

## Professor Magda EL-Massik Curriculum Vitae

### Contact Details

**Name:** Magda Abdel Samea EL-Massik

**Title:** Emeritus Professor

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### Biography

#### **Academic Qualifications:**

Obtained a Bachelor degree in Pharmacy; a Master and PhD degrees in Pharmaceutical Sciences, Pharmaceutics, Alexandria University (AU).

#### **Career History and Professional Experience**

##### **PROFESSIONAL POSTS IN THE FACULTY OF PHARMACY, ALEXANDRIA UNIVERSITY**

- Professor of pharmaceutics and Director of the International Relations and Agreements Office (IRAO), Faculty of Pharmacy, AU, 2016-up-to date.
- Associate Professor, Dept. of Pharmaceutics, Faculty of Pharmacy University of Alexandria, 1995- 2006.
- Short term-visiting professor to Beirut Arab University, Libanon, (six visits, each for 2-3 months) during 2001-2004.
- Lecturer, Dept. of Pharmaceutics, Faculty of Pharmacy, University of Alexandria, 1987-1995.
- Assistant Lecturer, Dept of Pharmaceutics, Faculty of Pharmacy, University of Alexandria, 1982-1987.
- Demonstrator, Dept. of Pharmaceutics, Faculty of Pharmacy, University of Alexandria, 1976-1982.

##### **PROFESSIONAL POSTS IN THE FACULTY OF PHARMACY, PHAROS UNIVERSITY IN ALEXANDRIA**

- Vice-President for International Relations and Quality Assurance, Pharos University in Alexandria (PUA), 2013-August 2016.
- Dean of International Relations and Quality Assurance, PUA, 2009-2013.
- Dean of Education Development Center, PUA, 2012- 2016.
- Professor and Head of Department of Pharmaceutics and Drug Manufacturing, Faculty of Pharmacy, PUA, 2006- 2009

<b>Research Interest</b>	<ul style="list-style-type: none"> <li>● Design and evaluation of drug delivery systems to solve problems related to the improper physicochemical and biopharmaceutical drug characteristics.</li> <li>● Development of site specific nano-based drug delivery systems.</li> <li>● Application of nanotechnology and nanomedicine in targeted cancer therapy</li> </ul>
<b>Publications</b>	<ol style="list-style-type: none"> <li>1. Samak YO, Santhanes D, El-Massik MA, Coombes AGA. Formulation strategies for achieving high delivery efficiency of thymoquinone-containing <i>Nigella sativa</i> extract to the colon based on oral alginate microcapsules for treatment of inflammatory bowel disease. <b>J Microencapsul.</b> 2019; 36 (2) :204-214. doi: 10.1080/02652048.2019.1620356. Epub 2019 Jun 4.</li> <li>2. Abou Youssef NA, Kassem AA, Farid RM, Ismail FA, EL-Massik MA, Boraie NA. A novel nasal almotriptan loaded solid lipid nanoparticles in mucoadhesive in situ gel formulation for brain targeting: Preparation, characterization and in vivo evaluation. <b>International Journal of Pharmaceutics</b> 2018; 548: 609-624.</li> <li>3. <u>Samak YO, EL-Massik MA, Coombes AGA,</u> A Comparison of Aerosolization and Homogenization Techniques for Production of Alginate Microparticles for Delivery of Corticosteroids to the Colon. <b>Journal of Pharmaceutical Sciences</b> 2017; 106:208-216.</li> <li>4. Hazzah HA, Farid RM, Nasra MMA, Zakaria M, Gawish Y, El-Massik MA, Abdallah OY. A new approach for treatment of precancerous lesions with curcumin solid–lipid nanoparticles loaded gels: in vitro and clinical evaluation. <b>Drug delivery</b> 2016; 23 (4): 1409-1419.</li> <li>5. El-Refaie WM, Elnaggar YS, EL-Massik MA, Abdallah OY, Novel self-assembled, gel-core hyaluosomes for non-invasive management of osteoarthritis: In-vitro optimization, ex-vivo and in-vivo permeation. <b>Pharmaceutical Research</b> 2015; 32 (9): 2901-2911.</li> <li>6. El-Refaie WM, Elnaggar YS, EL-Massik MA, Abdallah OY, Novel curcumin-loaded gel-core hyaluosomes with promising burn-wound healing potential: Development, in-vitro appraisal and in-vivo studies. <b>International Journal of Pharmaceutics</b> 2015; 486: 88–98.</li> <li>7. Abou Youssef NA, Kassem AA, EL-Massik MA, Boraie NA, Development of gastroretentive metronidazole floating raft system for targeting <i>Helicobacter pylori</i>. <b>International Journal of Pharmaceutics</b> 2015, 486: 297-305.</li> <li>8. Hazzah HA, Farid RM, Nasra MA, Hazzah WA, EL-Massik MA, Abdallah OY Gelucire-Based Nanoparticles for Curcumin Targeting to Oral Mucosa: Preparation, Characterization, and Antimicrobial Activity Assessment, <b>Journal of Pharmaceutical Sciences</b> 2015; 104(11): 3913-24.</li> </ol>

