



Ahmed Mohamed Ali Ahmed Hemdan

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EDUCATION

Post-doc November 2017 — June 2018
University Medical Center- Hamburg Eppendorf, Hamburg University, Hamburg,
Germany

Ph.D in Pharmaceutical Analytical Chemistry Sep. 2011 — Aug. 2014
Faculty of Pharmacy - Ain Shams University

M.Sc Pharmaceutical Analytical Chemistry Sep. 2007 — Feb. 2011
Faculty of Pharmacy - Ain Shams University

B.Sc Pharmaceutical Sciences Sep. 2001 — May 2006
Faculty of Pharmacy - Ain Shams University
Excellent with honor.

WORK EXPERIENCE

Ahram Canadian University Sep. 2022 — present
Acting Vice-Dean for Education and Student Affairs

Ahram Canadian University Jan. 2022 — Present
Deputy Director - Quality Assurance Centre

Faculty of Pharmacy - Ahram Canadian University July. 2019 — July. 2020
Director of Quality Assurance Unit

Faculty of Pharmacy - Ahram Canadian University Nov.2019 — Present
Associate Professor

Faculty of Pharmacy - Ahram Canadian University Sep. 2018 — Dec. 2018
Coordinator for NAQAAE Visit for accreditation

University Medical Center- Hamburg Eppendorf, Hamburg University, Hamburg, Germany November 2017 — June 2018
Post-doc

Faculty of Pharmacy - Ahram Canadian University Sep. 2014 — Oct. 2019
Lecturer

Faculty of Pharmacy - Ain Shams
University

Summer 2015

Lecturer for Credit hour system students

Faculty of Pharmacy - Ahram
Canadian University

Feb. 2011 — July 2014

Assistant lecturer

Faculty of Pharmacy - Ahram
Canadian University

March 2007 — Feb. 2011

Teaching assistant

SCHOLARSHIPS

DAAD: Post-doc - University medical center - Hamburg University - Germany
(2017/2018)

NAQAAE AND CONSULTING

- External Auditor - NAQAAE from April 2022 - Present

*** Workshop entitled "Program Self Evaluation" by NAQAAE in Faculty of
Pharmacy Ahram Canadian University (Feb. 2023)**

*** Workshop entitled "Exam and Assessment Systems" by NAQAAE in Faculty of
Pharmacy Ahram Canadian University (Feb. 2023)**

*** Workshop entitled "Program and Courses Specifications" by NAQAAE in
Faculty of Pharmacy Ahram Canadian University (Feb. 2022)**

*** Workshop entitled "Teaching and Learning Strategies" by NAQAAE in Faculty
of Pharmacy Ahram Canadian University (Feb. 2022)**

*** Workshop entitled "Strategic Planning" by NAQAAE in Faculty of Pharmacy
Ahram Canadian University (Feb. 2022)**

*** Workshop entitled "How to Apply Competency-Based Pharmacy NARS" by
NAQAAE in Tiba Rose (Jan. 2022)**

*** Workshop entitled "Exams systems and students' assessment methods" by
NAQAAE in Faculty of Pharmacy Ahram Canadian University (Feb. 2017)**

*** Workshop entitled "External Evaluation Protocols: Practical Workshop for H.E.
institutes" by NAQAAE in Faculty of Pharmacy Ahram Canadian University
(Feb. 2016)**

*** Workshop entitled "Education programs and courses specifications and
evaluation of learning outcomes for H.E. institutes" by NAQAAE in Faculty of
Pharmacy Ahram Canadian University (Sep. 2016)**

*** Workshop entitled "Educational programs and courses specifications and
evaluation of learning outcomes" by NAQAAE in Faculty of Pharmacy Ahram
Canadian University (Sep. 2014)**

*** Workshop entitled "Strategic planning for higher education institutes" by
NAQAAE in Faculty of Pharmacy Ahram Canadian University (Sep. 2013)**

ASSOCIATIONS OF ARAB UNIVERSITIES

*** Workshop entitled "Qualifying an external auditor for academic programs in
accordance with the standards of the Association of Arab
Universities" Association of Quality Assurance Administrations - Association of**

