

## **Alaa Hamed Salama**

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### **Curriculum Vitae**

Date and Place of Birth: November 9<sup>th</sup> 1983, Cairo, Egypt.

Occupation: Associate Professor, Department of Pharmaceutical Technology, National Research Centre, Dokki, Cairo, Egypt.

2000 – 2005 Undergraduate student, Faculty of Pharmacy, Cairo University

2005 Obtained B. SC. of Pharmacy, Faculty of Pharmacy, Cairo University, very good degree with honour

2005 – 2006 Analyst in Quality Control Department, Sector of Research, Kahira Pharm. Company

2005 – 2006 Working as a pharmacist in a private communication pharmacy

2006 – 2010 Associate Researcher, Department of Pharmaceutical Technology, National Research Centre, Dokki, Cairo, Egypt, as well as postgraduate student, Faculty of Pharmacy, Suez Canal University

2010 Obtained Master Degree in Pharmaceutical Sciences (Pharmaceutics), Suez Canal University. Thesis entitled: "*Application of Nanotechnology for Improving the Bioavailability of Sulindac*"

2010- 2014	Research Associate, Department of Pharmaceutical Technology, National Research Centre, Dokki, Cairo, Egypt.
2013	Obtained PhD Degree in Pharmaceutical Sciences (Pharmaceutics), Cairo University. Thesis entitled: " <i>Formulation and evaluation of site specific drug delivery systems</i> "
2014-2019	Researcher, Department of Pharmaceutical Technology, National Research Centre, Dokki, Cairo, Egypt.
2017 -2019	Assistant Professor, Department of Pharmaceutics, Faculty of Pharmacy, Ahran Canadian University.
2019 till now	- Associate Professor, Department of Pharmaceutics, Faculty of Pharmacy, Ahran Canadian University. - Associate Professor, Department of Pharmaceutical Technology, National Research Centre.

### Prizes

1. Egypt State Encouragement Award in the field of medical sciences for 2020, Egypt
2. Listed in the Stanford University 'World's Top2%' list in the most influential in the world, published in 2021.
3. National Research Center Award for Scientific Encouragement in pharmaceutical sciences field, 2016
4. Prof. Dr. Venice Kamel Gouda's award for the scientific creativity of young researchers in the field of materials science and their applications, 2016

## ***Publications***

### ***a- Research articles***

1. Chitosan/cyclodextrin nanoparticles as drug delivery system. H. O. Ammar, S. A. El-Nahas, M. M. Ghorab and **A. H. Salama**. Journal of Inclusion Phenomena and Macrocyclic Chemistry, **72**, (2012), 127-136.
2. Ufasomes nano-vesicles-based lyophilized platforms for intranasal delivery of cinnarizine: preparation, optimization, ex-vivo histopathological safety assessment and mucosal confocal imaging. **A. H. Salama**, and M. H. Aburahma. Pharmaceutical Development and Technology, **21**(6), (2016), 706-15.
3. Tri/tetra-block co-polymeric nanocarriers as a potential ocular delivery system of lornoxicam: in-vitro characterization, and in-vivo estimation of corneal permeation. **A. H. Salama** and R. N. Shamma. International Journal of Pharmaceutics **492**, (2015), 28–39.
4. A novel method for preparing surface modified fluocinolone acetonide loaded PLGA nanoparticles for ocular use: in-vitro and in-vivo evaluations. **A. H. Salama**, A.A. Mahmoud and R. Kamel. AAPS PharmSciTech; **17**, (2016), 1159-1172.
5. Norfloxacin-loaded collagen/chitosan scaffold for skin reconstruction: Preparation, evaluation and in-vivo wound healing assessment. Azza A. Mahmoud and **Alaa H. Salama**. European journal of pharmaceutical sciences. **83**, (2016), 155–165.
6. A trial for the design and optimization of pH-sensitive microparticles for intestinal delivery of cinnarizine. Hussein O. Ammar, Mahmoud Ghorab, Rabab Kamel and **Alaa H. Salama**. Drug Delivery and Translational Research. **6** (3), (2016), 195–209.
7. Design and optimization of gastro-retentive microballoons for enhanced bioavailability of cinnarizine. Hussein O. Ammar, Mahmoud Ghorab,

