

Curriculum Vitae

NAME: Maha Mohamed Saber Khalil Ayad

DATE OF BIRTH: 16/2/1972

e-mail: msaber@sharjah.ac.ae, mahasaber1972@gmail.com

Phone: Office: +971 06 5057219 Cell: +971 0561405022

+201001079606

CURRENT POSITION:

Associate Professor of Pharmacology, Acting Chair, Basic Science Department, College of Medicine, University of Sharjah, UAE.

PROFESSIONAL EXPERIENCE:

June 2015-Current

Associate Professor of Pharmacology, College of Medicine, University of Sharjah, UAE

2009-2015

Assistant Professor of Pharmacology, College of Medicine, University of Sharjah, UAE

2013-Current

Associate Professor of Pharmacology, Faculty of Medicine, Cairo University.

2004- 2010

Tutor in the Egyptian Medical Syndicate preparatory courses for MRCP(UK).

2008- 2009

Member of the Committee of Clinical Pharmacology & Pharmacy, Cairo University Hospitals.

2006- Jan, 2009

Clinical and genetic consultant of Bibliotheca alexandrina Hypertrophic Cardiomyopathy (BA-HCM) research project in Cairo (the project is under support of MagdiYacoub Research Institute in Harefield and Oxford University- UK).

2003-2004

Partime Resident, Intermediate Care of Cardiology Department, New University Teaching Hospital, Cairo University.

1997-1999

Full-time Resident, Critical Care Department, Kasr Al-Aini University Hospitals, Faculty of Medicine, Cairo University.

1996-1997

House Officer, Kasr Al-Aini University Hospitals, Faculty of Medicine, Cairo University.

EDUCATION:

1- M.B., B.Ch., Faculty of Medicine, Cairo University, 1995, "Excellent with Honours".

2- M.Sc. Degree in Clinical Pharmacology, Faculty of Medicine, Cairo University, 2001.

Thesis title: "Effect of Angiotensin II type-1 receptor blockers on cardiac remodelling following acute myocardial infarction- role of AT1- receptor gene polymorphism".

2- Membership of the Royal College of Physicians, **MRCP (UK)**, 2003.

3- MD Degree in Pharmacology (equivalent to PhD), 2006.

Thesis title: "Pharmacogenomics of Thrombolytic Therapy:Effect of Gene Polymorphisms on Response to Streptokinase in Patients with Acute Myocardial Infarction".

4- Fellowship of the Royal College of Physicians in Edinburgh, **FRCP (Edinburgh)**, 2013.

5- MSc Degree in 'Leadership in Health Profession Education', RCSI, Ireland, 2015.

PROFESSIONAL INVOLVEMENT:

- Supervision of 1 MSc thesis and 1 PhD thesis.
- *Member of the editorial board of* : Journal of Pharmaceutics and Pharmacology
- *Reviewer in:*
 1. Journal of Renin-Angiotensin Aldosterone System
 2. Cell Biochemistry and Biophysics
 3. Clinical Medicine and Diagnostics
 4. Journal of Mood Disorders
 5. Journal on Complementary Medicine and Drug Discovery

MEMBERSHIPS:

- Fellowship of the Royal College of Physician, Edinburgh, UK
- Member of the British Pharmacology Society
- Membership of the International Menopause Society
- Membership of the Emirati Medical Society

SELECTED PUBLICATIONS:

