

Dr. Osama Abdel-Hakim Aly Ahmed



Personal Information:

Date of birth: 14 April 1971

Nationality: Egyptian

Spoken Languages: Arabic, English.

Contact information

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Career objectives

To play key roles in graduating well educated generations of Pharmacists benefiting their society and to develop technical mastery as a pharmaceutical scientist in the field of drug formulation and novel drug delivery systems, improving people's quality of life.

Current positions

Oct 2006 - Present Lecturer of Pharmaceutics, Department of Pharmaceutics and Industrial Pharmacy, Faculty of Pharmacy, El-Minia University.

Education

Oct 2002-June 2006 Doctor of Philosophy, Department of Pharmacy and Pharmacology, University of Bath, UK.

Thesis: Formulation of DNA Condensed by Lipopolyamines

Oct 1995-May 1999 Master of Science, Department of Industrial Pharmacy, Faculty of Pharmacy, Assiut University, Egypt.

Thesis: Preparation and Evaluation of Sustained Release Formulations of a Model Antihypertensive Agent.

Sept 1988-May 1993 Bachelor of Science, Faculty of Pharmacy, Cairo University, Egypt (very good with honours)

Working experience

Sept. 2009 – present Assistant Professor of Pharmaceutics, Department of Pharmaceutics and Industrial Pharmacy, Faculty of Pharmacy, King Abdulaziz University, Jeddah, KSA

Oct 2006 – Sept. 2009 Lecturer of Pharmaceutics, Department of Pharmaceutics and Industrial Pharmacy, Faculty of Pharmacy, El-Minia University, El-Minia, Egypt

Aug 1999–Oct 2006 Assistant Lecturer of Pharmaceutics, Department of Pharmaceutics and Industrial Pharmacy, Faculty of Pharmacy, El-Minia University, El-Minia, Egypt

May 1999–Aug 1999 Assistant Lecturer of Pharmaceutics, Department of Pharmaceutics and Industrial Pharmacy, Faculty of Pharmacy, Al-Azhar University, Assiut, Egypt

Sept 1995 - May 1999 Instructor of Pharmaceutics, Department of Pharmaceutics and Industrial Pharmacy, Faculty of Pharmacy, Al-Azhar University, Assiut, Egypt

Research skills

Pharmaceutics: Nanoparticles formulation, Gene delivery

Cell/Molecular biology: Human tissue culture, Gene amplification and purification, Transfection, In-vitro toxicity assay, Enzymatic assay, Fluorescent-activated cell sorting,

Microbiology: Microbial screening, Microbial biochemical/enzymatic assay

Analytical chemistry: Fluorescence spectroscopy techniques, Physicochemical properties measurements, UV, UV/Fluorescence-HPLC, MS.

Pharmaceutical chemistry: Bioconjugates design and synthesis, Bio-membrane chemistry, Self assembly nanotechnology

Leadership

Co-supervising 4 postgraduates (3 master degree and 1 PhD) in the field of Pharmaceutics

Trained several research students to operate different laboratory instruments. Mentored younger students (project and summer students) with their research in Egypt and UK.

Key academic presentations

1. Formulation and delivery of p-EGFP DNA condensed by a synthetic lipospermine, **(POSTER)** British Pharmaceutical Conference, Royal Pharmaceutical Society of Great Britain, Manchester, UK, September 4th–6th (BPC 2006).
2. N^4,N^9 -Dimyristoyl spermine is a non-viral cationic lipid vector for plasmid DNA formulation, **(POSTER)** 5th World Meeting on Pharmaceutics Biopharmaceutics and Pharmaceutical Technology, Geneva, Switzerland, March 27th–30th, 50, 2006.
3. Varying the Unsaturation in C18-Lipid Moieties of Spermine-Based Cationic Lipids for More Efficient Non-Viral Gene Delivery, **(POSTER)** 5th World Meeting on Pharmaceutics Biopharmaceutics and Pharmaceutical Technology, Geneva, Switzerland, March 27th–30th, 50, 2006..
4. Condensation and non-viral gene delivery to primary cells by designed lipopolyamines, **(ORAL)** Royal Society of Chemistry Bio-Organic Subject Group, Postgraduate meeting, School of Chemistry, University of Southampton, UK, December 14th (RSC Bioorg 2005).
5. Efficient non-viral gene delivery using unsaturated C18-lipid conjugates of spermine, **(POSTER)** European Federation for Pharmaceutical Sciences, Versailles, France, November 20th–23rd, 156, (EUFEPS 2005).
6. N^4,N^9 -Dimyristoyl spermine is a non-viral cationic lipid vector for plasmid DNA formulation, **(POSTER)** European Federation for Pharmaceutical Sciences, Versailles, France, November 20th–23rd, 157, (EUFEPS 2005).
7. N^4,N^9 -Dimyristoyl Spermine is a Non-Viral Cationic Lipid Vector for Plasmid DNA Formulation, **(POSTER)** British Pharmaceutical Conference, Royal Pharmaceutical Society of Great Britain, Manchester, UK, September 26th–28th, S-52, (BPC 2005)..
8. Varying the Unsaturation in C18-Lipid Moieties of Spermine-Based Cationic Lipids for More Efficient Non-Viral Gene Delivery, **(POSTER)** British Pharmaceutical Conference, Royal Pharmaceutical Society of Great Britain, Manchester, UK, September 26th–28th, S-52, (BPC 2005).
9. Non-viral Formulation of DNA Using N^2, N^3 -Dioleoyl Spermine, **(POSTER)** British Pharmaceutical Conference, Royal Pharmaceutical Society of Great Britain, Manchester, UK, September 27th–29th, S-31, (BPC 2004).
10. Preparation and In-Vitro Evaluation of Floating Sustained-Release Captopril Tablets and Capsules, **(ORAL)** 26th conference of the Egyptian Pharmaceutical Sciences Association, Cairo, Egypt, December 8th–10th (1998).