- Rabab Kamel and **Alaa H. Salama**. Drug Delivery and Translational Research. **6**(3), (2016), 210-24.
8. Development and optimization of self-assembling nanosystem for intra-articular delivery of indomethacin. Rabab Kamel, **Alaa H. Salama**, Azza A. Mahmoud. International Journal of Pharmaceutics, **515**(1-2), (2016), 657–668.
  9. Enhancement of the topical tolinaftate delivery for the treatment of tinea pedis *via* proovesicular gel systems. Mona Mahmoud AbouSamra and **Alaa Hamed Salama**. Journal of Liposome Research, **27**(4), (2017): 324–334
  10. Reconstitutable spray dried ultra-fine dispersion as a robust platform for effective oral delivery of an antihyperlipidemic drug. Mona Basha, **Alaa H. Salama**, Sally El Awdan. International Journal of Pharmaceutics, **532** (2017) 478–490.
  11. Therapeutic effects of lornoxicam-loaded nanomicellar formula in experimental models of rheumatoid arthritis. Hebatullah Samy Helmy, Ayman E El-Sahar, Rabab H Sayed, Rehab Nabil Shamma, **Alaa Hamed Salama**, Eman Maher Elbaz. International Journal of Nanomedicine. **12** (2017): 7015-7023.
  12. Experimentally designed lyophilized dry emulsion tablets for enhancing the antihyperlipidemic activity of atorvastatin calcium: Preparation, in-vitro evaluation and in-vivo assessment. **Alaa H. Salama**, Mona Basha and Sally El Awdan. European Journal of Pharmaceutical Sciences, **112** (2018): 52–62
  13. Exploiting bilosomes for delivering bioactive polysaccharide isolated from *Enteromorpha intestinalis* for hacking hepatocellular carcinoma. Azza Abdelmageed Matloub, **Alaa Hamed Salama**, Hadeer Ahmed Aglan, Mona Mahmoud AbouSamra, Sahar Salah Mohamed ElSouda and Hanaa Hamdy Ahmed. Drug Development and Industrial Pharmacy. **44** (2018), 4, 523–534

14. Cubic liquid crystalline nanoparticles containing a polysaccharide from *Ulva fasciata* with potent antihyperlipidaemic activity. Azza A. Matloub, Mona M. AbouSamra, **Alaa H. Salama**, Maha Z. Rizk, Hanan F. Aly, Ghada Ibrahim Fouad. *Saudi Pharmaceutical Journal*. **26(2)**, (2018): 224-231
15. Bioavailability Enhancement of Aripiprazole Via Silicosan Particles: Preparation, Characterization and In vivo Evaluation. Azza A. Mahmoud, **Alaa H. Salama**, Rehab N. Shamma, and Faten Farouk. *AAPS PharmSciTech*. 19(8), (2018): 3751-3762.
16. Effect of different desensitizing toothpastes on dentinal tubules occlusion of simulated hypersensitive dentin: a SEM study. Hoda R.M. Riad, Osama S. Mosallam, **Alaa H. Salama**, Lamiaa M. Moharam, Mohamed H. Zaazou, Hanan A. Niazi and Mokhtar N. Ibrahim. *Ain Shams Dental Journal*, XXI, (2018).
17. Evaluation of the biological activity of *Moringa oleifera* leaves extract after incorporating silver nanoparticles, in vitro study. Shousha, Wafaa G., Wael M. Aboulthana, **Alaa H. Salama**, Mahmoud H. Saleh, and Ehab A. Essawy. *Bulletin of the National Research Centre* 43(1), (2019): 1-13.
18. Spray drying as an advantageous strategy for enhancing pharmaceuticals bioavailability. **Alaa H. Salama**, *Drug Delivery and Translational Research*, 10(1), (2020):1-12.
19. Etoricoxib-loaded bio-adhesive hybridized polylactic acid-based nanoparticles as an intra-articular injection for the treatment of osteoarthritis. **Salama, A.H.**, Abdelkhalek, A.A., Elkasabgy, N.A., *International Journal of Pharmaceutics*, 578, (2020), 119081
20. Nanotechnology based blended chitosan-pectin hybrid for safe and efficient consolidative antiemetic and neuro-protective effect of meclizine hydrochloride in chemotherapy induced emesis, **Salama, A.H.**, Elmotasem,

