**Ossama Mohamed Mahmoud Sayed**

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**Lecturer of Pharmaceutics and Industrial Pharmacy**

**Summary**

10 years of experience as a teaching assisstant and researcher. Comprehensive knowledge of drug delivery through biological barriers, derived from extensive graduate training in UCL School of Pharmacy and Beni Suef Univerisity. Multi-year of research has focused on skin and buccal drug delivery. Research has provided pivotal information in understanding biological barriers characteristics and stratigies to deliver drugs through these barriers. Key research expertise areas include: buccal delivery, skin delivery, and cosmetics. Professional Training includes: Permeation studies, Chromatoghraphy, and In vivo studies.

# Experience

Faculty of Pharmacy, Beni Suef University, Beni Suef, Egypt 2005 to 2009

## Demonstrator

Experimental demonstration of :

1- Dosage formulations;

2 -Physical Pharmacy;

1. Pharmacokinetics;
2. Industrial Pharmacy.

UCL School of Pharmacy, London, UK 2010 to 2011

## Visiting Scientist

Working on PhD project under supervision of Prof. Jonathan Hadgraft and Dr. Majella Lane at the Pharmaceutics Department, UCL School of Pharmacy. The research project was focusing on the buccal delivery of a variety of drugs and the effect of different solvents on the permeation of the drugs through buccal mucosa

h Poster presentation at Skin Forum 2011

Faculty of Pharmacy, Beni Suef University, Beni Suef 2010 to 2013

## Assistant Lecturer

Experimental demonstration of :

1- Dosage formulations;

2 -Physical Pharmacy;

1. Pharmacokinetics;
2. Industrial Pharmacy.

Faculty of Pharmacy, Beni Suef Univeristy., Beni Suef, Egypt 2013 to Present

## Lecturer of Pharmaceutics

**Education**

Faculty of Pharmacy, Cairo University, Beni Suef 2003

Bachelor of Science, BSc. in Pharmaceutical Sciences

Faculty of Pharmacy, Cairo University, Cairo 2009

Master of Science, MSc. in Pharmaceutical Sciences (Pharmaceutics)

Faculty of Pharmacy, Beni Suef University, Beni Suef 2013 Ph.D., Ph.D. in Pharmaceutics

h HPLC

h Drug Delivery

h Formulation Development h Laboratory Techniques h Skin Care

h In Vivo Studies

h Permeability

h University Teaching

# Skills

**Articles and Publications**

"Comparative pharmacokinetic study of two prokinetic drugs in the form of buccal gels against their market products.." International Journal of Drug Delivery. January 2014. This study was to investigate the efficiency of buccal dosage forms to deliver poor orally absorbed drugs.

Two buccal gel formulations containing two gastrokinetic drugs with low oral bioavailability; domperidone and mosapride citrate; were tested against their market products. Twenty-four volunteers were enrolled in this

study divided into two groups in a single dose, two treatment and two periods cross over design. Both buccal

formulations achieved high relative bioavailabilities (Frel) compared to the market products where buccal gel of domperidone achieved Frel of 202% and buccal gel of mosapride citrate achieved 162%. The study reveals

the importance of the buccal route for administration of poorly absorbed drugs from the gastrointestinal tract.

"Development and characterization of ketorolac tromethamine osmotic pump tablets." J. DRUG DEL. SCI. TECH., 23 (3). May 2013, 275-281. The aim of the present study was to prepare and evaluate elementary osmotic pump tablets (OPT) of

ketorolac tromethamine (KT). Because of its high potency, short half-life and excellent water solubility it would appear to be the drug of choice for these formulations. Twenty OPT formulae were prepared and subjected to release-rate study and the release data were analyzed to determine the drug release order. Compatibility study between KT and the used excipients was carried out also scanning electron microscopy in order to elucidate the microporous nature of the tablet surfaces. The effects of an increase in weight, agitation intensity, pH and type of coating polymer on drug release from the optimal formulation (OPT-19) were studied. It was found that the optimal OPT formula was able to deliver KT at a zero-order for up to 12 h independent of both release media and agitation rates; the effect of type of coating polymer was not significant

"Preparation and characterization of mosapride citrate inclusion complexes with natural and synthetic cyclodextrins." Pharmaceutical Development and Technology. December 2011. The aim of this work was to investigate the inclusion complexes between mosapride citrate and SBE7B-CD in

comparison with the natural B-CD to enhance its bioavailability by improving the solubility and dissolution

rate. The complexation efficiency value of SBE7B-CD was higher than that for B-CD. Solid binary systems of

mosapride citrate with CDs were prepared by physical mixing, kneading and freeze-drying techniques at molar ratio of 1:1(drug:CD). Physicochemical characterization of the prepared systems was studied using X-ray diffractometry, differential scanning calorimetry, Fourier-transform infrared spectroscopy and scanning electron microscopy (SEM). Amorphous drug was detectable to large extent in inclusion complexes prepared

using the freeze-drying technique. From the dissolution study of different inclusion complexes in simulated saliva solution (pH 6.8), we could concluded that irrespective of the preparation technique, the systems prepared using SBE7B-CD showed better performance than the corresponding ones prepared using B-CD.

In

addition, the freeze-drying technique showed superior dissolution enhancement than other methods especially

when combined with the SBE7B-CD

# Courses

EPS XXXI Conference of Pharmaceutical Sciences, The Egyptian Pharmaceutical Society, Cairo, Egypt, 2008

Skin Forum 12th Annual Meeting (Penetrating the Stratum Corneum - Measurement, Modulation and Modelling), Skin Forum- APV, the Campus Westend, Frankfurt, Germany, 2011. Participated with poster titled:

"Applications of Cyclodextrins in Drug Delivery"

FUE International Conference on Pharmaceutical Sciences, Future University in Egypt, Cairo, Egypt, 2013 Teambuilding for Team Leaders, DAAD Kairo Akademie, Beni Suef, Egypt, 2013

Self-Marketing, DAAD Kairo Akademie, Beni Suef, Egypt, 2013

# Honors and Awards

Award of excellence and first of Calss 2003, Faculty of Pharmacy, Cairo University (Beni Suef Branch), Beni Suef, Egypt, 2003

Short term scholarship for PhD lab work, Ministry of Higher Education, Missions Sectors, UCL School of Pharmacy, London, UK, 2010 to 2011. Worked as visiting scientist in Skin Research group.

# Volunteer Work

Egypt Scholars Inc., US 2013 to Present

## Webinar Moderation Team Leader

Supervising and conducting moderation for scientific webinars in a variety of subjects adressing fresh graduates and scholars.