Arab Universities (July 2022)

* 4th international conference "Towards smart quality assurance systems in Arab universities" Association of Quality Assurance Administrations - Association of Arab Universities (July 2022)

TEACHING EXPERIENCE AND ACADEMIC ACTIVITIES

1- Teaching: (Last teaching evaluation was = 96%)

- Pharmaceutical Analytical Chemistry - 1 (Qualitative Chemical Analysis)
- Pharmaceutical Analytical Chemistry - 2 (Quantitative Chemical Analysis)
- Instrumental Analysis
- Drug Quality Control
- Analysis of food and cosmetics
- Participation in Handouts preparation for the department Courses.
- Practical parts supervision for the department courses

2- Extracurricular activities:

- External Auditor - NAQAAE
- Deputy Director -Quality Assurance Centre
- Director of Central Research Lab
- Director of Quality Assurance Unit
- Coordinator for NAQAAE Visit for accreditation
- Supervision of summer training for 3rd and 4th year students
- Assessment of the students by different types of exams (Written, Oral, Practical, assignments...)
- Supervisor of Control Unit- Faculty of Pharmacy students..
- A member in the quality assurance unit.
- External evaluator for Oral exams.
- Active family coordinator for different types of students' activities

3- Research activities:

- Publication of many scientific research papers either derived from scientific thesis or not, in specialized scientific journals (as shown in the curriculum vitae). The number of scientific researches is 34 so far, as shown in the attached research list.

- 2 papers form my Master's thesis
- 9 papers from my Ph.D thesis
- 23 papers after the Ph.D.

(only 7 from Master student supervision)

(other 16 not derived from supervising master's or Ph.D. thesis)

First author in 8 published papers.

- Organizing committee member in the 1st and 2nd international pharmaceutical conferences - faculty of pharmacy - Ahram Canadian University.

- Post-doc research scholarship (DAAD) from Nov. 2017 till June 2018 (Hamburg

University - Germany)

- 3 Master and 1 PhD students supervision, 1 master student has been awarded the degree.

- Reviewer for many international Journals:

- Journal of Separation Science

- AOAC

- Analytical chemistry letters

- Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy

- European journal of Chemistry

- Journal of chromatographic science

4- Committees:

- Member of the committee for preparation of ACU strategic plan 2022

- Member of the committee for renewing the accreditation of the Bachelor of Pharmacy degree

5- Workshops and Seminars:

* Workshop entitled "Qualifying an external auditor for academic programs in accordance with the standards of the Association of Arab Universities" Association of Quality Assurance Administrations - Association of Arab Universities (July 2022)

* Workshop entitled "Program and Courses Specifications" by NAQAAE in Faculty of Pharmacy Ahram Canadian University (Feb. 2022)

* Workshop entitled "Teaching and Learning Strategies" by NAQAAE in Faculty of Pharmacy Ahram Canadian University (Feb. 2022)

* Workshop entitled "Strategic Planning" by NAQAAE in Faculty of Pharmacy Ahram Canadian University (Feb. 2022)

* Workshop entitled "How to Apply Competency-Based Pharmacy NARS" by NAQAAE in Tiba Rose (Jan. 2022)

* Workshop entitled "Marketing Basics" Faculty of Pharmacy - Ahram Canadian University. (December 2019)

* Workshop entitled "Leadership and Team building" Faculty of Pharmacy - Ahram Canadian University. (October 2019)

* Workshop entitled "Leadership and Governance" Faculty of Pharmacy - Ahram Canadian University. (August 2019)

* Workshop entitled "Disposable copper-based electrochemical sensor for anodic stripping voltammetry" Faculty of Pharmacy - Ahram Canadian University. (March 2019)

* Workshop entitled "Scientific publication" - Quality Assurance Unit- Faculty of Pharmacy - Ahram Canadian University. (March 2019)

* Workshop entitled "Graphical Representation of Concentration as a novel Technique in Spectrophotometric Determination of Drug Substances in Formulation" Faculty of Pharmacy - Ahram Canadian University. (January 2019)

* Workshop entitled "Comparative Glycomics using LC-Tandem mass spectrometry" Faculty of Pharmacy - Ahram Canadian University. (November 2018)