- H., Salama, A.A.A., International Journal of Pharmaceutics, 584, (2020), 119411
21. Application of micro-emulsion formulation in improving the antiproliferative performance of *Salix mucronata* (Thunb) leaves with chemical investigation of the active extract. Salma A. El-Sawi, Amal Maamoun, **Alaa H. Salama**, Maii Maamoun, Ayman A. Farghaly, Acta Ecologica Sinica, 2020
  22. Chemical profiling of *Thevetia peruviana* leaves cytotoxic active extracts enhanced by microemulsion formulation, Salma A. El-Sawi, Amal A. Maamoun, **Alaa H. Salama** and Ayman A. Farghaly, Bulletin of the National Research Centre, 44, (2020) Article number: 93.
  23. Formulation and Evaluation of Novel Hybridized Nanovesicles for Enhancing Buccal Delivery of Ciclopirox Olamine, AbouSamra, M. M., **Salama, A. H.**, Awad, G. E. A., AAPS PharmSciTech, 2020, 21(7), 283.
  24. Promising bioadhesive ofloxacin-loaded polymeric nanoparticles for the treatment of ocular inflammation: formulation and in vivo evaluation Salama, A.H., AbouSamra, M.M., Awad, G.E.A., Mansy, S.S. Drug Delivery and Translational Research, 2021, 11(5):1943-1957
  25. Single step nanospray drying preparation technique of gabapentin-loaded nanoparticles-mediated brain delivery for effective treatment of PTZ-induced seizures. Alaa H. Salama, Abeer A.A.Salama, Mona Elhabak. International Journal of Pharmaceutics, 2021 (602), 120604.
  26. Optimized copolymeric microstructured platforms for smart controlled delivery of an anticoagulant drug: Preparation, in vitro assessment and crossover study in healthy adult human volunteers. Salama, A.H., Abouelatta, S.M. International Journal of Pharmaceutics, 2021 (608) 121084.
  27. Micellar buccal film for safe and effective control of seizures: Preparation, in vitro characterization, ex vivo permeation studies and in vivo assessment.

- Alaa H. Salama, Mona Basha, Abeer A.A. Salama. European Journal of Pharmaceutical Sciences, 2021 (166) 105978.
28. Preclinical Study of Nanostructured Cubic Liquid Crystalline Formulating of Ulva Fascista Bioactive Polysaccharides against Hepatocirrhosis. Azza A. Matloub, Mona M. AbouSamra, Alaa H. Salama, Manal A. Hamed and Sanaa A Ali. OJPSR, 2021, (May), 21-34
  29. Assessment of the Anti-Cancer Efficiency of Silver Moringa oleifera Leaves Nano-extract against Colon Cancer Induced Chemically in Rats. Wael Mahmoud Aboulthana, Wafaa Ghoneim Shousha, Ehab Abdel-Raouf, Essawy, Mahmoud Hosny Saleh, **Alaa Hamed Salama**. Asian Pacific Journal of Cancer Prevention, 2021 (22) 3267-86.
  30. Budesonide-Loaded Bilosomes as a Targeted Delivery Therapeutic Approach Against Acute Lung Injury in Rats. Salem, H.F., Moubarak, G.A., Ali, A.A., Salama, A.A.A., Salama, A.H. Journal of Pharmaceutical, 2022, available online 10 October 2022, in press

