

## **Marwa Elsherbiny**

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Citizenship status: Egyptian/Canadian

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### **Education**

**2018-2019** “Introduction to the principles and practice of clinical research” program.

Clinical Center, the National Institutes of Health and Clinical Center, United States of America.

**2005-2010 PhD** Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Alberta, Canada.

**1996-2001 BSc** Faculty of Pharmacy, Cairo University, Egypt.

### **Research Experience**

#### **2013-Present**

**Lecturer** Faculty of Pharmacy, Ahran Canadian University, Giza, Egypt.

**Visiting researcher** Zewail City of Science, Technology and Innovation, Center for aging and associated diseases.

#### **2011-2015**

**Postdoctoral Fellow** Department of Oncology, University of Alberta, Alberta/Canada Alberta.

#### **2010-2011**

**Scientific Consultant<sup>+</sup>** Mundipharma Research/Limburg/Germany.

#### **2005-2010**

**Teaching Assistant** Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Alberta, Canada.

#### **2005-2010**

**PhD Candidate** Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Alberta, Canada.

#### **2002-2004**

**Pharmacist** Atomic Energy Authority, Cairo, Egypt.

<sup>+</sup> Under the supervision of Prof. Dr. Fakhreddin Jamali, Professor of Pharmacokinetics at faculty of pharmacy, University of Alberta.

## **Teaching Experience**

2013-Present

**Lecturer** Faculty of Pharmacy, Ahrum Canadian University, Giza, Egypt.

June-July 2018

**Instructor** Faculty of Pharmacy, Cairo University, Giza, Egypt.  
**(Pharmacovigilance Diploma)**

2005-2010

**Teaching Assistant** Faculty of Pharmacy and Pharmaceutical Sciences,  
University of Alberta, Alberta, Canada.

### **I instructed/coordinated the following courses:**

#### **1. Faculty of Pharmacy, Ahrum Canadian University**

- Clinical Pharmacology
- Pharmacology-1 [Introduction to Pharmacology and Autonomic Pharmacology]
- Screening and Biological Standardization of Drugs

#### **2. Faculty of Pharmacy, University of Alberta (as a teaching assistant)**

- Pharm 361 Pharmaceutics-2
- Pharm 331 Pharmaceutics-1
- Pharm 307 Dermatology, Eye, Ear, Nose and Throat

Teaching duties at University of Alberta included preparing instructional lab material, teaching, demonstrating and discussing lab material with the students in the labs and pre-lab seminars. I was awarded the **Graduate Student Teaching Award** (by the University of Alberta) in 2010 for excellence in teaching.

### **Quality Assurance Experience:**

2014-2018

**Head of Community Service Committee, Faculty of Pharmacy, Ahrum Canadian University, Giza, Egypt.**

In collaboration with members of the committee we have organised several community service programs and events which includes disease and drug use awareness campaigns, scientific seminars and conferences. I was awarded **two Ahram Canadian University's Medals of Honor** for helping in organising TEDx conference on March-8<sup>th</sup>- 2017 and Certification and Training Day on April-26<sup>th</sup>-2017.

## **Publications**

### **Peer-reviewed, Published**

Nada Monir, Mona M.Saber, Azza S.Awad, **Marwa E.Elsherbiny**, Hala F.Zaki. TLR9: A friend or a foe. Life Sciences Volume 307, 15 October 2022, 120874. <https://doi.org/10.1016/j.lfs.2022.120874>

Nada Monir, Mona M.Saber, Azza S.Awad, **Marwa E.Elsherbiny**, Hala F.Zaki. Repression of inflammatory pathways with Boswellia for alleviation of liver injury after renal ischemia reperfusion. Life Sciences Volume 306, 1 October 2022, 120799. <https://doi.org/10.1016/j.lfs.2022.120799>

Rehab Kamel,Engy M. El Morsy,**Marwa E. Elsherbiny**,Mahmoud Nour-Eldin. Chrysin promotes angiogenesis in rat hindlimb ischemia: Impact on PI3K/Akt/mTOR signaling pathway and autophagy. Drug Development Research. 05 June 2022 <https://doi.org/10.1002/ddr.21954>

Islam E. Elkholi, **Marwa E Elsherbiny**, Marwan Emara. Myoglobin: from normal physiological role to potential implications in cancer. Biochimica et Biophysica Acta - Reviews on Cancer. <https://doi.org/10.1016/j.bbcan.2022.188706>

Ahmed S. Kamel, Ahmed F. Mohamed, Mostafa A. Rabie, **Marwa E Elsherbiny**, Kawkab A. Ahmed, Mahmoud M. Khattab, Noha F. Abdelkader. Experimental evidence for diiodohydroxyquinoline-induced neurotoxicity: Characterization of age and gender as predisposing factors. Pharmaceuticals (Basel). 2022 Feb 19;15(2):251. doi: 10.3390/ph15020251.

**Marwa E Elsherbiny**, Mohammed Shaaban, Rana El-Tohamy, Islam E Elkholi, Olfat Ali Hammam, Mona Magdy, Joan Allalunis-Turner, Marwan Emara. Expression of Myoglobin in Normal and Cancer Brain Tissues: Correlation With Hypoxia Markers. Front Oncol. 2021 Apr 30;11:590771. doi: 10.3389/fonc.2021.590771.

