

# Mohamed Aly Haider PhD/MBA

## Personal Details

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## Education

- School of Pharmacy, University of Maryland, Baltimore, Baltimore, Maryland, USA  
**Ph.D., Pharmaceutical Sciences, 2004**  
Thesis: 'Amino Acid-Based Polymers for Gene Delivery'.
- Merrick School of Business, University of Baltimore, Baltimore, Maryland, USA  
**Masters of Business Administration, 2004**  
Overall GPA: 3.9.
- School of Pharmacy, Cairo University, Cairo, Egypt  
**B.Sc., Pharmaceutical Sciences, 1997**  
Excellent degree with honor. Overall GPA 4.0.

## Career History

- **Assistant Professor** - *Department of Pharmaceutics and Pharmaceutical Technology, School of Pharmacy, University of Sharjah, Sharjah, UAE, 09/2011-present*
  - Develop and lecture undergraduate pharmaceutics courses addressing different topics such as formulation of solid dosage forms, sustained release systems, and cosmetic, microencapsulation, pharmaceutical biotechnology, formulation of sterile products, reaction kinetics and drug stability
  - Carry research in the area of drug delivery and drug targeting

- **Consultant and Trainer** - *Archer Business Consultants, Cairo, Egypt, 01/2007-08/2011*
  - Offered technical and management consultation for pharmaceutical companies
  - Developed and provided management training programs for pharmaceutical and medical workers
  - Offered technical consultation for QC department in preparing drug stability files administered to the Egyptian Ministry of Health for drug registration
  
- **Associate Professor** - *Department of Pharmaceutics and Industrial Pharmacy, Faculty of Pharmacy, Cairo University, Cairo, Egypt, 01/2006-present*
  - Developed and lectured graduate and undergraduate pharmaceutics courses addressing different topics such as introduction to pharmaceutics, solid dosage forms, sustained release systems, microencapsulation and pharmaceutical biotechnology, business administration and basics of marketing
  - Lead a research team in the area of developing novel pharmaceutical dosage forms for existing drugs
  
- **Visiting Assistant Professor** – *Department of Pharmaceutics, Misr International University, Cairo, Egypt, 01/2006-01/2007*
  - Developed and lectured undergraduate pharmaceutics courses addressing different topics such as introduction to pharmaceutics, liquid dosage forms
  
- **Postdoctoral Fellow** - *Department of Biomedical Engineering, Johns Hopkins University, Baltimore, MD and Department of pharmaceutical Sciences, University of Maryland, Baltimore, Baltimore, MD, USA, 11/2004 - 12/2005*
  - Conducted an independent research for a collaboration project specializing in adult stem cell therapy for intervertebral discs degeneration.
  - Utilized genetic engineering techniques for the development of injectable scaffolds for replacement of the degenerated discs.
  - Characterized the biological properties of protein polymer scaffolds with respect to cytotoxicity, gene delivery and cell scaffolding.
  
- **Teaching Assistant** - *Department of Pharmaceutics and Industrial Pharmacy, Faculty of Pharmacy, Cairo University, Egypt, 12/1997-8/1999*

- Participated in teaching the practical curriculum in pharmaceuticals (physical pharmacy, liquid and solid dosage forms formulations and dosage form preparation) for undergraduate pharmaceutical sciences students.
  - Lead weekly laboratory practice sessions
  - Contributed to proctoring and grading theoretical and practical exam materials.
- **10/1997 - 4/1999 - Part-time Medical Representative - Merck Sharp & Dhôme-Egypt, Cairo, Egypt**
    - Promoted pharmaceutical product for treatment of cardiovascular diseases

**\*References are available upon request**

### **Achievements**

- Published 12 research articles, 2 review articles and 1 book chapter in the field of controlled release polymer synthesis and characterization and tissue engineering
- Designed and synthesized a new type of genetically engineered protein polymer for drug and gene delivery
- Invited as a speaker in the annual meeting of the controlled release society for work on tissue engineering of stem cells for cartilage repair
- Presented 17 abstracts in many international and local scientific meetings in the field of controlled release and pharmaceuticals
- Elected as secretary of the graduate student association, Department of pharmaceutical Sciences, University of Maryland, Baltimore in 2002/2003 academic year