### ***b- Books***

1. Provesicular gel systems as an outstanding carrier: for enhancing the antifungal activity of tolinaftate against tinea pedis. **Alaa H. Salama**, Mona M. Abousamra. LAP LAMBERT Academic Publishing (16 Aug. 2017), ISBN: 978-620-2-01471-7
2. Nanotechnology as a versatile tool for enhancing drugs bioavailability: Eudragit-coated chitosan-TPP nanoparticles for efficient delivery of sulindac. **Alaa H. Salama**, Mamdouh M. Ghorab, Soheir A. El-Nahas, Hussein O. Ammar. LAP LAMBERT Academic Publishing. ISBN:978-620-2-07320-2

### ***Participation in Research Projects***

1. Team member, Mega Project financed by National Research Centre,

- entitled "Application of Nanotechnology for Delivering and Improving the Therapeutic Efficacy of Selected Drugs" (2007 – 2010).
2. Team member, Research Project financed by Ministry of Trade and Industry and Ministry of Higher Education and State for Scientific Research, entitled "Development of a drug delivery system for administration of insulin by oral route" (2007 – 2010).
  3. Team member, Project financed by National Research Centre, entitled "Innovation of Transdermal delivery systems for selected drugs" (2007 – 2010).
  4. Team member, Mega Project financed by National Research Centre, entitled "Application of nanotechnology and other advance technologies for optimizing drug delivery" (2013 – 2016).
  5. Team member, Project financed by National Research Centre, entitled "Approach of algal polysaccharide for management of hepatic diseases" (2013 – 2016).
  6. Team member, Project financed by National Research Centre, entitled "Application of nanotechnology in improving the biological performance of some Egyptian plants used traditionally for anticancer treatment" (2013 – 2016).
  7. Co-principal Investigator, Project financed by National Research Centre, entitled "Application of recent technologies to improve the bioavailability of certain drugs" (2016 – 2019).
  8. Team member, Project financed by National Research Centre, entitled "Evaluation of Antioxidant Efficiency of Silver Nanoparticles Biosynthesis Using Croton tiglium L. Seeds Extract against Azoxymethane Induced Colon Cancer in Rats" (2016 – 2019).

### ***Thesis Supervision***

- Supervision on three PhD students and two master students.



### ***Patent submission***

- Micellar nanoparticles of Indomethacin/Proteoglycans for intra-articular injection. Kamel, R., **Salama, A.H.** and Mahmoud, A.A., Egypt. Pat., Appl. 2016/1583, September 26th, 2016.
- Innovation of a new pharmaceutical formulation loaded with the anti-emetic drug meclizine hydrochloride for buccal delivery. Heba Elmotasem Elkady, Alaa Hamed Salama, Abeer Salama, Egypt. Pat., Appl. 420/2020, March, 8, 2020.

### ***Reviewing activities***

- Registered reviewer for the STDF submitted projects.
- Reviewer in the following Scientific Journals:
  - International Journal of Pharmaceutics
  - Scientific Reports
  - Saudi Pharmaceutical Journal
  - Journal of Biomaterials Applications
  - Current Drug Targets
  - Current Pharmaceutical Design
  - Recent Patents on Drug Delivery & Formulation
  - Journal of Drug Delivery Science and Technology
  - AAPS Pharmscitech
  - Future Journal of Pharmaceutical Sciences
  - International Journal of Nanomaterials, Nanotechnology and Nanomedicine
  - Journal of Applied Pharmaceutical Science
  - Drug Design, Development and Therapy

- Reviewing graduation projects for "drug design program" students, Faculty of pharmacy, Ain Shams University, May 2019

### ***Editorial activities***

- Associate Editor of the "Academic Journal of Nanotechnology"
- Associate Editor of the "Academic Journal of Pharmaceutical Sciences"
- Editor of the "SEJ Biopharmaceutics"
- Editor of the "Edorium™ Open"