9. Hazzah HA, Farid RM, Nasra MA, EL-Massik MA, Abdallah OY.  
Lyophilized Sponges Loaded with Curcumin Solid Lipid Nanoparticles for Buccal Delivery: Development and Characterization. *International Journal of Pharmaceutics* 2015; 492(1-2): 248-57
  
10. Ali M, EL-Massik MA, Abdallah OY. Effect of Bioactive Excipient Pluronic P85 on Bioavailability of the Efflux Transporter P-glycoprotein Substrate, Acyclovir, from Matrix CR Mini Tablets. Poster presented at the first **PUA International Conference on Advances in Pharmaceutical Sciences**, held at Pharos University in Alexandria Egypt, 27-29 October 2015.
  
11. Ali M, EL-Massik MA, Abdallah OY. Effect of Formulation Aspects on Improving Bioavailability of a Model PEPT1 Transporter Substrate (Valacyclovir) from CR Mini Tablets. Poster presented at the first **PUA International Conference on Advances in Pharmaceutical Sciences**, held at Pharos University in Alexandria Egypt, 27-29 October 2015.
  
12. Elnaggar YS, El-Refaie W M, EL-Massik MA, Abdallah OY, Lecithin-based nanostructured gels for skin delivery: An update on state of art and recent applications. **Journal of Controlled Release** 2014 S; 180:10-24.
  
13. Ali M, EL-Massik MA, Abdallah OY and Abdelkader H, Reduction of Bitterness and Enhancing Palatability of Cetirizine Oral Liquid Dosage Forms by Cyclodextrins. **Journal of Pharmaceutics & Drug Development** 2014; 1(3):1-8.
  
14. El-Refaie WM, EL-Massik MA, Abdallah OY, Khalafallah NM. Formulation and evaluation of taste-masked paracetamol-lipid sachets and chewable tablets. **Journal of Pharmaceutical Investigation** 2014, 44: 431-442.
  
15. Daebis NMM, EL-Massik MA and Abdallah OY, Nanoprecipitation as a simple technique for the formulation of an oral itraconazole nanosuspension. Presented as a poster at the **6<sup>th</sup> International Conference on Drug Discovery and Therapy**. February 10-12, 2014, Dubai, UAE.
  
16. Daebis N, Abdallah OY, EL-Massik M, Abdelkader H. Formulation and Characterization of Itraconazole Oral Nanosuspension: Methyl Cellulose as Promising Stabilizer. **J Drug Dev Cli Tri** 2015; 1(1): 102.
  
17. EL-Batouti G, EL-Massik MA, Pharos University in Alexandria; Towards a Learner-Centered Education, presented as a podium at the **1<sup>st</sup> Annual Higher Education Leadership Forum** held on 12-13 November, 2013, Dubai, UAE.

