.21608/jcbr.2021.58552.1124](https://doi.org/10.21608/jcbr.2021.58552.1124)
- 15- Investigation of the effect of selected edible and medicinal plants on *in- vitro* blood coagulation profile, Hoda M. Fathy, Rahma SR. Mahrous, **Rasha M. Abu El-Khair**, Abdallah A. Omar and Reham S. Ibrahim, *Kuwait journal of science*, November (2021), DOI: [10.48129/kjs.15505](https://doi.org/10.48129/kjs.15505)
- 16- Identification of the discriminatory chemical markers of different grades of Sri Lankan white, green and black tea (*Camellia sinensis* L.) via metabolomics combined to chemometrics, Dina A. Selim, Eman Shawky, **Rasha M. Abu El-Khair**, *Journal of Food Composition and Analysis*, February (2022), DOI: [10.1016/j.jfca.2022.104473](https://doi.org/10.1016/j.jfca.2022.104473)

VI- Conferences and Training courses:

- Attendance of Faculty and Leadership Development Project FLDP courses (18 courses).
- Attendance of the Biovision conference 2010, Alexandria, Egypt.
- Attendance of workshop about Student Assessment. Faculty of Pharmacy, Alexandria University, 13 May 2009, Alexandria, Egypt.
- Poster presentation at the First international conference of pharmaceutical and medical sciences, Faculty of Pharmacy, Suez Canal University, April 2017, Cairo, Egypt.
- Attendance of workshop about " Cell Press Journals", held by Elsevier, Faculty of Pharmacy, Alexandria University, 9 July 2018, Alexandria, Egypt.

- Poster presentation at Pharmaceutica 2019 conference, July 15-17, 2019, London, UK.
- Attendance of the first international conference of Faculty of Pharmacy, Alexandria University, November 2019, Alexandria, Egypt.
- Poster presentation at the Second international conference of Faculty of Pharmacy, Pharos University, March 2020, Alexandria, Egypt.

- Attendance of online workshop about "Moodle training", 9-10/7/2020, Faculty and Leadership Development Center, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt.

- Attendance of online webinar about "Advanced Lab drying techniques" held by BUCHI, India, 23/7/2020.

- Attendance of online workshops (4 workshops), Faculty and Leadership Development Center, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt.

VII- ADDITIONAL INFORMATION

Technical Experiences and Skills:

[A] Phytochemical:

- Extraction and fractionation of plants using hydro-alcoholic method.
- Isolation and purification of materials from plant extracts using the different methods of chromatography such as:
 - 1- Thin layer chromatography (TLC).
 - 2- Column chromatography.
 - 3- Preparative thin layer chromatography (PTLC).
 - 4- High performance liquid chromatography (HPLC).
 - 5- High performance Thin layer chromatography (HPTLC).
- Identification of the purified materials through interpretation of the compound's spectral data such as:
 - 1- Ultra violet spectra.
 - 2- Infra red spectra.
 - 3- Mass spectroscopy.
 - 4- Nuclear magnetic resonance (H, ¹³C and 2 dimensional).
- Detection of the pharmacological effects of plant extracts and purified compounds on dissected animal organs.
- Chemometric Analytical techniques
- Docking techniques and software.
- UPLC/ MS and GC/MS analytical techniques.

[B] Instruments:

- Perkin Elmer UV/VIS spectrometer.
- UV Spectrophotometer (spectroscopy),
- 500MHz NMR instrument.
- Camag HPTLC Equipment.

FIELDS OF INTEREST

- Plant tissue culture and genetic engineering of medicinal plants.
- Extraction and isolation of secondary metabolites.

PRESENTATIONS

February 2005 COSY NMR Experiment, Department of pharmacognosy, Faculty of Pharmacy, Alexandria University, Alexandria.
(Seminar)

August 2008 Flavonoids as antioxidants, Department of pharmacognosy, Faculty of Pharmacy, Alexandria University, Alexandria. (Seminar)

October 2016: Research code of ethics, Faculty of pharmacy, Alexandria University, Alexandria.

July 2017: Recent advances in natural products research, Faculty of Medicine, Alexandria University, Alexandria.

April 2017 Poster presentation at the First international conference of pharmaceutical and medical sciences, Faculty of Pharmacy, Suez Canal University, April 2017, Cairo, Egypt

July 2019 Poster presentation at Pharmaceutica 2019 conference, July 15-17, 2019, London, UK.

March 2020 Poster presentation at the Second international conference of Faculty of Pharmacy, Pharos University, March 2020, Alexandria, Egypt.

STUDENT ACTIVITIES:

a- Faculty of Pharmacy, Alexandria University:

- Academic advisor for 25 clinical pharmacy students.
- Summer training supervisor for groups of third year students.
- Academic advisor for the student's educational Project "Pharmpedia" (2017)
- Leader for "Athar" student family (2018)

b- College of Pharmacy, Arab academy for Science, Technology and Maritime transport:

- Academic advisor for 25 B- Pharm students.
- Academic supervisor for three groups of students participating in DUPHAT 2020, Dubai, UAE.

SCIENTIFIC ACTIVITIES:

- Associate editor of Advances in Medical, Pharmaceutical and Dental Research Journal.
- Reviewer in Records of Pharmaceutical and Biomedical Sciences Journal.