

Curriculum Vitae

A. Composition:

Name: Amira Fawzy El-Yazbi

Date of Birth: August 6th, 1981

Nationality: Egyptian

Higher Education:

2008-2013 Department of Chemistry, University of Alberta.

1998-2007 Faculty of Pharmacy, Alexandria University.



Qualifications:

- BPSc, Distinction Honours, 2003, Faculty of Pharmacy, Alexandria University, Egypt. Graduated as the top third of the class.
- M.Sc. in Analytical Chemistry, 2007, Faculty of pharmacy, Alexandria University, Egypt.
- Ph.D. in Analytical Chemistry, 2013, Department of Chemistry, University of Alberta, Canada.
- Completed Level One and Level Two of the Graduate Teaching and Learning Program (GTL program) at the University of Alberta, Canada, March 2013.

Previous employment and appointments held:

- **August 2016 – June 2017**
Visiting professor of Analytical Chemistry- Department of Chemistry, University of Alberta, Edmonton - Canada.
- **September 2014 – June 2015**
Visiting professor of Analytical Chemistry, Pharos University, Alexandria, Egypt.
- **November 2013 – October 2018**
Lecturer of Analytical Chemistry, Faculty of Pharmacy, Alexandria University, Egypt
- **March – August 2013**
Post-doctoral Fellow, Dept of Chemistry, University of Alberta, Canada.
- **January 2008 – March 2013**
Teaching Assistant, Dept of Chemistry, University of Alberta, Canada.
- **January 2008 – March 2013**
Teaching Assistant, Dept of Chemistry, University of Alberta, Canada.
- **January - December 2007**
Assistant Lecturer, Dept of Analytical Chemistry, Faculty of Pharmacy,

Alexandria University, Egypt.

- **January - July 2004**
Community Pharmacist, El-Emary Charity Hospital, Alexandria, Egypt.
- **2003 - 2006**
Research and Teaching assistant, Dept of Analytical Chemistry, Faculty of Pharmacy, Alexandria University, Egypt.

Present Appointment:

- Associate professor of Analytical Chemistry, Faculty of Pharmacy, Alexandria University, Egypt
- Visiting professor of Analytical Chemistry, Department of Chemistry, University of Alberta, Canada

B. Teaching:

Very extensive teaching profile including skill development and evaluation. I taught at Faculties of Pharmacy and Science in University of Alberta, Alexandria University, Pharos University and College of Pharmacy in Arab Academy for Science, Technology & Maritime Transport. All the details about my teaching philosophy and courses taught are available in a teaching dossier upon request.

C. Academic and Research Standing:

Research interests:

Developing analytical methods for the analysis of different pharmaceutical dosage forms, stability studies and pharmacokinetics profile for newly developed drugs and bioanalytical studies of the of newly introduced drugs and its effect on nucleic acids. Developing tools for probing and quantification of nucleic acid damage upon exposure to various damaging effects including pharmaceuticals.

Full-length peer reviewed papers:

Published:

1. **Amira F. El-Yazbi** "Green Capillary Electrophoretic Method for the Simultaneous Analysis of saxagliptin hydrochloride and linagliptin" *Microchemical Journal* 164 (2021) 106073
2. **Amira F. El-Yazbi**, Nourhan E. Elashkar, Karim M. Abdel-Hay, Wael Talaat and Hytham M. Ahmed "Eco-friendly analytical methods for the