18. Hazzah HA , EL-Massik MA, Abdallah OY, Abdelkader H, Preparation and characterization of controlled-release doxazosin mesylate pellets using a simple drug layering-aquacoating Technique. **Journal of Pharmaceutical Investigation** 2013; 43:333–342.
19. Saab MM, El-Massik MA, Boraie NA, Design and evaluation of mucoadhesive buccal patches for local delivery of chlorhexidine digluconate. **Int. J. Drug Formulation and Research**, 2012; 3: 89-107
20. Elnaggar YSR, EL-Massik MA, Abdallah OY, Fabrication, Appraisal, and Transdermal Permeation of Sildenafil Citrate Loaded Nano-structured Lipid Carriers versus Solid Lipid Nanoparticles. **International Journal of Nanomedicine** 2011; 6: 3195–3205.
21. Elnaggar YSR, EL-Massik MA, Abdallah OY, Sildenafil citrate nanoemulsion vs. self-nanoemulsifying delivery systems: rational development and transdermal permeation **Int. J. Nanotechnol.** 2011; 8 (8/9):749- 763.
22. Abou yousef NA , El Massik MA, Boraie NA. Preparation and in-vitro evaluation of gastro-retentive floating emulsion gel beads of calcium pectinate. **Int. J. Drug Formulation and Research.** 2011; 2 (3): 115-125.
23. Nafea EH, Saad MM, El-Massik MM, El-Khordagui LK, Marei MK, Khalafallah NK. Development of porous PLGA microspheres for dental tissue engineering applications. **Alex. J. Pharm. Sci.** 2011; 25 (1): 19-25.
24. Hazzah HA, EL-Massik MA, Abdallah OY. Physical Characterization of Imported and Locally Made Placebo Pellets. **Alex. J. Pharm. Sci.** 2010; 24 (2): 90 – 97.
25. Elnaggar YS, EL-Massik MA, Abdallah OY, and Ebian AR. Maltodextrin: A Novel Excipient Used in Sugar-Based Orally Disintegrating Tablets and Phase Transition Process. **AAPS PharmSciTech.** 2010; 11 (2): 645-651.
26. EL Refaie WM, EL-Massik MA, Abdallah OY, Khalafallah NM. Preparation and Evaluation of Taste Masked Lipid-Based Paracetamol Granules. Presented as a poster in The **First International Pharmaceutical Conference “Recent Advances In Pharmaceutical Research and Techonolgy”**, May 2010 , Beirut Arab university , Beirut , Lebanon.
27. Elnaggar YSR, EL-Massik MA, Abdallah OY. Self-nanoemulsifying drug delivery systems of tamoxifen citrate: Design and Optimization. **Int.J. Pharm.** 2009; 380 (1-2): 133-141.

28. Ramadan AA, EL-Massik MA, El-Khordagui LK, Khalafallah NA, Daabis NA. Development of clobetasol propionate solid lipid nanoparticles gel for dermal delivery. **XXIII<sup>èmes</sup> Journées Scientifiques du GTRV**, 8-10 Decembre 2008, Angers, France.
29. EL-Massik MA. Preparation and evaluation of extended release doxazosin lipid-matrix granules. **Alex. J. Pharm. Sci.** 2007; 21 (2): 111-117.
30. Nafea EH, EL-Massik MA, EL-Khordagui LK., Marei MK, Khalafallah NM. Alendronate PLGA microspheres with high loading efficiency for dental applications. **J. Microencapsulation** 2007; 24 (6): 525-538.
31. Nasra MA, EL-Massik MA and Naggar VF. Development of metronidazole colon specific drug delivery systems. **Asian J. Pharm. Sci.** 2007; 2 (1): 18-28.
32. Nafea EH, EL-Massik MA, EL-Khordagui LK., Marei MK, Khalafallah NM. Development of porous PLGA microspheres for dental tissue engineering applications. **US-Egypt workshop on Tissue Engineering "Research, Applications and Technology Development Cairo- Egypt, January, (2006).**
33. EL-Massik MA , Ramadan AA, El Khordagui LK, Daabis NA, Hammouda Y. Investigation of a surface- treatment technique involving interactions at the solid-liquid Interface, **Alex. J. Pharm. Sci.** 2006 20 (2): 83- 89.
34. EL-Massik MA, Abdallah OY, Galal S, Daabis NA. Towards a universal dissolution medium for carbamazepine. **Drug Dev. Ind. Pharm.** 2006; 32 (7): 893-905.
35. Ramadan AA, EL-Massik MA, El Khordagui LK, Daabis NA, Hammouda Y. Surface treatment: A potential approach for enhancement of solid- state photostability. **Int. J. Pharm.** 2006; 307: 141-149.
36. EL-Massik MA. Development of cetirizine chewable tablets with inhibited bitterness using liquisolid compact technology. **Alex. J. Pharm. Sci.** 2006; 20: 11-16.
37. EL-Massik MA. Physicochemical characterization of coprecipitates of furosemide with tromethamine.. **Alex. J. Pharm. Sci.** 2005; 19, 1-7.
38. Galal S, EL-Massik MA, Abdallah OY, Daabis NA. Study of in-vitro release characteristics of carbamazepine extended release semisolid matrix filled capsules based on gelucires. **Drug Dev. Ind. Pharm.** 2004; 30: 817-829.
39. Galal S, EL-Massik MA, Abdallah OY, Daabis NA. Formulation of fast release glibenclamide liquid and semisolid matrix filled capsules. **Acta Pharm.** 2003; 53: 57-64 (2003).