- * Workshop entitled "Gap analysis between B.Sc. of Pharmacy – ACU and the new NARS" Quality Assurance Unit- Faculty of Pharmacy - Ahram Canadian University. (November 2018)
- * Seminar entitled "SCIEX advanced LC/MSMS and CE technology and applications" by ARABIAN GROUP FOR INTEGRATED TECHNOLOGIES (Agitech) at Fairmont Nile City Hotel (Sep. 2018)
- * Workshop entitled "Strategic planning" Quality Assurance Unit- Faculty of Pharmacy - Ahram Canadian University. (October 2018)
- * Workshop entitled "Program Specification" Quality Assurance Unit- Faculty of Pharmacy - Ahram Canadian University. (Oct. 2017)
- * Workshop entitled "Exams systems and students' assessment methods" by NAQAAE in Faculty of Pharmacy Ahram Canadian University (Feb. 2017)
- * Workshop entitled " Forming and building a team work according to the concept of merit" in cooperation with Qalyobyha pharmacists syndicate (Nov. 2016)
- * Workshop entitled "Education programs and courses specifications and evaluation of learning outcomes for H.E. institutes" by NAQAAE in Faculty of Pharmacy Ahram Canadian University (Sep. 2016)
- * Workshop entitled "Research design, assessment, and write up" USAID "LOTUS SCHOLARSHIP PROGRAM" - in cooperation with American University in Cairo - Faculty of Pharmacy - Ahram Canadian university (May 2015)
- * Workshop entitled "Blended learning" USAID "LOTUS SCHOLARSHIP PROGRAM" - in cooperation with American University in Cairo - Faculty of Pharmacy - Ahram Canadian university (Dec. 2014)
- * Workshop entitled "Education programs and courses specifications and evaluation of learning outcomes" by NAQAAE in Faculty of Pharmacy Ahram Canadian University (Sep. 2014)
- * Workshop entitled "Road to accreditation - pharmacy NARS and program ILO's" - Quality Assurance Unit -Faculty of Pharmacy - Ahram Canadian university (March 2014)
- * Workshop entitled "Strategic planning for higher education institutes" by NAQAAE in Faculty of Pharmacy Ahram Canadian University (Sep. 2013)
- * Seminar entitled " New advances n LC/MSMS - New solutions for Bio-analysis and clinical applications" by ELMEHY Engineering company - Waters (May 2013)

6- Environmental activities:

- An organizing committee member in Ibn Sina Medical Convoy in Mansoreya
- A visit to 57357 cancer hospital with a group of faculty of pharmacy students (May 2014)
- An organizing committee member in Ibn Sina Medical Convoy in Helwan (Feb. 2013)

CONFERENCES

- 4th international conference "Towards smart quality assurance systems in Arab universities" Association of Quality Assurance Administrations - Association of Arab Universities (July 2022)
- Best Poster Award in 2nd international pharmaceutical conference - Faculty of

Pharmacy - Ahram Canadian University - (November 2018)

- Best published research Award in 2nd international pharmaceutical conference - Faculty of Pharmacy - Ahram Canadian University - (November 2018)

- A speaker in World Congress on Chromatography, Amsterdam, Netherlands - (September 2016)

- Poster presentation in World Congress on Chromatography, Amsterdam, Netherlands - (September 2016)

- Best Innovation Award in AINAC conference, AMMAN, Jordan - (December 2016)

- Attended the 1st and 2nd ACU International Conferences of Pharmaceutical Sciences On New Trends in Pharmaceutical and Medical Research, NTPMR - (May 2016, Nov. 2018)

**RESEARCH
INTERESTS AND
GRANTS**

Research Interests:

- Liquid chromatographic techniques for analysis of Active Pharmaceutical Ingredients in dosage forms or biological body fluids.

- UPLC hyphenated techniques with tandem mass spectrometry for full characterization of drugs and their metabolites in body fluids.

- Determination of drug content by different analytical techniques including UV Spectrophotometry with or without chemometric assistance.