### **Honors and Awards**

- Controlled Release Society Student Poster Highlights Award, 2005.
- Beta Gamma Sigma Business Honor Society, 2004.
- University of Maryland School of Pharmacy Merit Award, 2003.
- Rho-Chi Pharmacy Honor Society, 2001.
- The Egyptian Ministry of Higher Education Graduate Student Scholarship, 1999-2004.

## **Teaching Experience in Pharmaceutics and Clinical Pharmacy**

- Orientation to Pharmaceutics (prescriptions, types of dosage forms and drug interactions)
- Physical Pharmacy (solution properties, rheology, surface phenomena and colloidal properties)
- Pharmaceutics I (solutions, colloids, suspensions and emulsions).
- Pharmaceutics II (powders, granules, capsules, tablets, tablet coating, cosmetics, dermatologicals, controlled release dosage forms, microencapsulation, suppositories)
- Pharmaceutics III (drug kinetics, aerosols, sterile dosage forms and ophthalmics)
- Community Pharmacy (management of mild conditions, family planning, smoking cessation, special care populations, physical examination, patient compliance and communication skills)
- Pharmaceutical Biotechnology (introduction to biotechnology, methods of gene delivery, methods of peptide and protein delivery)

## **Research Grants**

Collaborative research project grant , University of Sharjah: “ Optimization of in situ microparticles depot injection”, 09/2015-09/2017.

## **Publications**

- **M. Haider**, and H. Ghandehari, *Influence of poly (amino acid) composition on complexation with plasmid dna and transfection efficiency*, Journal of Bioactive and Compatible Polymers 18, p93-111, 2003.
- **M. Haider**, Z. Megeed, D. Li, B.W. O'Malley Jr., J. Cappello and H. Ghandehari, *In vitro and in vivo evaluation of recombinant silk-elastinlike hydrogels for cancer gene therapy*, Journal of Controlled Release, 94 (2-3), p433-445, 2004. **(1<sup>st</sup> coauthor)**
- **M. Haider**, Z. Megeed and H. Ghandehari, *Genetically engineered polymers: status and prospects for controlled release*, Journal of Controlled Release, 95 (1), p1-26, 2004.
- **M. Haider**, V. Leung, F. Ferrari, J. Crissman, J. Cappello, and H. Ghandehari, *Molecular engineering of silk-elastinlike polymers for matrix-mediated gene delivery: biosynthesis and characterization*, Molecular Pharmaceutics, 2 (2), p139-150, 2005.