Rana El-Tohamy, Islam Elkholi, **Marwa E Elsherbiny**, Mona Magdy, Olfat Hammam, Joan Allalunis-Turner, Marwan Emara. Myoglobin variants are expressed in human glioblastoma cells-hypoxia effect? Oncol Rep. 2020 Mar;43(3):975-985. doi: 10.3892/or.2020.7479. Epub 2020 Jan 23.

Ali MH, **Elsherbiny ME**, Emara M. Updates on Aptamer Research. Int J Mol Sci. 2019 May 21;20(10). pii: E2511. doi: 10.3390/ijms20102511.

**Elsherbiny ME**, Chen H, Emara M, Godbout R.  $\omega$ -3 and  $\omega$ -6 Fatty Acids Modulate Conventional and Atypical Protein Kinase C Activities in a Brain Fatty Acid Binding Protein Dependent Manner in Glioblastoma Multiforme. *Nutrients*. 2018 Apr 6;10(4). pii: E454. doi: 10.3390/nu10040454.

**Elsherbiny ME**, Goruk S, Monckton EA, Richard C, Brun M, Emara M, Field CJ, Godbout R. Long-Term Effect of Docosahexaenoic Acid Feeding on Lipid Composition and Brain Fatty Acid-Binding Protein Expression in Rats. *Nutrients*. 2015 Oct 22;7(10):8802-17.

Brocks DR, Chaudhary HR, Ben-Eltriki M, **Elsherbiny ME**, El-Kadi AO. Effects of serum lipoproteins on cyclosporine A cellular uptake and renal toxicity in vitro. *Can J Physiol Pharmacol*. 2014 Feb;92(2):140-8.

**Elsherbiny ME**, Emara M, Godbout R. Interaction of brain fatty acid-binding protein with the polyunsaturated fatty acid environment as a potential determinant of poor prognosis in malignant glioma. *Prog Lipid Res*. 2013 Aug 24;52(4):562-570.

**Elsherbiny, M.E.** and Brocks, D.R. 2011; The ability of polycyclic aromatic hydrocarbons to alter physiological factors underlying drug disposition. *Drug Metab Rev*. 43(4):457-75.

Gabr, R.Q., **Elsherbiny, M.E.**, Somayaji, V., Pollak, P.T. and Brocks, D.R. 2011; A liquid chromatography-mass spectrometry method for nicotine and cotinine; utility in screening tobacco exposure in patients taking amiodarone. *Biomed. Chromatogr*. 25(10),1124-1131.

**Elsherbiny, M.E.**, El-Kadi, A.O., and Brocks, D.R. 2010; The effect of beta-naphthoflavone on the metabolism of amiodarone by hepatic and extra-hepatic microsomes. *Toxicol. Lett*. 195: 147-154.

**Elsherbiny, M.E.**, El-Kadi, A.O. and Brocks, D.R. 2010; Assessment of the inactivation potential of desethylamiodarone on human CYP1A1. *Drug Metab. Lett*. 4: 9-14.

**Elsherbiny, M.E.** and Brocks, D.R. . The effect of CYP1A induction on amiodarone disposition in the rat. 2010; *J. Pharm. Sci*. 99(1): 539-48.

**Elsherbiny, M.E.**, El-Kadi, A.O. and Brocks, D.R. 2008; The metabolism of amiodarone by various CYP isoenzymes of human and rat, and the inhibitory influence of ketoconazole. *J. Pharm. Pharm. Sci*. 11(1): 147-59.

## **Abstracts and posters**

**Elsherbiny, M.E.** Insights into the mechanisms by which hyperlipidemia alters drug pharmacokinetics. 57th Egyptian Society of Pharmacology & Experimental Therapeutics Conference held at British University in Egypt on 28th April 2018 (***Third place best poster presentation award***).

**Elsherbiny, M.E.**, Marwan Emara, Roseline Godbout. 2017;  $\omega$ -3 and  $\omega$ -6 Fatty Acids Modulate The Conventional And Atypical Protein Kinase C Activities In A B-FABP Dependent Manner In Malignant Glioma. 14th national conference on biochemistry and molecular biology held by October University for Modern Sciences and Arts in March-2017 (***Third place best poster presentation award***).

**Elsherbiny, M.E.**, Tessier, A., Glubrecht, D., Syme, A., Fallone, G., and Godbout, R. 2011; Establishment of an Intracranial Mouse Model of Malignant Glioma: Investigating the Effect of Brain Fatty Acid-binding Protein Expression on Tumour Characteristics. Care about Cancer meeting.

PT Pollak, R Gabr, **ME Elsherbiny**, DR Brocks. 2010; Closet smoking, a potentially unrecognized risk for amiodarone pulmonary toxicity through p450 induction. Clinical Pharmacology & Therapeutics. (87): S40-S41.