### ***Participation in international conferences and workshops***

#### ***1. Organization***

- Organization team member for the 5<sup>th</sup> international conference of pharmaceutical and drug industries research division "Advances in pharmaceutical research". National Research Centre, Egypt. March 2015
- Organization team member for the 6<sup>th</sup> international conference of pharmaceutical and drug industries research division. National Research Centre, Egypt. October 2017
- Organization team member for the Pharmaceutical Technology Department workshop entitled: "Recent advances in pharmaceutical technology: from development to patency". October 2017
- As the head of the training committee-Faculty of Pharmacy-Ahram Canadian University; Dr. Alaa was responsible to organize several workshops:
  1. "Leadership-team building", October 2019.

2. "Marketing basics", December 2019.
3. "Patent system and copyrights in the pharmaceutical field", February 2020.
4. "Emotional Intelligence", March 2020.
5. "Situational leadership skills and the art of effective motivation", December 2020, in collaboration with the pharmacy syndicate in Qalyubia.
6. "How to write a winning grant research proposal", February 2021.
7. "The use of computer skills to upgrade the professional performance of the administrative staff", March 2021.
8. "Research article: from hypothesis to publication", April 2021.
9. "How to write an outstanding thesis: section by section", April 2021.
10. "Guidelines for the experimental design and its statistical analysis", August 2021.
11. "Program and course specifications according to competency based NARS", October 2021.
- 12.

## ***2. Poster presentation***

- Poster presentation at the 15<sup>th</sup> International Cyclodextrin Symposium, Vienna, Austria (2010).
- Poster presenter in the 4<sup>th</sup> International Scientific Conference of Faculty of Pharmacy, Cairo University; entitled "Development of Optimized Site-Specific Oral Cinnarizine Microspheres". 2013
- Poster presentation at the ICBEE 2015 : XIII International Conference on Biological and Environmental Engineering, entitled: "Investigating the Suitability of Utilizing Lyophilized Gels to Improve the Stability of

Ufasomes" World Academy of Science, Engineering and Technology, International Science Index, , 2(1), 2015.

- Poster presentation entitled:" Poly(lactic-co-glycolic acid) based nanoparticles as a controlled ocular delivery system. The 3<sup>rd</sup> FUE international conference of pharmaceutical sciences. February 2015.
- Poster presentation entitled: "polymeric nanoparticles for enhanced delivery of an anti-inflammatory drug" in the 5<sup>th</sup> international conference of pharmaceutical and drug industries research division "Advances in pharmaceutical research". March 2015
- Poster presentation entitled:" ufasomes facilitated nasal delivery of cinnarizine: formulation, optimization and confocal imaging" presented in the 6<sup>th</sup> international scientific conference, faculty of pharmacy, Cairo university" 2020 vision for pharmacy in Egypt". April 2015
- Poster presentation entitled: "Development of an intra-articular injection of self-assembling nanosystem for the treatment of osteoarthritis" in the 4<sup>th</sup> FUE International Conference of Pharmaceutical Sciences. 2017
- Poster presentation entitled: "Atorvastatin calcium-loaded spray dried emulsion: preparation, characterization and evaluation of antihyperlipidemic activity" in the 4<sup>th</sup> FUE International Conference of Pharmaceutical Sciences. 2017
- Poster presentation entitled: "Lyophilized orally disintegrating tablets of atorvastatin calcium: development, optimization, *in-vitro* and *in-vivo* assessments" in the 4<sup>th</sup> FUE International Conference of Pharmaceutical Sciences. 2017
- Poster presentation entitled:" Surface- modified PLGA nanoparticles for ocular use: in vitro and in vivo evaluations" at the International conference of nanomedicine and nanobiotechnology 2017. At the University Pompeu Fabra in Barcelona. 2017