- determination of compounds with disparate spectral overlapping: application to antiviral formulation of sofosbuvir and velpatasvir" *Journal of Analytical Science and Technology* (2021) 12 (1), 1-19
3. **Amira F. El-Yazbi**, FM Aboukhalil, EF Khamis, RM Youssef, MA El-Sayed "Simultaneous determination of Mometasone Furoate and salicylic acid in complex matrix using green analytical method" *Microchemical Journal* (2021) 163, 105900
 4. **Amira F. El-Yazbi**, Y Khalifa, MAW Elkhatib, AF El-Yazbi "Green Analytical Method for the Determination of Sofosbuvir, Ledipasvir, Ribavirin and Complex Silymarin Flavonoids Simultaneously in Biological Fluids" *Microchemical Journal* (2021) 105964
 5. **Amira F. El-Yazbi**, Karin M. Guirguis, Mona M. Bedair, Tarek S. Belal, "Validated specific HPLC-DAD method for simultaneous estimation of paracetamol and chlorzoxazone in the presence of five of their degradation products and toxic impurities *Drug Development and Industrial Pharmacy* 2020, 46 (11), 1853-1861
 6. Marwa H. El-Wakil, Sherine N. Khattab, Amira F. El-Yazbi, Nefertiti El-Nikhely, Ahmed Soffar, Hosam H. Khalil "New chalcone-tethered 1,3,5-triazines potentiate the anticancer effect of cisplatin against human lung adenocarcinoma A549 cells by enhancing DNA damage and cell apoptosis" accepted in *Bioorganic Chemistry* 105 (2020) 104393
 7. **Amira F. El-Yazbi**, Essam F. Khamis, Rasha M. Youssef, Mahmoud A. El-Sayed, Faten M. Aboukhalil "Green analytical methods for simultaneous determination of compounds having relatively disparate absorbance; application to antibiotic formulation of azithromycin and levofloxacin" accepted for publication in *Heliyon* 2020
 8. Eman I. El-Kimary, Hadeel A. Khalil, Tarek S. Belal, **Amira F. El-Yazbi** "Green stability-indicating capillary electrophoretic method for simultaneous determination of Lesinurad and Allopurinol in tablet dosage form: Degradation kinetics investigation" *Microchemical Journal* 158 (2020)105199
 9. **Amira F. El-Yazbi**, Karin M. Guirguis, Mona M. Bedair, Tarek S. Belal "Sensitive Spectrofluorimetric and Mass Spectroscopic Methods for the determination of Nucleic Acid Damage Induced By Photosensitized Anti-inflammatory Drugs: Comparative Study" accepted for publication in *Journal of Pharmaceutical and biomedical analysis*, (2020) 187, 113326
 10. Marwa A. Ragab, **Amira F. El-Yazbi**, Amr M. El-Hawiet "Fast economic electrochemical assay for vitamins and heavy mineral components in honey samples of different botanical origin" *Microchemical Journal* 155 (2020)104770

11. **Amira F. El-Yazbi**, Nourhan E. Elashkar, Karim M. Abdel-Hay, Wael Talaat⁴ and Hytham M. Ahmed "An Eco-friendly HPTLC-dual wavelength spectrodensitometric method for simultaneous determination of sofosbuvir and ledipasvir in biological and pharmaceutical samples: Stability indicating application" *Microchemical Journal* 154 (2020) 104584
12. Marwa H. El-Wakil, **Amira F. El-Yazbi**, Hayam M.A. Ashour, Mounir A. Khalil, Khadiga A. Ismai, Ibrahim M. Labouta "Discovery of a novel DNA binding agent via design and synthesis of new thiazole hybrids and fused 1,2,4-triazines as potential antitumor agents: Computational, spectrometric and *in silico* studies" *Bioorganic Chemistry* 90 (2019) 103089
13. Amira F. El-Yazbi, Karin M. Guirguis, Mona M. Bedair, Tarek S. Belal "Simple mix-and-read assays for the determination of baclofen in pharmaceutical formulation" *Heliyon* 5 (2019) e01854
14. **Amira F. El-Yazbi**, Eman I. El-Kimary, Rasha M. Youssef, "Hantzsch pre-column derivatization for simultaneous determination of alendronate sodium and its pharmacopoeial related impurity: Comparative study with synchronous fluorometry using fluorecamine" *Journal of Food and Drug Analysis* 27 (2019) 208 - 220
15. **Amira F. El-Yazbi**, Glen R. Loppnow, "Probing DNA damage induced by common antiviral agents using multiple analytical techniques " *Journal of Pharmaceutical and Biomedical Analysis* 157 (2018) 226–234
16. **Amira F. El-Yazbi**, Alysha Wong, Glen R. Loppnow, "A luminescent probe of mismatched DNA hybridization: Location and number of mismatches" *Analytica Chimica Acta* 994 (2017) 92-99
17. F. Ibrahim, **Amira F. El-Yazbi**, M. M. Wagih, M. A. Barary "Sensitive inexpensive spectrophotometric and spectrofluorimetric analysis of ezogabine, levetiracetam and topiramate in tablet formulations using Hantzsch condensation reaction" *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 184 (2017) 47–60
18. F. Ibrahim, **Amira F. El-Yazbi**, M. M. Wagih, M. A. Barary "Chromatographic determination of zonisamide, topiramate and sulpiride in plasma by a fluorescent 'turn-on' chemosensor "*Bioanalysis* 9(14) (2017) 1049–1064
19. **Amira F. El-Yazbi** "Comparative Validation of the Determination of Sofosbuvir in Pharmaceuticals by Several Inexpensive Ecofriendly Chromatographic, Electrophoretic, and Spectrophotometric Methods" *Journal of AOAC international* Vol. 100 (4), 2017.
20. **Amira F. El-Yazbi**, Amr El-Hawiet "Novel Chromatographic Methods for Simultaneous Quantification of Fish and Wheat Germ Oils Mixture in Pharmaceutical Dosage Forms " *Journal of Chromatographic Science*, 55 (2017) 497–507
21. F. Ibrahim, **Amira F. El-Yazbi**, M. A. Barary, M. M. Wagih, "Sensitive