- R. Dandu, Z. Megeed, **M. Haider**, J. Cappello and H. Ghandehari, *Silk-elastinlike hydrogels: thermal characterization and gene delivery*, in: *Polymeric Drug Delivery: Science & Application*, Svenson S, Editor. American Chemical Society, Washington DC.
- **M. Haider**, A. Hatefi, H. Ghandehari, *Recombinant polymers for cancer gene therapy: a minireview*, *Journal of Controlled Release*, 109(1-3), p108-119, 2005.
- **M. Haider**, J. Cappello, H. Ghandehari and K.W. Leong, *In vitro chondrogenesis of mesenchymal stem cells in recombinant silk-elastinlike hydrogels*, *Pharmaceutical Research* 25(3), p692-9, 2008.
- D. Hwang, V. Moolchandani , R. Dandu, **M. Haider**, J. Cappello and H. Ghandehari, *Influence of polymer structure and biodegradation on DNA release from structurally related silk-elastinlike hydrogels*, *International Journal of Pharmaceutics*, 368(1-2), p215-9, 2009.
- K. Greish, A. Ray, H. Bauer, N. Larson, A. Malugina , D. Pike, **M. Haider** and H. Ghandehari, *Anticancer and antiangiogenic activity of HPMA copolymer-aminohexylgeldanamycin-RGDfK conjugates for prostate cancer therapy*, *Journal of Controlled Release*, 151 (3), p263-270, 2011.
- M. Mohamed, **M. Haider**, M. A. Ali, *Buccal Mucoadhesive Films Containing Antihypertensive Drug: In vitro/in vivo Evaluation*, *Journal of Chemical and Pharmaceutical Research*, 2011, 3(6): p665-686.
- M. F. Yousif, **M. Haider**, A. A. Saleem, *Formulation and evaluation of two anti-inflammatory herbal gels*, *Journal of Biologically Active Products from Nature*, 1 (3) p 200 – 209, 2011.
- **M. Haider**, Development and Validation of a Stability Indicating HPLC Method for the Estimation of Butamirate Citrate and Benzoic Acid in Pharmaceutical Products. *Journal of Chromatography and Separation Techniques* 2(2):111 p1-5, 2011.
- A. Abd-Elbary, **M. Haider**, S. Sayed, *In vitro characterization and release study of Ambroxol hydrochloride matrix tablets prepared by direct compression*, *Pharmaceutical Development and Technology*, 17(5):p562-73, 2012.
- G. Abdelbary , **M. Haider**, *In vitro characterization and growth inhibition effect of nanostructured lipid carriers for controlled delivery of methotrexate*, *Pharmaceutical Development and Technology*, 18(5): p1159-68, 2013.
- **M. Haider**, M. Mohamed and M. Ali, *Formulation and in vitro/in vivo evaluation of buccoadhesive discs for controlled release of calcium channel antagonist*. *American Journal of Drug Discovery and Development*, 4(4): p210-31, 2014.

- **M. Haider**, *Development, in vitro characterization and stability study for matrix tablets containing chlorpheniramine maleate prepared by direct compression*, American Journal of Drug Discovery and Development, 5(1): p1-12, 2015.
- W.M. Talaat, **M. Haider**, S. A. Kawas, N.G. Kandil and D.R. Harding. Chitosan-based thermosensitive hydrogel for controlled drug delivery to the temporomandibular joint. Journal Craniofacial Surgery, 27(3): p735-40, 2016.

## **Abstracts**

- H. Ghandehari, M. El-Sayed, **M. Haider**, A. Nagarsekar, A. Nan, and F. Tajarobi, Intelligent biomaterials: constructs for the next generation of drug delivery systems. First International Conference for Pharmaceutical Industry, Cairo, Egypt, September 27-29, 2000.
- **M. Haider** and H. Ghandehari. Poly amino acid mediated gene delivery: influence of feed comonomer composition on complexation with plasmid DNA. AAPS Workshop on Critical Issues in the Design and Applications of Polymeric Biomaterials in Drug Delivery, Arlington, VA, 2002. **M. Haider**, and H. Ghandehari. Influence of comonomer composition of random copolymers of poly amino acids on complexation with plasmid DNA and transfection efficiency. American Association of Pharmaceutical Scientists 2002 Annual Meeting, Toronto, ON, Canada, 2002.
- H. Ghandehari, Z. Megeed, **M. Haider** and J. Cappello. Controlled delivery of bioactive agents from silk-elastinlike polymers. Third International Silk Conference, Montreal, Quebec, Canada, 2003.
- H. Ghandehari, Z. Megeed, **M. Haider**, B.W. O'Malley Jr., D. Li, and J. Cappello. Gene delivery from recombinant silk-elastinlike hydrogels. 226<sup>th</sup> American Chemical Society National Meeting, New York, NY, 2003.
- Z. Megeed, **M. Haider**, D. Li, B.W. O'Malley Jr., J. Cappello and H. Ghandehari. Recombinant polymers for gene delivery. American Chemical Society 2003 Regional Meeting-Symposium on Recent Advances in Gene and Drug Delivery, Pittsburgh, PA, 2003.
- **M. Haider** and H. Ghandehari. Size dependent release of plasmid DNA from silk-elastinlike hydrogels. American Association of Pharmaceutical Scientists 2003 Annual Meeting, Salt Lake City, UT, 2003.