40. EL-Massik MA, Abdallah OY, S. Galal S, Daabis NA. Semi-solid matrix filled capsules; An approach to improve dissolution stability of phenytoin sodium formulations. **Drug Dev. Ind. Pharm.** 2003; 29: 531-543.
41. EL-Massik MA, Shafik A, Abdel Razek M, El Khordagui LK and Khalil S. Formulation and evaluation of fast release phenytoin acid tablets. **Alexandria Second International Conference of Pharmaceutical Sciences & Technology**, Alexandria, Egypt, October 25-27 (2000).
42. EL-Massik MA, Shafik A, Abdel Razek M, El Khordagui LK and Khalil S. Study of the factors possibly involved in the fluctuation of *in vitro* performance of phenytoin sodium capsules. **Alexandria Second International Conference of Pharmaceutical Sciences & Technology**, Alexandria, Egypt, October 25-27 (2000).
43. EL-Massik MA , Ramadan AA, El Khordagui LK, Daabis NA, Hammouda Y Manipulation of powder characteristics by interactions at the solid/liquid interface 2 : praziquantel. American Pharmaceutical Association (APhA 2000) Conference, Washington **DC, USA**, March 10-14 (2000).
44. Darwish IA, EL-Massik MA, Hassan E, El Khordagui LK. Assessment of a hydroalcoholic surfactant solution as a medium for dissolution testing of Phenytoin. **Int. J. Pharm.**1996; 140: 25.
45. Ismail F, EL-Massik MA, N. Boraie N and O.Y. Abdallah OY. Improvement of *in vitro* availability of glibenclamide via combination with non porous fumed silicon dioxide. **Acta Pharm.** 1996; 46: 229.
46. EL-Massik MA, Darwish IA, Hassan E, EL Khordagui LK. Development of a dissolution medium for glibenclamide. **Int. J. Pharm.**, 140, 69 (1996).
47. EL-Massik MA, Abdallah OY. A study of the stability of polymer granulated aminophylline in fatty suppositories. **International Conference of Pharmaceutical Sciences and Technology**, March 22-25, Alexandria, Egypt (1995).
48. EL-Massik MA. Preparation and *in vitro* evaluation of diltiazem hydrochloride controlled release tablets. **Alex. J. Pharm. Sci.** 1991; 5:139-143.
49. EL-Massik MA, EL Gholmy ZA, Abdallah OY and Hammouda Y. Comparative evaluation of commercial brands of co-trimoxazole tablets with a new improved formulation. **Eur. J. Pharm. Biopharm.** 1991; 37: 19-24.