- inexpensive HPLC determination of four antiepileptic drugs in human plasma: application to PK studies" **Bioanalysis** 8(21) (2016), 2219–2234
22. **Amira F. El-Yazbi**, M. M. Wagih, F. Ibrahim, M. A. Barary "Spectrofluorimetric Determination of Topiramate and Levetiracetam as Single Components in Tablet Formulations and in Human Plasma and Simultaneous Fourth Derivative Synchronous Fluorescence Determination of their Co-Administered Mixture in Human Plasma" **Journal of Fluorescence**, 26, (2016) 1225–1238.
 23. Eman I. El-Kimary, **Amira F. El-Yazbi** "An eco-friendly stability-indicating spectrofluorimetric method for the determination of two anticancer stereoisomer drugs in their pharmaceutical preparations following micellar enhancement: Application to kinetic degradation studies" **Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy**, 163, (2016) 145-153.
 24. **Amira F. El-Yazbi**, Rasha M. Youssef "Eco-friendly HPTLC method for assay of Eszopiclone in pharmaceutical preparation: Investigation of its water-induced degradation kinetics" **Anal. Methods**, 7 (2015), 7590 -95
 25. **Amira F. El-Yazbi**, Glen R. Loppnow "Detecting UV-induced nucleic-acid damage" **Trends in Analytical Chemistry** 61, (2014) 83–91
 26. **Amira F. El-Yazbi**, Glen R. Loppnow "Chimeric RNA-DNA Molecular Beacons for Quantification of UV-induced DNA damage" **Anal. Chem.** 85 (2013) 4321–4327
 27. **Amira F. El-Yazbi**, Glen R. Loppnow "Terbium fluorescence as a sensitive, inexpensive probe for UV-induced damage in nucleic acids" **Analytica Chimica Acta** 786 (2013) 116–123
 28. **Amira F. El-Yazbi**, Glen R. Loppnow " A Selective, Inexpensive Probe for UV- Induced Damage in Nucleic Acids" **Can. J. Chem.** 91 (2013) 320 -325.
 29. **Amira F. El-Yazbi**, Glen R Loppnow, "2-Aminopurine Hairpin Probes for the Detection of UV-induced DNA Damage" **Analytica Chimica Acta**, 726 (2012) 44- 49.
 30. **Amira F. El-Yazbi**, Alexandra Palech, and Glen R. Loppnow, "Initial Excited-State Structural Dynamics of 2 '-Deoxyguanosine Determined via UV Resonance Raman Spectroscopy" **Journal of Physical Chemistry A**, 115 (38) (2011) 10445- 10451.
 31. **Amira El-Yazbi**, Glen R Loppnow, "Locked nucleic acid hairpin detection of UV- induced DNA damage" **Canadian Journal of Chemistry**, 89 (3) (2011) 402-408.
 32. **Amira F. A. El-Yazbi**, Azza A. Gazy, and Mahmoud A. El-Sayed, "Derivative Spectrophotometric Methods for the Determination of Clidinium

Bromide in Binary and Ternary Mixtures" International Journal of Applied Chemistry, 6, (2010) 31-48.

33. "Analysis of some Selected Muscarinic Receptor Antagonists using Modern Instrumental Techniques", 2006, MSc. Thesis, Faculty of Pharmacy, University of Alexandria, Egypt.

Papers currently under peer-review:

1. "Universal analytical method for the quantification of different direct-acting antiviral combinations using a green HPLC method: Application to biological fluids and pharmaceutical formulations" under review in Journal of Separation science

Poster presentations:

1. "Quantification of Nucleic Acid damage induced by commonly used Pharmaceuticals using various Analytical techniques" **Amira F. El-Yazbi**, the 9th International Scientific Conference of Faculty of Pharmacy, Cairo University (FOPCU scientific conference), 25 -26 April 2018.
2. "Validated Colorimetric Methods for Determination of Baclofen in Tablets", Karin M. Guirguis, **Amira F. El-Yazbi**, Tarek S. Belal, Mona M. Bedair, the 9th International Scientific Conference of Faculty of Pharmacy, Cairo University (9th FOPCU scientific conference), 25 -26 April 2018.
3. "Sensitive Validated spectrophotometric and spectrofluorimetric determination of darifenacin hydrobromide in pure and pharmaceutical formulation using NBD-Cl reagent" Nourhan Esmat, **Amira F. El-Yazbi**, Karim Abdel-Hay, the 9th International Scientific Conference of Faculty of Pharmacy, Cairo University (9th FOPCU scientific conference), 25 -26 April 2018.
4. "Green CZE Method for the Simultaneous Analysis of Two Novel Dipeptidylpeptidase-4 Inhibitors with Metformin Hydrochloride mixtures in Pharmaceutical Preparations" Amira F. El-Yazbi, Pittcon 2018, Orlando, Florida, USA, February 2018.
5. "Comparative Validation of Sofosbuvir Determination in Pharmaceuticals by Several Chromatographic, Electrophoretic and Spectrophotometric Methods" Amira F. El-Yazbi, Pittcon 2016, Atlanta, Georgia, USA, March 2016.
6. "Spectrofluorimetric Quantification of Nucleic Acids Photo-damage Caused by some Non-steroidal Anti-inflammatory Drugs" Karin M. Guirguis, Amira F. El-Yazbi, Tarek S. Belal, Mona M. Bedair, First PAU conference, Alexandria, Egypt, October 2015

7. Spectrofluorimetric Determination of each of Topiramate and Levetiracetam in Tablets and in Human Plasma and Simultaneous Determination of their Co-administered Mixture in Human Plasma using Fourth Derivative Synchronous Fluorescence" El-Yazbi AF, Wagih MM, Ibrahim FA, Barary MA, First PAU conference, Alexandria, Egypt, October 2015.
8. "Terbium Luminescence: An Inexpensive Sensitive Probe for Detecting SNPs in DNA" Amira F. El-Yazbi, Glen R. Loppnow. Pittcon 2015, New Orleans, Louisiana, USA, March 2015.
9. "Spectroscopic Probing of UV-Induced DNA damage" Amira F. El-Yazbi, Glen R. Loppnow, Winter I-APS Conference 2013, Sarasota, Florida, January 2013.
10. "Probing UV-Induced Damage in Nucleic Acids with Hypochromism" Amira El-Yazbi, Glen R. Loppnow, The 95th Canadian Chemistry Conference and Exhibition, Calgary, May 2012.
11. "2-Aminopurine Hairpin Probes for the Quantification of Nucleic Acid Damage Induced by UV-light" Amira El-Yazbi, Glen R. Loppnow, The 95th Canadian Chemistry Conference and Exhibition, Calgary, May 2012.
12. "Chimeric RNA-DNA Molecular Beacons for Quantification of UV-induced DNA damage" Amira El-Yazbi, Glen R. Loppnow, The 95th Canadian Chemistry Conference and Exhibition, Calgary, May 2012.
13. "Initial Excited-State Structural Dynamics of 2'-Deoxyguanosine" Amira El-Yazbi, Alexandra Palech, and Glen R Loppnow, XXII International Conference on RAMAN Spectroscopy, 1267, 885-886, Boston, Massachusetts, 2010.
14. "Locked-Nucleic Acid Hairpin Detection Of DNA Damage Induced By UV-Light", Amira El-Yazbi, Glen R. Loppnow, The 56th Annual International Conference on Analytical Sciences and Spectroscopy, Edmonton, Alberta, Canada, 2010.
15. "Quantification of Some Antimuscarinics Using Ion Beam Analysis And HPLC Techniques: A Comparative Study" Amira F. El-Yazbi, Azza A. Gazy, and Mahmoud A. El-Sayed, International Pharmacy Conference, Beirut, Lebanon, 2010
16. "Spectrophotometric And Spectrofluorometric Determination of Certain Antimuscarinics Through Complex Formation Reaction" Amira F. El-Yazbi, Azza A. Gazy, and Mahmoud A. El-Sayed, International Pharmacy Conference, Beirut, Lebanon, 2010
17. "Microarray Analysis of DNA Damage" Lara Chehayeb, Amira El-Yazbi,

- Swaroop Pillai , Glen R Loppnow, WISEST Poster Session, August 2009
18. "Minimizing FRET in DNA Microarray" Kaitlyn Towle, Christine Pinnok, Amira F El-Yazbi, Swaroop Pillai, Glen R Loppnow. CSC Conference, Edmonton, Alberta, Canada, May 2008.