1. **Saber-Ayad M.**,Taher E., Latif I., Abdel-Shafy S., Mokhtar S. Genetic profile of modifiable risk factors for myocardial infarction, *Egyptian Heart Journal* 2009;61(4):435-443.
2. **Saber-Ayad M.**,Sabry S., Abdel-Latif I, Nabil H, Abo El-Azm S. and Abdel-Shafy S. Effect of Angiotensin-Converting Enzyme (ACE) I/D Gene Polymorphism on Steroid Resistance in Egyptian Children with Idiopathic Nephrotic Syndrome. *JRAAS* 2010;11(2):111-118.
3. Nassar YS, **Saber-Ayad M**,Farhan A, Moussa A. One year cardiac follow-up of young world cup football team compared to non-athletes. *Egyptian Heart Journal*, 2011;63:13-22.
4. Johnson JN, Grifoni C, Bos JM, **Saber-Ayad M**,Ommen SR, Nistri S, Cecchi F, Olivotto I, Ackerman MJ. Prevalence and clinical correlates of QT prolongation in patients with hypertrophic cardiomyopathy. *Eur Heart J*. 2011 May;32(9):1114-20.
5. Ibrahim OM, **Saber-Ayad M**. Antibiotic misuse in different hospital wards (A pilot study in an Egyptian Hospital). *AJPCR* 2012;5(2):95-7.
6. Semreen MH, EL-Awady R, Abu-Odeh R, **Saber-Ayad M**, Al-Qawasmeh R, Chouaib S, Voelter W, Al-Tel T. Tandem Multicomponent Reactions toward the design and synthesis of novel antibacterial and cytotoxic motifs. *Curr Med Chemistry* 2013;20: 1445-59.
7. KassemHSh, Azer RS, **Ayad MS**,Moharem-Elgamal S, Magdy G, Elguindy A, Cecchi F, Olivottol I, Yacoub MH. Early results of sarcomeric gene screening from the Egyptian National BA-HCM Program. *JCATR* 2013; 6(1):65-80.
8. Mostafa-Hedeab G, **Saber-Ayad M**,Latif IA, Elkashab SO, AbdElshafey S, Elshaboney TH, Mostafa MI, Zaki MM.Functional G1199A ABCB1 polymorphism may have an effect on

- cyclosporine blood concentration in renal transplanted patients. *J clin Pharmacol* 2013; 53(8):827-33.
9. **Saber-Ayad M**, Nassar YS, Latif IA. Angiotensin-converting enzyme I/D gene polymorphism affects early cardiac response to professional training in young footballers. *JRAAS* 2014;15(3): 236-42.
 10. Omar HA, Tolba MF, **Saber-Ayad M**. Potential Targets of Energy Restriction Mimetic Agents in Cancer Cells. *Future Oncology* 2014; 10(16):2547-2550.
 11. El-Awady R, Semreen MH, **Saber-Ayad M**, Cyprian F, Menon V, Al-Tel T. Modulation of DNA damage response and induction of apoptosis mediates synergism between doxorubicin and a new imidazopyridine derivative in breast and lung cancer cells. *DNA Repair* 2016;37: 1-11.
 12. Kassem, Heba Sh.; Algendy, Sherif A.; Azer, Remon S.; Magdy, Gehan; Moharem-Elgamal, Sarah; **Ayad, Maha S.**; Elguindy, Ahmed; Abdelghany, Besra S.; Yacoub, Magdi H. Angiotensin-converting enzyme insertion/deletion polymorphism in an Egyptian cohort of hypertrophic cardiomyopathy. *Middle East Journal of Medical Genetics* 2016;5(2):65-70.
 13. Wael M Abdel-Rahman, Noura A Al-khayyal, Vidhya A Nair, S R Aravind, and Maha Saber-Ayad. Role of AXL in invasion and drug resistance of colon and breast cancer cells and its association with p53 alterations. *WJG* (accepted Feb 2017-in press).

RESEARCH INTEREST:

1. Pharmacogenetics:

- Studying gene polymorphisms of renin-angiotensin-aldosterone system, Plasminogen-activator-inhibitor (PAI), platelet receptors, fibrinogen in relation to the occurrence of and drug response in various diseases (e.g coronary artery disease, nephritic syndrome).
- Detecting (novel) mutations in hypertrophic cardiomyopathy patients, as a preliminary step to evaluate their response to different drugs.