- Poster presentation entitled: " Bilosomes as delivering carrier for the bioactive polysaccharide isolated from *Enteromorpha intestinalis* for enhanced hepatocarcinogenesis and angiogenesis activities" in the 6<sup>th</sup> international conference of pharmaceutical and drug industries research division "Advances in pharmaceutical research". October 2017
- Poster presentation entitled: Optimizing novel hybridized vesicles for enhancing the buccal delivery for an antifungal drug” in the 1<sup>st</sup> NRC-Grenoble INP international conference on science and sustainable development. National Research Centre, Egypt, September 2019.
- Poster presentation entitled: Effective control of epileptic seizures by intranasal administration of fine powder encapsulating an antiepileptic drug” in the 2<sup>nd</sup> NRC International Conference on Science and Sustainable Development. National Research Centre, Egypt, October 2021.
- Poster presentation entitled: Graft co-polymeric carriers based on acrylamide and eudragit entangled within a gastroretentive hydrogel as a smart controlled release systems for safe delivery of an anticoagulant drug. The XXXVI international scientific conference of pharmaceutical sciences, Egyptian Pharmaceutical Society. May 2022.
- Poster presentation entitled: Nanotechnology-based polymeric buccal film for safe, child-friendly and effective delivery of an antiepileptic drug. TBRI Annual Conference 2022, 1<sup>st</sup>-3<sup>rd</sup> of December 2022.

### ***3. Attendance***

- Attendant at the workshop "Application of nanotechnology in industry: Opportunity of integration among IDB member states", National Research Center, 2012.

- Attendant at the workshop "The International Workshop in Industrial Nanotechnology " I WIN EGYPT 29 - 30 March 2013"
- Attendant at the workshop "Common Statistical Tools in Scientific Research 'Statistical Basic and Practical Application'", National Research Center, 2014.
- Attendant at the 4<sup>th</sup> International Workshop and Conference on "Nanomaterials and nanodevices", National Research Center, 2014.
- Attendant at workshop entitled" Generic pharmaceutical products in the Egyptian market: registration requirements, Faculty of Pharmacy, Cairo University, 2014.
- Attendant at the EUDRAGIT® Basic Workshop, Fairmont Towers Heliopolis Hotel, 2015.
- Attendant at The Euro-Mediterranean conference of natural products and drug discovery: back to mother nature" organized by The Euro-Mediterranean association of life sciences (EMALS), 2015
- Attendant of the module " How to present scientific data" organized by The DAAD Kairo Akademie, 2015
- Attendant of the module " Designing Scientific Poster" organized by The DAAD Kairo Akademie, 2015
- Attendant of the module " Competitive Research Proposal Writing " organized by The DAAD Kairo Akademie, 2015
- Attendant of the module " Teambuilding for Teammembers " organized by The DAAD Kairo Akademie, 2015
- Attendant at the workshop entitled:" Development of Pharmaceutical dosage forms via QbD: Concept and hands-on computer training", Faculty of Pharmacy, Cairo University, 2016.

- Attendant at the workshop entitled: " Modern approaches in Pharmaceutical fields", Medicinal and Pharmaceutical Chemistry department, National Research Centre, 2017.
- Attendant at the Pharmaceutical Technology Department workshop entitled: "Recent advances in pharmaceutical technology: from development to patency". October 2017
- Attendant at the workshop entitled "Nanomedicine as targeted drug delivery", National Research Centre 2017
- Attendant at the "Her Story Champion for women's empowerment". United Nations for women
- Attended the "Pharmaceutical vigilance scientific day" at the faculty of pharmacy-Ahram Canadian University, May 2018.
- Attended the workshop entitled:” recent advances in pharmaceutical and biomedical applications”, National research centre, October 2018.
- Attended the "Gap analysis between B of pharmacy- ACU and new NARS" at the faculty of pharmacy-Ahram Canadian University, November 2018.
- Attended the workshop entitled: ”Clinical practice (Anticoagulant stewardship)” at National Research Centre, January 2019.
- Attended the Buchi speed seminar organized by Labib Demian Youssef & Co., April 2019.
- Attended the workshop entitled: ”Leadership-team building” held at Faculty of Pharmacy-Ahram Canadian University, October 2019.
- Attended the workshop entitled: ”Marketing basics” held at Faculty of Pharmacy-Ahram Canadian University, December 2019.
- Attendant of the workshop entitled: ”Nuclear Pharmacy and Applications in Pharmaceutics”, held at Faculty of Pharmacy-Ahram Canadian University, February 2020.