Oral presentations:

1. "Probing DNA damage induced by different pharmaceuticals" Amira El-Yazbi, Scientific Day, Pharos University, Alexandria Egypt
2. "Quantification of nucleic acid damage induced by commonly used Pharmaceuticals" Amira El-Yazbi, PHS 2019, November 2019, Hilton Green Plaza, Alexandria Egypt
3. "Quantification of nucleic acid damage induced by commonly used Pharmaceuticals using various analytical techniques" Amira El-Yazbi, 5th FUE International Conference of Pharmaceutical Sciences (5th FUE-ICPS 2019) Royal Maxim Palace, Kempiniski, Cairo, Egypt.
4. "Design and synthesis of new series of furan-thiazole hybrids, thiazolo-1,2,4-triazines and thiadiazolo-1,2,4-triazines as potential antitumor agents" Marwa El-Wakil, Amira El-Yazbi, 5th FUE International Conference of Pharmaceutical Sciences (5th FUE-ICPS 2019), Royal Maxim Palace, Kempiniski, Cairo, Egypt.
5. "Simple Economic Chromatographic Determination of Sofosbuvir and Ledipasvir Binary Mixture in Pharmaceutical Dosage Forms: Stability Indicating Method." Nourhan Esmat, **Amira F. El-Yazbi**, Karim Abdel-Hay, Haytham Maimon , 4th FUE International Conference of Pharmaceutical Sciences (4th FUE-ICPS 2017) Dusit Thani LakeView, New Cairo, Egypt, January 2017.
6. "Ultrasensitive Spectroscopic Probing of Nucleic Acid Damage" **Amira F. El-Yazbi**, First PAU conference, Alexandria, Egypt, October 2015.

Awards

- 1) 2019 National Research Encouragement Award
- 2) 2019 Alexandria University Research Encouragement Award
- 3) 2018 Egyptian post-doctor L'Oreal – UNESCO Women In Science Fellowship
- 4) University of Alberta, Queen Elizabeth II Graduate Scholarship Sep 2012-Mar 2013.
- 5) University of Alberta, Queen Elizabeth II Graduate Scholarship Sep 2011-

Apr 2012.

- 6) University of Alberta Graduate Student Teaching Award 2011
- 7) Department of Chemistry, Normans Chem 10X prize 2011 for best student evaluation
- 8) University of Alberta Student Housing Award for the ICORS 2010
- 9) Department of Chemistry, Normans Chem 10X prize winter 2010 for best student evaluation
- 10) Department of Chemistry Top CHEM 502 Analytical Chemistry Oral Presentation Award 2009
- 11) Department of Chemistry Normans Chem 10X prize 2009 for best student evaluation
- 12) Department of Chemistry Normans Chem 10X prize fall 2008 for best student evaluation
- 13) Department of Analytical Chemistry Award of Excellence, Egypt, 2006- 2007
- 14) The Ministry of Higher Education Award for Top University Students, Egypt, 1996-2001.
- 15) The University of Alexandria Award for Top Pharmacy Student, Egypt, 2001.

D. Supervisory/Mentoring Experience

- Supervision of 5 Post-graduate students at the Faculty of Pharmacy, Alexandria University (2013 – present)
- Mentoring a Chem 299 student (2013), Alysha Wong on quantifying stability of DNA with different locations and number of mismatches.
- Mentoring a Chem 299 student (2012), Paige Durling on quantifying UV-induced DNA damage by using terbium ions.
- Mentored a WISEST student (grade 11) 2011, Lara Chehayeb on conducting Microarray photochemistry experiments
- Provided mentorship and direction to 2 undergraduate students, Sarah Nowicki and Adam Mildenberger on carrying out DNA photochemistry experiments
- Provide assistance to other undergraduate and graduate students on experiments as needed

E. Volunteer Activities:

- 2014-2017: Supervisor of the California Club Association, A group of pharmacy undergraduate students offering helpful workshops for pharmacy

students, Faculty of Pharmacy, Alexandria University.

- 2009-2010: Vice-President International, Chemistry Graduate Students' Association, Department of Chemistry, University of Alberta.
- 2007-2008: Fund-raising for the Canadian Cancer Society: I participate in the annual door-to-door campaign to collect money for the Canadian Cancer Society.
- 2000-2003: I participated in the activities of the Alexandrine Scientific Pharmaceutical Students Association (ASPSA). I served of the Executive committee of the ASPSA as the membership promotion officer (2001-2002) and as the contact person (2002-2003).

F. Contact Information:

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G. References:

Available upon request.