2. Drug Utilization:

- Evaluation of drug use in various clinical settings
- Evaluation of methods used to enhance patient education and awareness of therapies

3. Evaluation of new anti-neoplastic compounds:

- Screening of cyto-toxicity induced by poly-substituted imidazo-pyridine and imidazo-pyrazine compounds.
- Evaluating mechanisms of action of promising compounds

Grants:

Principal Investigator in:

- Mechanism of action of new anticancer molecules, Seed grant, College of Pharmacy, University of Sharjah (2012- 2014), 20,000 AED.
- Prevalence of statin-induced myopathy SLCO 1B1 gene polymorphism in Emirati population collaborative research grant, University of Sharjah 2015-2017), 110,000 AED.
- Grant for students' projects (Boehringer Ingelheim grants):
 - Effect of Galanin expression on caspase 8 –mediated apoptosis and sensitivity to chemotherapy in colorectal cancer (2016-2017), 11,000AED.
 - Prevalence of FTO obesity gene polymorphisms in UAE population, 10,000AED, (2017-2018).

Co-investigator in:

1. Bisphenol A and colorectal carcinogenesis, University of Sharjah, (PI: Dr Wael Hassan), interdisciplinary grant 135000 AED. Sep 2015 – 2017.
2. Molecular Study of Colon and Breast Cancer Development in Obesity, University of Sharjah. (PI: Dr Wael Hassan), fund of AED 200,000, Nov., 2016 -2019.
3. Targeting protein arginine methyltransferase 5 using AMI-1 in lung adenocarcinoma cells, Boehringer Ingelheim, (PI: Prof Qutayba Hamid), 11.000AED, (2017-2018).

TECHNICAL EXPERIENCE:

- **DNA extraction**
- **Quantitative Real-time PCR**
- **Genotyping**
- **DNT/RNA Sequencing**
- **Genotyping database management**
- **Data analysis**
- **Tissue culture & Viability Assessment**
- **Colonogenic Assay**
- **Western Blotting**

ABSTRACTS:

1. **Maha Saber-Ayad**, Heba Sh. Kassem, HendFarza, IacopoOlivotto, Franco Cecchi, MagdiYacoub and the BA HCM Consortium' Clinical and Molecular Characterisation of HCM in Egypt: Early results of the BA-HCM Study (oral presentation in Panhellenic Society Meeting on "Heart Failure", Athens, 2008).