Grants:

DAAD: Post-doc - University medical center - Hamburg University - Germany (2017/2018)

PUBLICATIONS

- Publication of many scientific research papers either derived from scientific thesis or not, in specialized scientific journals. The number of scientific researches is 34 so far, as shown in the attached research list.

- 2 papers form Master's thesis

- 9 papers from Ph.D thesis

- 23 papers after the Ph.D.

(only 7 from Master student supervision)

(other 16 not derived from supervising master's or Ph.D. thesis)

First author in 8 published papers.

1- Naser F. Al-Tannak, Bashayer J. Al-Shatti, Abdullah S Al Ali, A. Hemdan. "Quality by Design Approach for a Multi-component Quantification Using HPLC-PDA and HPLC-MS: Application to Dosage Form and Biological Body Fluids" Separations. Accepted Manuscript.

2- Younis, N. A., Hemdan, A., Zafer, M. M., Abd-Elsalam, W. H., & Abouelatta, S. M. (2022). Standardization and quantitative analysis of Araucaria Heterophylla extract via an UPLC-MS/MS method and its formulation as an antibacterial phytonanoemulsion gel. Scientific Reports, 12(1), 1-14.

3- Hafez HM, Abdel-Halim M, Hemdan A, Hammam MA. Kinetic degradation

study for the first licenced anti-influenza polymerase inhibitor, baloxavir marboxil, using HPLC-MS. *Journal of Separation Science*. (2022)

4- Al-Tannak, N. F., Phillips, O. A., Kamal, H. J., & Hemdan, A. (2022). Development and validation of stability-indicating assay method for a novel oxazolidinone (PH-192) with anticonvulsant activity by using UHPLC-QToF-MS. *Molecules*, 27(3), 1090.

5- Hemdan, Ahmed, Naser F. Al-Tannak, and Ekram H. Mohamed. "Development of a multivariate model with desirability-based optimization for determination of atenolol and hydrochlorothiazide by eco-friendly HPLC method with fluorescence detection." *Journal of Separation Science* 45.4 (2022): 824-831.

6- Al-Tannak, Naser F., and Ahmed Hemdan. "Eco-Friendly Separation of Antihyperlipidemic Combination Using UHPLC Particle-Packed and Monolithic Columns by Applying Green Analytical Chemistry Principles." *Separations* 8.12 (2021): 246.

7- Hemdan, Ahmed M. "Mathematical Modeling for HPLC Separation and Quantification of an Anti hypertensive Combination by Response Surface Methodology." *Journal of AOAC International* 105.2 (2022): 623-629.

8- A. Hemdan, Maya S. Eissa. "Simultaneous chromatographic analysis of Sofosbuvir/Ledipasvir in their combined dosage form: an application to green analytical chemistry. *Journal of Analytical Science and Technology* 10:39 (2019): 1-12.

9- Magdy, R., Hemdan, A., Fares, N. V., & Farouk, M. "Univariate calibrations with or without chemometric assistance for determination of drugs lacking peak maxima in their zero-order profiles." *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 206 (2019): 207-215.

10- Magdy, R., Hemdan, A., Fares, N. V., & Farouk, M. "Determination of amlodipine and atorvastatin mixture by different spectrophotometric methods with or without regression equations." *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 210 (2019): 203-211.

11- Magdy, R., Hemdan, A., Fares, N. V., & Farouk, M. "Stepwise Optimization Strategies Utilizing Recent Univariate and Multivariate Methods for Determination of the Partially Overlapped Mixture Perindopril and Indapamide." *Analytical Chemistry Letters* 8.4 (2018): 486-502.

12- Hemdan, Ahmed, Ragaa Magdy, and Maha Farouk. "Response surface design as a powerful tool for the development of environmentally benign HPLC methods for the determination of two antihypertensive combinations: Greenness assessment by two green analytical chemistry evaluation tools." *Journal of separation science* 41.16 (2018): 3213-3223.

13- Magdy, R., Hemdan, A., Fares, N. V., & Farouk, M "Simultaneous spectrophotometric determination of drugs lacking peak maxima in their zero-order profiles by graphical or statistical representation of data." *European Journal of Chemistry* 9.3 (2018): 194-201.