**Elsherbiny, M.E.**, El-Kadi, A.O. and Brocks, D.R. 2010; The effect of hyperlipidemia on p-glycoprotein activity in porcine and rat renal cell line models. CSPS 13<sup>th</sup> Annual Symposium on Pharmaceutical Sciences. (***Best Poster Presentation Award***).

**Elsherbiny, M.E.** and Brocks, D.R. 2009; The effect of CYP1A induction on amiodarone disposition in the rat. CSPS 12<sup>th</sup> Annual Symposium on Pharmaceutical Sciences. (***Best Poster Presentation Award***).

**Elsherbiny, M.E.** and Brocks, D.R. Desethylamiodarone does not inactivate human CYP1A1. 2008; Faculty of Pharmacy and Pharmaceutical Sciences Research Day.

**Elsherbiny, M.E.**, Ayman, O.S., El-Kadi, A.O. and Brocks, D.R. 2008; The effect of CYP1A induction on the metabolism of amiodarone by hepatic and extrahepatic tissue microsomes. 15<sup>th</sup> North American Regional International society for the study of xenobiotics Meeting.  
<https://issx.confex.com/issx/15na/webprogram/Paper11369.html>

**Elsherbiny, M.E.**, Ayman O.S., El-Kadi, A.O. and Brocks, D.R. 2007; Ketoconazole is a generalized CYP inhibitor of amiodarone metabolism by human and rat recombinant microsomes. Faculty of Pharmacy and Pharmaceutical Sciences Research Day.

**Elsherbiny, M.E.**, El-Kadi, A.O. and Brocks, D.R. 2007; Studies into the metabolism of amiodarone by CYP1A1 and CYP3A isoenzymes. CSPS 10<sup>th</sup> Annual Symposium on Pharmaceutical Sciences and Cardiac Sciences Research Day.

**Elsherbiny, M.E.**, El-Kadi, A.O. and Brocks, D.R. 2006; The Comparative Role of Cytochrome P450 3A and 1A1 isoforms on the Metabolism of Amiodarone in Rat and Human. Faculty of Pharmacy and Pharmaceutical Sciences Research Day.

## **Invited lectures and talks**

-“Dose adjustment in renal failure” and “Dose adjustment in liver disease”: I was invited to give lectures on these topics as a part of the **pharmacovigilance diploma** offered by **Faculty of Pharmacy, Cairo University** to postgraduate students. Lectures were given in June-July/2018.

-“Diabetes and Peptic Ulcer” on April-12<sup>th</sup>-2017 at Faculty of Pharmacy, Ahrum Canadian University in March-2014. The seminar was a part of an EPSF organized event.

-“Pharmacy Licensure in Canada” at Faculty of Pharmacy, Ahrum Canadian University in March-2014. The seminar was a part of a career awareness day for Undergraduate Pharmacy Students (5<sup>th</sup> level).

-“The effect of polycyclic aromatic hydrocarbons on the metabolism of amiodarone by hepatic and extra-hepatic microsomes”. 30-November-2009, Faculty of Pharmacy and Pharmaceutical Sciences Research Day Committee at the University of Alberta, Canada.

-“Assessment of inter-individual variability in pharmacokinetics using virtual human populations and integrating general knowledge of physical chemistry, biology, anatomy, physiology and genetics.” July-17-2009, **Dr. Fakhreddin Jamali’s** research group, **Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta**, AB, Canada.

## **Awards**

### **Egyptian National Awards**

-***Third place best poster presentation award*** at the 57<sup>th</sup> Egyptian Society of Pharmacology & Experimental Therapeutics Conference held at British University in Egypt on 28<sup>th</sup> April 2018.

- ***Third place best poster presentation award*** at the 14<sup>th</sup> national conference on biochemistry and molecular biology held by October University for Modern Sciences and Arts in March-2017.

### **Canadian National Awards**

- **Antoine Noujaim Award** for best poster presentation at the Canadian Society of Pharmaceutical Sciences (June, 2010).

- **Biovail Contract Research Award of Excellence** for best poster presentation in the field of Pharmacokinetics. It was awarded at the Canadian Society of Pharmaceutical Sciences (June, 2009).

### **Canadian Provincial Awards**

- Alberta Cancer Foundation Postdoctoral Fellowship (2011).

### **University of Alberta-specific Awards**

- Graduate Student Teaching Award (2009).

- Dr. Leonard Wiebe Graduate Award in Pharmaceutical Sciences (2009).

- Antoine Noujaim Graduate Scholarship in Pharmaceutical Sciences (2008).

- Mike-Wolwyk graduate scholarship (2006).

- Pfizer inc. research scholarship (2006).

- Shoppers Drug Mart graduate scholarship (2006).

- Myer Horowitz graduate scholarship (2005).

- Novartis pharmaceutical graduate scholarship (2005).

- Shoppers Drug Mart graduate scholarship (2005).

### **Membership in Associations**

- Egyptian Syndicate of Pharmacists.

- Canadian Society for Pharmaceutical Sciences (CSPS).

### **Peer reviewer for the following journals**

- International Journal of Molecular Sciences

- Journal of Pharmacy and Pharmaceutical Sciences

- Toxicological Sciences

- Journal of Pharmacy and Pharmacology

- Cancers

- Nutrients