50. EL-Massik MA, EL Gholmy ZA, Abdallah OY and Hammouda Y. Optimization of furosemide tablets, Part 3: Enhancement of dissolution rate of furosemide via solvent deposition on a soluble carrier. **Eur. J. Pharm. Biopharm.** 1991; 37: 24- 29 .
51. M.A. Etman, M.H. Abdel Hamid, F. Ismail, **M.A. EL-Massik**, N. Khalafalla and S. Khalil. *In vitro* and *in vivo* bioavailability of two brands of diclofenac enteric coated tablets. **Alex J. Pharm. Sci.**, 4, 119-122 (1990).
52. Abdallah OY, EL Gholmy ZA, EL-Massik MA, Hammouda Y. Optimization of furosemide tablets, Part 2: Polymorphism of furosemide. **Acta Pharm Tech.** 1989; 35: 25- 29 .
53. Hammouda Y, EL-Massik MA. Optimization of rectal absorption : Ketoprofen suppositories **Second National Meeting of the American Association of Pharmaceutical Scientists, Boston**, June, (1987).
54. Hammouda Y, EL-Massik MA. Optimization of furosemide tablets. **First National Meeting of the American Association of Pharmaceutical Scientists, Washington D.C.**, November (1986).
55. Hammouda Y, EL-Massik MA. Optimization of prednisone tablets. Accepted for oral presentation at the **4<sup>th</sup> Inter. Conf. Pharm. Techn. Paris**, June (1986).
56. Hammouda Y, EL-Massik MA. Optimization of sulfadiazine tablets. **APhA Academy of Pharm. Sciences, 37th National Meeting-Pharm. Sci., Philadelphia** (1984).
57. Hammouda Y, EL-Massik MA. Effect of crystal habit and solvation on compaction and dissolution of theophylline.. **APhA Academy of Pharm. Sciences, 35<sup>th</sup> National Meeting-Pharm. Sci., Florida**, November (1983).
58. EL Fattah SA, EL-Massik M, Salib NN. Preparation and in vitro evaluation of prolonged release tablets of pheniramine amino-salicylate. **Drug Dev. Ind. Pharm.** 1984; 10: 809.
59. EL Fattah SA, EL-Massik M, Salib NN. A new approach for controlling the release rate of pheniramine amino-salicylate via solid dispersion in different types of Eudragit.. **Drug Dev. Ind. Pharm.** 1984; 10: 649.
60. . Salib NN, EL-Fattah SA, **EL-Massik MA**. Preparation and in vitro evaluation of controlled release mepyramine maleate-carbopol 934 entrapped systems. **Pharm. Ind.** 1983; 9: 902.

## Conferences & workshops

- “Molecular techniques in nucleic acids and proteins” a workshop offered by University of Alexandria Research Center (1999) - **Attendance**
- “High Performance Liquid Chromatography” a workshop offered by Faculty of Pharmacy, University of Alexandria (2003) - **Attendance**
- Seven workshops namely, Management skills; Ethics of the profession; Time and stress management; Decision making and problem solving; New trends in teaching, Teaching evaluation and Scientific research management delivered by Faculty and Leadership Development Center, Alexandria University (2005- 2006). **Attendance.**
- Six Leadership workshops delivered by Institute of International Education (IIE), during the period of **2011-2016 at PUA**. They included; Strategic leadership, Team Leadership, Culture and Leadership, Blended learning, Leading Changes and Developing Evaluation Plans for University Programs – **Organization and attendance.**
- “Continuing professional development in teaching and learning program” –6 days workshop, delivered in 2 days block, at PUA by IIE in collaboration with The American University in Cairo (2012)- **Organization and attendance.**
- “Teaching and Learning Strategies” (Four workshops), operated by the PUA Education Development Center (2012)-**Organization and attendance.**
- “Assessment Strategies” (Two workshops), operated by the PUA Education Development Center (2012) - **Organization and attendance.**
- “The Role of Education in Democratic Societies”, a workshop organized by the Swedish Institute in Alexandria in collaboration with the Lund University, Uppsala University and Stockholm University (2013). **Participation with a presentation about role of private education in Egypt.**
- “University Leadership and Management in an international context” a workshop organized by DAAD and held on 23 and 24 **November 2014** in Cairo. **Attendance.**
- “The Internationalization of Higher Education in Egypt” a seminar held under the Umbrella of CTTC (Cairo Talks on Transformation and Change), held on 17 June **2014** at the German Academic Exchange Service (DAAD) in Cairo- **Attendance**
- “Fostering Entrepreneurship and Employability in Higher Education. Workshop organized by NAQAAE and EU, **January 2015. Attendance.**
- “The Mediterranean and Middle East University Network Association (MUNA)” Meeting organized by Naples Federico II University, Italy, **June 2015. Attendance and participation.**
- “The networked university: opportunities and challenges for higher education between the Arab World and Europe”. Conference organized by European Universities Association and University of Barcelona, in TU Berlin, EL-Gouna Egypt, **October 2015. Attendance.**
- “PUA International Conference on Advances in Pharmaceutical Sciences”, held at Pharos University in Alexandria Egypt, **October 2015 Organization and attendance.**
- “The Knowledge Cycle” workshop delivered by Elsevier at AU Faculty of Pharmacy, **2018. Organization and attendance.**