14- Al-Tannak, Naser F., Ahmed Hemdan, and Maya S. Eissa. "Development of a Robust UPLC Method for Simultaneous Determination of a Novel Combination of Sofosbuvir and Daclatasvir in Human Plasma: Clinical Application to Therapeutic Drug Monitoring." *International journal of analytical chemistry* 2018 (2018):1-9

15- Hemdan, A., Ragaa Magdy, and Maha Farouk. "Comparison between cyano and C-18 columns for separation of trandolapril and verapamil with ESI-Q-ToF-MS characterization of acidic and basic degradation products: stability indicating assay methods." *Chromatographia* 81.8 (2018): 1163-1172.

- 16- Hemdan, A. & Tawakol, S.M. HPLC–UV Chromatographic Methods for Detection and Quantification of Undeclared Withdrawn Synthetic Medications in Counterfeit Herbal Medicines with Confirmation by HPLC–PDA and Mass Spectrometry. *Chromatographia*. 81(5) (2018): 777-783.
- 17- Magdy, R., El-Khatib, A. H., Hemdan, A., Elaziz, O. A., Farouk, M., & Linscheid, M. W. Comparative pharmacokinetics of trandolapril, its active metabolite, and verapamil in human plasma of Egyptian population using HPLC–MS/MS. *Drug Testing and Analysis*. 10(7) (2018): 1158-1167.
- 18- A. Hemdan, Omar Abdel-Aziz. "Application of a Fast Separation Method for Anti-diabetics in Pharmaceuticals Using Monolithic Column: Comparative Study with Silica Based C-18 Particle Packed Column". *Journal of Chromatographic Science*, 2018, Vol. 56, No. 4, 351–357.
- 19- Naser Al-Tannak, A. Hemdan. "UPLC-QToF-MS Analysis of Trandolapril and Verapamil in Dosage Form and Spiked Human Plasma Using Solid Phase Extraction: Stability Indicating Assay Method". *Current Pharmaceutical Analysis*, 14(6) (2018): 595-603.
- 20- Hemdan, A., and Adel M. Michael. "Kinetic Profiling of the Hydrolytic Reaction of Benazepril: Metabolic Pathway Simulation." *Journal of AOAC International* 101 (4) (2018): 1009-1013.
- 21- Hemdan, A. "Complete Evaluation of Recent Smart Spectrophotometric Methods for Determination of Highly Overlapped Combinations Through Their Zero Order Profiles." *Analytical Chemistry Letters* 7 (4) (2017): 479-496.
- 22- Shereen M. Tawakkol, Mohamed B. El-Zeiny, A. Hemdan. Full spectrum and selected spectrumbased chemometric methods for the simultaneous determination of Cinnarizine and Dimenhydrinate in laboratory prepared mixtures and pharmaceutical dosage form. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*. 173 (2017) 892 – 896
- 23- A. Hemdan. Development and Validation of Different Methods Manipulating Zero Order and First Order Spectra for Determination of The Partially Overlapped Mixture Benazepril and Amlodipine: A Comparative Study. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*. 164 (2016) 52 – 60
- 24- Omar Abd Elaziz, M. Farouk, Shereen M. Tawakkol, A. Hemdan & Mostafa A. Shehata. Different Approaches in Determination of Lercanidipine in Presence of its Degradation Products by Stability Indicating Univariate and Multivariate Calibrations. *Analytical Chemistry Letters*, 6(4), 2016, 313-325.
- 25- Omar AE, Farouk M, Shereen M. Tawakkol, Hemdan. A and Mostafa AS. Development of a Validated Stability Indicating Rp Hplc Method for Simultaneous Determination of Benazepril, Benazeprilat, and Amlodipine in Presence of their Degradation Products and Application to Pharmaceutical Formulatin and Human Plasma. *Analytical Chemistry-An Indian Journal*. 16 (13) 2016.
- 26- Shereen M. Tawakkol, M. Farouk, Omar Abd Elaziz , A. Hemdan, Mostafa Shehata. Stability Study of the Calcium Channel Blocker Lercanidipine and its Determination by Reversed Phase Chromatography in Pharmaceutical Formulation and Plasma. *Analytical Chemistry Letters*, 4(4), 2014, 255 – 266
- 27- Omar Abd Elaziz, M. Farouk, Shereen Tawakkol, A. Hemdan, Mostafa Shehata. Liquid chromatography-electro spray ionization tandem mass spectrometry for simultaneous determination of Moexipril and its active metabolite

