Professor Magda EL-Massik Curriculum Vitae

Contact Details

Name: Magda Abdel Samea EL-Massik

Title: Emeritus Professor **Department**: Pharmaceutics

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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

Research Interest

- Design and evaluation of drug delivery systems to solve problems related to the improper physicochemical and biopharmaceutical drug characteristics.
- Development of site specific nano-based drug delivery systems.
- Application of nanotechnology and nanomedicine in targeted cancer therapy

Publications

- 1. Samak YO, Santhanes D, El-Massik MA, Coombes AGA. Formulation strategies for achieving high delivery efficiency of thymoquinone-containing *Nigella sativa* extract to the colon based on oral alginate microcapsules for treatment of inflammatory bowel disease. **J Microencapsul**. 2019; 36 (2):204-214. doi: 10.1080/02652048.2019.1620356. Epub 2019 Jun 4.
- 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. **International Journal of Pharmaceutics** 2018; 548: 609-624.
- Samak YO, EL-Massik MA, Coombes AGA, A Comparison of Aerosolization and Homogenization Techniques for Production of Alginate Microparticles for Delivery of Corticosteroids to the Colon. Journal of Pharmaceutical Sciences 2017; 106:208-216.
- 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. **Drug delivery** 2016; 23 (4): 1409-1419.
- 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. **Pharmaceutical Research** 2015; 32 (9): 2901-2911.
- 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. **International Journal of Pharmaceutics** 2015; 486: 88–98.
- 7. Abou Youssef NA, Kassem AA, EL-Massik MA, Boraie NA, Development of gastroretentive metronidazole floating raft system for targeting Helicobacter pylori. **International Journal of Pharmaceutics** 2015, 486: 297-305.
- 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, Journal of Pharmaceutical Sciences 2015; 104(11): 3913-24.

- 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 6th 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.
- EL-Batouti G, EL-Massik MA, Pharos University in Alexandria; Towards a Learner-Centered Education, presented as a podium at the 1st 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
- 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 youssef 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.

- Ramadan AA, EL-Massik MA, El-Khordagui LK, Khalafallah NA, Daabis NA. Development of clobetasol propionate solid lipid nanoparticles gel for dermal delivery. XXIII^{iemes} Journees 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**th **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, 35th 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 aminosalicylate. 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
- <u>Seven workshops</u> 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.
- <u>Six Leadership workshops</u> 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" (<u>Four workshops</u>), operated by the PUA Education Development Center (**2012**)-Organization and attendance.
- "Assessment Strategies" (<u>Two workshops</u>), 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.
- "Developing-Institutional Internationalization" a 2-days workshop delivered and organized by Erasmus Plus National Office, at AU Faculty of

Medicine, May 2018. Attendance.

 "Alexandria University International Conference on Pharmaceutical and Healthcare Sciences", held at Alexandria Hilton Green Plaza, November 2019, Conference Co-Chairman.

Professional and Scientific Activities

Research projects:

- 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 (1997-2001).
- Contribution in the preparation of registration files for some pharmaceutical products concerning Middle East Pharmaceutical & Cosmetics Laboratories CO. LTD (MEGA PHARM) GAZA (1996-1997).
- 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 (2015-2017).
- 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).

Master/PhD theses supervision:

For attainment of Master degree:

- "Effects of Interactions at the Solid-liquid Interface on the Properties of Some Pharmaceutical Solids"
- "Liquid and Semisolid-Filled Capsules: A Dosage Form To Solve Some Pharmaceutical Problems"
- "Formulation and evaluation of some antiepileptic oral dosage forms"
- "Development of improved drug delivery systems for action in different parts of the gastrointestinal tract"
- "Pharmaceutical study of polymeric microspheres for dental applications"
- "Cyclodextrins: Potential excipients to solve some pharmaceutical problems"
- "Development and evaluation of selected oral drug delivery systems"
- "Design and evaluation of some mucoadhesive drug delivery Systems"
- " Preparation and evaluation of some Lipid-based oral drug-delivery systems"
- "Preparation and evaluation of gastroretentive dosage forms"
- "Development and evaluation of some multiparticulates drug delivery system"
- "Formulation and Evaluation of Nanosuspensions of some Poorly Soluble Drugs".
- 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"