	<ul style="list-style-type: none"> <li>• “Developing-Institutional Internationalization” a 2-days workshop delivered and organized by Erasmus Plus National Office, at AU Faculty of Medicine, <b>May 2018. Attendance.</b></li> <li>• “Alexandria University International Conference on Pharmaceutical and Healthcare Sciences”, held at Alexandria Hilton Green Plaza, November 2019, <b>Conference Co-Chairman.</b></li> </ul>
<b>Professional and Scientific Activities</b>	<p><b>Research projects:</b></p> <ul style="list-style-type: none"> <li>■ Contribution in the Project No 74 of The Academy of Scientific Research and Technology, about a study on the extent of bioavailability of selected drugs and the reasons for their instability, carried out at Faculty of Pharmacy, Alexandria University (<b>1997-2001</b>).</li> <li>■ Contribution in the preparation of registration files for some pharmaceutical products concerning Middle East Pharmaceutical &amp; Cosmetics Laboratories CO. LTD (MEGA PHARM) GAZA (<b>1996-1997</b>).</li> <li>■ Erasmus+ International Credit Mobility for Staff Training and Teaching- Key Action 1 program (9+1); a project established between the KTH Royal Institute of Technology, Sweden and faculty of Engineering, Pharos University in Alexandria Egypt (<b>2015-2017</b>).</li> <li>■ Erasmus+ International Credit Mobility for Staff Training -Key Action 1 project- (5+1) between Staffordshire University (SU) in the United Kingdom and Pharos University in Alexandria, Egypt (2016-2017).</li> </ul> <p><b>Master/PhD theses supervision:</b></p> <p><i>For attainment of Master degree:</i></p> <ul style="list-style-type: none"> <li>■ “Effects of Interactions at the Solid-liquid Interface on the Properties of Some Pharmaceutical Solids”</li> <li>■ “Liquid and Semisolid-Filled Capsules: A Dosage Form To Solve Some Pharmaceutical Problems”</li> <li>■ “Formulation and evaluation of some antiepileptic oral dosage forms”</li> <li>■ “Development of improved drug delivery systems for action in different parts of the gastrointestinal tract”</li> <li>■ “Pharmaceutical study of polymeric microspheres for dental applications”</li> <li>■ “Cyclodextrins: Potential excipients to solve some pharmaceutical problems”</li> <li>■ “Development and evaluation of selected oral drug delivery systems”</li> <li>■ “Design and evaluation of some mucoadhesive drug delivery Systems”</li> <li>■ " Preparation and evaluation of some Lipid-based oral drug-delivery systems"</li> <li>■ “Preparation and evaluation of gastroretentive dosage forms”</li> <li>■ “Development and evaluation of some multiparticulates drug delivery system”</li> <li>■ “Formulation and Evaluation of Nanosuspensions of some Poorly Soluble Drugs”.</li> </ul>

- Development and evaluation of nano-formulations for local targeting of some triazole derivatives.

***For attainment of PhD degree:***

- "A study of some lipid-based drug delivery systems".
- "Formulation and evaluation of some buccal delivery systems".
- "Development and evaluation of some oral controlled drug delivery systems via manipulating formulation characteristics"
- "Development and Evaluation of Some Disperse Drug Delivery Systems".
- "Design and Evaluation of Some Transmucosal Drug Delivery Systems".
- "Targeted Drug Delivery Systems as an Efficient Approach for Treatment of Some Oral and Maxillofacial Diseases".
- "Development of selected nano-structured systems for modulation of dermal and transdermal drug delivery".
- "Controlled drug delivery to the colon" (Joint Supervision with the University of Queensland, Australia).
- "Design and evaluation of a targeted nano-system for improving the treatment of some cancerous lesions".
- "Nanotechnology and Drug Repositioning Dual Approach for Targeted Colorectal Cancer Therapy"
- "Design and Assessment of Targeted Nano-particulate Drug Delivery Systems for Improved Osteoarthritis Therapy"