Moexiprilat in human plasma. European Journal of Chemistry, 5(4), 2014, 662 – 667

28- M. Farouk, Omar Abd Elaziz, Shereen M. Tawakkol, A. Hemdan, Mostafa A. Shehata. Comparative study between univariate spectrophotometry and multivariate calibration as analytical tools for quantitation of Benazepril alone and in combination with Amlodipine. Spectrochimica acta Part A.123 (2014), 473-481

29- A. Hemdan, M. Farouk, Omar Abd Elaziz, Shereen M. Tawakkol, Mostafa A. Shehata. Simultaneous Determination of Benazepril and Hydrochlorothiazide in their binary mixture by Spectrophotometric method and Stability Indicating RP-HPLC Of the mixture in presence of Benazeprilat in Dosage Forms and its Application to Human Plasma. Analytical Chemistry-An Indian Journal. 14 (5) 2014, 183-193.

30- Shereen M. Tawakkol, M. Farouk, Omar Abd Elaziz, A. Hemdan, Mostafa A. Shehata. Comparative study between univariate spectrophotometry and multivariate calibration as analytical tools for simultaneous quantitation of Moexipril and Hydrochlorothiazide. Spectrochimica acta Part A.133 (2014), 300-306

31- A. Hemdan, M. Farouk, Omar Abd Elaziz, Shereen M. Tawakkol, Mostafa A. Shehata. Stability study of the angiotensin converting enzyme inhibitor moexipril and its simultaneous determination with hydrochlorothiazide and moexiprilat by reversed phase chromatography in pharmaceutical formulation and plasma. Analytical chemistry- An Indian Journal, 14 (10) 2014, 369-377

32- M. Farouk, Omar Abd Elaziz, Shereen M. Tawakkol, A. Hemdan, M. Shehata. Liquid Chromatography-Electro Spray Ionization Tandem Mass Spectrometry for Simultaneous Determination of Amlodipine, Benazepril and its Active Metabolite Benazeprilat in Human Plasma. Analytical Chemistry Letters, 4(1), 2014, 1-13.

33- M. Farouk, O. Abd EL-Aziz, A. Hemdan, M. Shehata. Simple Novel Spectrophotometric and Spectrofluorimetric Methods for Determination of Some Antihypertensive Drugs. Journal of American Science, 7(1) 2011, 300-312.

34- M. Farouk, O. Abd ELAziz, A. Hemdan, M. Shehata. Novel Validated Chromatographic Method for Determination of Some Anti-hypertensive Drugs. Journal of American Science, 6(11), 2010, 476-486.

HONORS AND AWARDS

*** Certificate for the best published research in 2018 in 2nd international Pharmaceutical Conference -Faculty of Pharmacy - Ahram Canadian University.**

*** Certificate for best poster in 2018 in 2nd international Pharmaceutical Conference -Faculty of Pharmacy - Ahram Canadian University.**

*** Certificate of appreciation, Poster presentation in World congress on Chromatography, Amsterdam, Netherlands**

*** Certificate of appreciation, Speaker in World congress on Chromatography, Amsterdam, Netherlands**

*** First Position, Speaker in AINAC conference, Amman, Jordan**

*** Certificate of attendance for 1st international pharmaceutical conference - Faculty of Pharmacy - Ahram Canadian University**

*** Certificates for attending several quality assurance workshops**

*** Ph.D Faculty of Pharmacy, Ain Shams University**

*** M.Sc Faculty of Pharmacy, Ain Shams University**

*** B.Sc Faculty of Pharmacy, Ain Shams University**

***IBT (Internet based TOEFL): with overall grade (98)**

***Holding the ICDL certificate.**

***ITP (local TOEFL) with overall grade 610.**

***GRE certificate with overall grade 1040.**

LANGUAGES

-Arabic: Mother tongue.

-English: Excellent (written & spoken).

- Deutsch: A2