- Attendant of the workshop entitled: "Patent system and copyrights in the pharmaceutical field", held at Faculty of Pharmacy-Ahram Canadian University, February 2020.
- Attendant of the workshop entitled: "Emotional Intelligence", held at Faculty of Pharmacy-Ahram Canadian University, March 2020.
- Attendant of the workshop entitled: "Situational leadership skills and the art of effective motivation", held at Faculty of Pharmacy-Ahram Canadian University in collaboration with the pharmacy syndicate in Qalyubia, December 2020.
- Attendant of the workshop entitled: "How to write a winning grant research proposal", held on line organized by the training committee of Faculty of Pharmacy-Ahram Canadian University, February 2021.
- Attendant of the workshop entitled: "Nature research academies workshop", February 2021.
- Attendant of the webinar entitled: " Elsevier-NRC guide course for reviewers: introduction to peer review and general aspects", organized by National Research Centre, March 2021.
- Attendant of the webinar entitled: " Elsevier-NRC guide course for reviewers: Elsevier resources & training for reviewers", organized by National Research Centre, March 2021.
- Attendant of the webinar entitled: " Elsevier-NRC guide course for reviewers: Reviewer report & decision", organized by National Research Centre, March 2021.
- Attendant of the workshop entitled: "Research article from hypothesis to publication", held on line organized by the training committee of Faculty of Pharmacy-Ahram Canadian University, April 2021.
- Attendant of the workshop entitled: "Certified digital citizen", April 2021.



- Attendant of the workshop entitled: "Guidelines for the experimental design and its statistical analysis", held on line organized by the training committee of Faculty of Pharmacy-Ahram Canadian University, August 2021.
- Attendant of the workshop entitled: "Program and course specifications according to competency based NARS", held on line organized by the training committee of Faculty of Pharmacy-Ahram Canadian University, October 2021.
- Attendant of the workshop entitled: "Strategic planning for colleges and institutes of higher education" certified by The National Authority for Quality Assurance and Accreditation of Education "NAQAAE", February 2022.
- Attendant of the workshop entitled: "Teaching strategies for colleges and institutes of higher education" certified by The National Authority for Quality Assurance and Accreditation of Education "NAQAAE", February 2022.
- Attendant of the workshop entitled: "Experimental design" Faculty of Pharmacy, Ahram Canadian University, August 2022.
- Attendant of the workshop entitled: "Academic advising and students support" Faculty of Pharmacy, Ahram Canadian University, October 2022.

### **Medical Convoys**

- A volunteer participant in Ibn Sina 6<sup>th</sup> medical convoy organized by faculty of pharmacy-Ahram Canadian University, July 2018.
- A volunteer participant in Ibn Sina 7<sup>th</sup> medical convoy organized by faculty of pharmacy-Ahram Canadian University, July 2019.

- A volunteer participant in Ibn Sina 8<sup>th</sup> medical convoy organized by faculty of pharmacy-Ahram Canadian University, December 2022.