Publications

1. A. K. Hussein, M. A. Ibrahim, M. A. Amin, **O. A. A. Ahmed** and M. I. Afouna. Improved in vitro dissolution parameters and in vivo hypolipidemic efficiency of atorvastatin calcium through the formation of hydrophilic inclusion complex with cyclodextrins. *DRUG DEV. RES.*, 72: 1-12 (2011)
2. A. I. Mohamed, M. I. Abdel-Tawab, **O. A. A. Ahmed**, M. A. Kassem. Hydrophilic drug-loaded PLGA nanoparticles: systemic study of particle size and drug entrapment efficiency. *B-FOPCU*, 48 (1): A17-A37 (2010)
3. A. I. Mohamed, M. I. Abdel-Tawab, **O. A. A. Ahmed**, M. A. Kassem. The role of drug-polymer interactions on the release of water-soluble drugs from biodegradable polymer matrix. *Bull. Fac. Pharm. Cairo Univ.*, **47(1)**: 127-150 (2009)
4. H. M. Ghonaim, **O. A. A. Ahmed**, C. Pourzand and I. S. Blagbrough. Varying the Chain Length in N^4,N^9 -Diacyl Spermines: Non-Viral Lipopolyamine Vectors for Efficient Plasmid DNA Formulation. *Mol. Pharm.* **5(6)**: 1111-1121 (2008)
5. **O. A. A. Ahmed**, C. Pourzand, and I. S. Blagbrough. Varying the unsaturation in N^4,N^9 -dioctadecanoyl spermines: nonviral lipopolyamine vectors for more efficient plasmid DNA formulation. *Pharm. Res.* **23**:31-40 (2006).
6. **O. A. A. Ahmed**, N. Adjimatera, C. Pourzand, and I. S. Blagbrough. N^4,N^9 -Dioleoyl spermine is a novel nonviral lipopolyamine vector for plasmid DNA formulation. *Pharm. Res.* **22**:972-980 (2005).
7. I. S. Blagbrough, N. Adjimatera, **O. A. A. Ahmed**, A. P. Neal, and C. Pourzand. Spermine and lipopolyamines as gene delivery agents. In D. J. Beadle, I. R. Mellor, and P. N. R. Usherwood (eds), *Neurotox '03: Neurotoxicological targets from functional genomics and proteomics*, SCI, London, 2004, pp. 147-159.
8. S. H. Khidr, S. I. Abd El-Rahman, E. M. Fettoh, and **O. A. A. Ahmed**. Preparation and In-Vitro Evaluation of Floating Sustained-Release Captopril Tablets and Capsules. *Bull. Pharm. Sci. Assiut University* **23**:85-90 (2000).

Research Projects

2011-2013 Grant funded by King Abdulaziz City for Science and Technology (KACST)- KSA -10-MED1106-3 - Transdermal Delivery of The Antidiabetic Drug Glimepiride: A Novel Approach to Improve Percutaneous Management of Diabetes Within the Saudi Society.

Awards

2000 – Ministry of Higher Education scholarship award, Egyptian government.
2006 – ParOwn post-doc award (Ministry of Higher Education) for 3-months in UK

Extra-curriculum, social & professional activities

1. Demonstration for undergraduate Courses in Pharmaceutics, Department of Pharmacy and Pharmacology, University of Bath, UK, 2002-2006.
2. Committee member of the Egyptian Students Society in UK, 2005-2006.

Professional societies

The European Federation for Pharmaceutical Sciences
The Egyptian Pharmaceutical Sciences Association

References

1. **Dr Ian S Blagbrough**, Senior Lecturer, Department of Pharmacy and Pharmacology, University of Bath, Bath, UK
email: prsisb@bath.ac.uk
2. **Dr. Charareh Pourzand**, Lecturer, Department of Pharmacy and Pharmacology, University of Bath, Bath, UK
email: prscap@bath.ac.uk
3. **Dr. Khaled A Khaled**, Associate professor, Department of Pharmaceutics, El-Minia University, El-Minia, Egypt.
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