2. **Maha Saber-Ayad**, Heba Sh. Kassem, HendFarza, IacopoOlivotto, Franco Cecchi, MagdiYacoub and the BA HCM Consortium⁶: Clinical and Molecular Characterisation of HCM in Egypt: Early results of the BA-HCM National Study (poster presentation in Meeting on “Advance in Cardiomyopathies”, Florence, 2008).
3. H. Badran, **M. Saber**, A. El-Sherif, A. Farhan, Y. Nassar, S. Mokhtar, M. Yacoub . Characterization of Myocardial Deformation in Hypertrophic Cardiomyopathy using Speckle Tracking: Comparison with Physiological Hypertrophy (ESC congress, Barcelona, 2009).
4. Y S. Nassar, A. Farhan, A. Moussa, **M. Saber-Ayad**, A. Elsherif. One Year Cardiac Follow up of young World Cup Football team compared to nonathletes (*poster in Euro-prevent*, prague, 2010).
5. **M. Saber-Ayad**, YS. Nassar,, I. Latif. ACE I/D polymorphism influences pulmonary artery systolic pressure response to exercise in young football players (ESC Congress, Stockholm, 2010).
6. M. Saber-Ayad, YS. Nassar, A. Farhan, A. Moussa, A. El-Sherif. Echocardiographic study of early adaptive left ventricular changes in young football players (poster accepted in Euro-echo, Copenhagen, 2010).
7. **M. Saber-Ayad**, H. Nabil , S. Samar , I. A. Latif , S. Abou El Azm , S. A. Shafy. Steroid Resistance in Egyptian Patients with Nephrotic Syndrome is not affected by ACE Insertion/Deletion genotype (poster discussion, Lyon, 2010).
8. F. Jirjees, **M. Saber-Ayad**, Y. Hassan. Are the Guidelines Usually Followed in Patients with Unstable Angina? (poster discussion, Lyon, 2010).
9. N. Bazan ,**M. Saber-Ayad**, M. Youssry , M. Osman, A. R. El Nagggar, M. Zaki. Outcome of Clinical Pharmacology and Pharmacy Project In Cairo University Hospitals: The Magnitude of Drug related Problems in the Critical Care Units (poster discussion, Lyon, 2010).
10. **M. Saber-Ayad**, O. M. Ibrahim. Role of community pharmacists in health care promotion-patients’ perspectives (poster, Dublin, 2011)
11. **M. Saber-Ayad**, E. El-Demiry, D. Ahmed, E. El-sayed, M. Osman, M. Zaki and clinical pharmacology and pharmacy committee, Cairo University Hospitals. Clinical Pharmacology and Pharmacy Project in Cairo University Hospitals: One-year Follow up. (Dublin, 2011).
12. **Saber-Ayad M.**, Afify N., Zabin R. Perspectives of Overweight towards weight-reducing methods – Approaches and Community Awareness in the United Arab Emirates. (Barcelona, 2012).
13. **Saber-Ayad M.**, Taher I, A. Latif I, Mokhtar S. PAI-1 gene polymorphism and modifiable risk factors of coronary artery disease. (Barcelona, 2012).
14. Attia FM, **Saber-Ayad M**, AbouSheishaa AA, Al Qaydi GA. Achieving Medication Safety via Appropriate Pharmaceutical Care in UAE. (Barcelona, 2012).
15. AbouSheishaa AA, **Saber-Ayad M**, Attia FM, Al Qaydi GA. Pharmacists Role in Prevention of Adverse Drug Events in UAE. (Barcelona, 2012).
16. Mostafa-Hedeab G, **Saber-Ayad M**, Latif IA, Elkashab SO, AbdElshafey S, Elshaboney TH, Zaki MM. Effect of Multi-drug Resistance-1 Gene Polymorphisms on Cyclosporine Pharmacokinetics in Egyptian Renal Transplanted Patients. (Granada, 2012).

17. Saber-Ayad M. Brain and Glucose Homeostasis. 18th Pan-Arab Conference on Diabetes. (Cairo, 2014- Oral Presentation).
18. El-Awady R, **Saber M**, Semreen M, Al-Tel T, El-Ansassy S, Abdul Sahib R, Hassan S, Rahimi M, El-Wahiby D, Deire Y . Molecular Mechanisms of a novel Imidazopyridine cyclin-dependent kinase inhibitor alone and in combination with Doxorubicin. 6th Annual Asian Oncology Summit and 10th Annual Conference of the Organisation for Oncology and Translational Research. (KL, 2014).
19. **Saber-Ayad M**, Nassar YS. Short-term inhaled colistin adjunctive therapy improves survival of patients with ventilator-associated pneumonia. 44th ESCP symposium on Clinical Pharmacy (Lisbon, 2015- poster presentation).
20. Wael M Abdel-Rahman, Noura Ali Al-khayyal, Vidhya A Nair, **Maha Saber Ayad**. Role of AXL in invasion and drug resistance of breast and colon cancer cells. EACR, 2016 (Poster Presentation), Manchester, UK.
21. Wael M Abdel-Rahman, Farheen Alam, Fatima M Mezhal, **Maha M Saber**, Ahmed ElSerafy, Vidhya Nair, Hussain ELHassasna, Jerome Thiery, Zaeem Noman, Salem Chouaib. Study of Moesin regulation and effects in breast cancer cells. EACR, 2016 (Poster Presentation), Manchester, UK.
22. **Maha Saber-Ayad**, Shaista Manzoor, Ahmed El-Serafy, Ibrahim Eltayeb, Salah Abusnana, Nabil Sulaiman. STATIN-INDUCED MYOPATHY SLCO 1B1 GENE POLYMORPHISMS IN EMIRATI POPULATION. European Association of Clinical Pharmacology and Therapeutics (EACPT), (accepted poster for June 2017), Prague, Czech Republic.