- H. Ghandehari, Z. Megeed, **M. Haider**, R. Dandu, D. Li, B. W. O'Malley Jr., and J. Cappello. Localized delivery of plasmid DNA and adenoviral vectors for cancer gene therapy by recombinant silk-elastinlike polymers. 6<sup>th</sup> International Symposium on Polymer Therapeutics: From Laboratory to Clinical Practice, Welsh School of Pharmacy, Cardiff University, Cardiff, United Kingdom, 2004.
- H. Ghandehari, Z. Megeed, **M. Haider**, R. Dandu, D. Li, B.W. O'Malley Jr., and J. Cappello, Matrix-mediated gene delivery from recombinant polymers, American Association of Pharmaceutical Sciences Conference on Pharmaceutics and Drug Delivery, Philadelphia, PA, 2004.
- **M. Haider**, J. Cappello and H. Ghandehari. Gene delivery from recombinant silk-elastinlike hydrogels: in vitro release and biosynthesis. 31<sup>st</sup> Annual Meeting & Exposition of the Controlled Release Society, Honolulu, HI, 2004.
- **M. Haider**, V. Leung, J. Crissman, F. Ferrari, J. Cappello J and H. Ghandehari, Biosynthesis of recombinant silk-elastinlike polymers for controlled gene deliver. American Association of Pharmaceutical Scientists Annual Meeting, Baltimore, MD, 2004.
- **M. Haider**, V. Leung, F. Ferrari, J. Crissman, Joseph Cappello and H. Ghandehari, Molecular engineering of silk-elastinlike polymers for evaluation of the influence of polymer composition on hydrogel swelling behavior. Era of Hope 2005 Department of Defense Breast Cancer Research Program Meeting, Philadelphia, PN, 2005.
- **M. Haider**, J. Cappello, J. Powell, and H. Ghandehari, Molecular Engineering of Silk-Elastinlike Hydrogels: Influence of polymer composition on rheological properties and swelling behavior. 32<sup>nd</sup> Annual Meeting & Exposition of the Controlled Release Society, Miami Beach, Fl, 2005.
- V. Moolchandani, **M. Haider**, and H. Ghandehari. In Vitro Release of Plasmid DNA from Structurally Related Silk-Elastinlike Hydrogels. 32<sup>nd</sup> Annual Meeting & Exposition of the Controlled Release Society, Miami Beach, Fl, 2005.
- **M. Haider**, H. Ghandehari and K.W. Leong. Genetically Engineered Silk-Elastinlike Hydrogels for the Culture of Human Mesenchymal stem cells. Third International Nanomedicine and Drug Delivery Symposium, Baltimore, MD, 2005.

- **M. Haider**, H. Ghandehari and K.W. Leong. In Vitro Chondrogenesis of Mesenchymal Stem Cells in Recombinant Silk-Elastinlike Hydrogels. 33<sup>rd</sup> Annual Meeting & Exposition of the Controlled Release Society, Vienna, Austria, 2006.
- A. Abd El-Bary, **M. Haider** and S. Sayed. Formulation and Characterization of Sustained-Released Ambroxol Hydrochloride Matrix Tablets, Egyptian Pharmaceutical Society 31<sup>st</sup> Meeting, Cairo, Egypt, 2008
- G. Abdelbary and **M. Haider**. Nanostructured Lipidic Carriers for Controlled Delivery of Methotrexate: Effect of Formulation Parameters on the Physicochemical Properties, In Vitro Drug Release and Cell Viability. 38<sup>th</sup> Annual Meeting & Exposition of the Controlled Release Society, Maryland, USA, 2011
- **M. Haider**, M. Mohamed and M. Ali. Formulation and In Vitro/In Vivo Evaluation of Buccoadhesive Discs for Controlled Release of Calcium Channel Antagonist. 8<sup>th</sup> International Conference and Exhibition on Pharmaceutics & Novel Drug Delivery Systems during at Madrid, Spain, 2016