### **Teaching experience**

- Teaching "Pharmaceutics I" course for second year pharmacy students, Department of Pharmaceutics, Faculty of Pharmacy, Fayoum University, First semester for the academic year 2016-2017.
- Teaching "Pharmacy history and orientation" course for first year pharmacy Students, Department of Pharmaceutics, Faculty of Pharmacy, Fayoum University, First semester for the academic year 2016-2017.
- Teaching "Pharmacy legislation" course for second year pharmacy students, Department of Pharmaceutics, Faculty of Pharmacy, Fayoum University, First semester for the academic year 2016-2017.
- Teaching "Pharmacy history and orientation" course for first year pharmacy Students, Department of Pharmaceutics, Faculty of Pharmacy, Ahram Canadian University, First semester for the academic year 2017-2018.
- Teaching "Industrial pharmacy-1" course for fifth year pharmacy students, Department of Pharmaceutics, Faculty of Pharmacy, Ahram Canadian University, Fall 2018.
- Teaching "Pharmaceutics-2" course for second year pharmacy students, Department of Pharmaceutics, Faculty of Pharmacy, Ahram Canadian University, Spring 2018.
- Teaching "Physical pharmacy" course for level-one pharmacy Students, Department of Pharmaceutics, Faculty of Pharmacy, Ahram Canadian University, Spring 2019.
- Teaching "Pharmaceutics-1" course for level-two pharmacy Students, Department of Pharmaceutics, Faculty of Pharmacy, Ahram Canadian University, Fall 2019.

- Teaching "Pharmacy ethics and legislations" course for level-five pharmacy Students, Department of Pharmaceutics, Faculty of Pharmacy, Ahram Canadian University, Fall 2019.
- Teaching "Pharmaceutics-1" course for level-two pharmacy Students, Department of Pharmaceutics, Faculty of Pharmacy, Ahram Canadian University, Spring 2020.
- Teaching "Physical pharmacy" course for level-one pharmacy Students, Department of Pharmaceutics, Faculty of Pharmacy, Ahram Canadian University, Spring 2020.
- Teaching "Industrial pharmacy-2" course for fifth year pharmacy students, Department of Pharmaceutics, Faculty of Pharmacy, Ahram Canadian University, Spring 2020.

### **Quality assurance and accreditation of education activities**

- Member in the quality assurance unit, Faculty of Pharmacy, Ahram Canadian University.
- Quality assurance coordinator for the Pharmaceutics department, Faculty of Pharmacy, Ahram Canadian University (October 2018-September 2019)
- Member in the committee of community service and environment development.
- Head of training committee, Faculty of pharmacy, Ahram Canadian University.
- Vice head of the questionnaires committee, Faculty of pharmacy, Ahram Canadian University.
- Member in the Internal Audit Committee, Faculty of pharmacy, Ahram Canadian University.
- Member in the committee of self-study, Faculty of pharmacy, Ahram Canadian University.

### ***Laboratory skills:***

- Worked on formulation and characterization of drug delivery in various dosage forms specially nanoparticles as: biodegradable nanoparticles, transfersomes, liposomes, chitosan nanoparticles, site specific drug delivery systems, solid-lipid nanoparticles, nanoliquid crystal nanoparticles, nanoemulsions and self-nanoemulsifying drug delivery systems.
- Utilizing biodegradable scaffolds for tissue engineering.
- Experience in dealing with all equipment used for designing, characterizing and evaluating pharmaceutical dosage forms.

### ***Language skills:***

- Fluent in Arabic
- English – excellent (listening, speaking, reading, writing)

### ***Computer skills:***

- ICDL qualified
- Microsoft Office programs
- SPSS - Statistical program
- WinNonlin – Kinetic program
- EndNote – References program
- Design Expert, Minitab, JMP – Factorial design programs

### ***Membership of professional associations:***

- Member of the Egyptian Syndicate of Pharmacists.
- Member of the Egyptian Pharmaceutical Society.
- Member of the Nakaa Nanotechnology Network NNN.

- Member of the Egyptian Society of Advanced Materials and Nantechology.
- Member of the Euro-mediterranean Association of life sciences.
- Member of the United Kingdom and Ireland controlled release society (UKICRS)
- Member of the organization for women in science for the developing world
- Member of the Arab Society for Genetic Engineering and Biotechnology
- Member of the Biotechnology Association -Federation of Arab Scientific Research Council
- Member of the Arab Society for medical research

***Fields of interest***

Drug development and formulation

Nano- and micro-particle technology

Advanced drug delivery systems