

Curriculum Vitae

Mahmoud El-Sayed Mahmoud El-Daly, PhD

Personal Data

Date of Birth: May 3, 1976
Nationality: Egyptian
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Education and Training

PhD Degree (2015), Medical Science Program (Pharmacology), Faculty of Medicine, University of Calgary, Calgary AB, Canada.

Thesis title:

"Proteinase Activated Receptor Signalling, Vascular Function, and Hyperglycaemia"

Master's Degree in Pharmaceutical sciences (M.Sc.) – Pharmacology & Toxicology (2007), Faculty of Pharmacy, Minia University, Egypt.

Thesis title:

"Evaluation of possible protective effect of carvedilol against cardiovascular complications induced by diabetes in rats"

Bachelor of Pharmaceutical sciences (B.Sc., 1999), with an overall grade of Distinction Honor (89.11%). Faculty of Pharmacy, Alexandria University, Egypt

EXPERIENCE

WORK EXPERIENCE:

2018-now	Part-Time Lecturer, Department of Pharmacology and Toxicology, Faculty of Pharmacy, Deraya University, El-Minia Egypt.
2016-2018	Part-Time Lecturer, Department of Pharmacology and Toxicology, Faculty of Pharmacy, Nahda University in Beni Suef (NUB), Beni Suef, Egypt.
2015-Now	Full-Time Lecturer, Department of Pharmacology & Toxicology, Faculty of Pharmacy, Minia University, El-Minia, Egypt.
2007-2015	Full-time Graduate Student and Post-Doctoral Trainee, Department of Physiology & Pharmacology, Faculty of Medicine, University of Calgary.
2005-2007	Department of Pharmacology & Toxicology representative member in the executive team of the Ministry of Higher Education program "Faculty Education Quality assurance & Accreditation program", Department of Pharmacology & Toxicology, Faculty of Pharmacy, Minia University, Egypt.
2003-2007	Research and Teaching Assistant, Department of Pharmacology & Toxicology, Faculty of Pharmacy, Minia University, Egypt
2000-2003	Medical Representative, ProAct Pharmaceutical Marketing Co, Alexandria, Egypt
1999-2000	Military Service (Pharmacist), Ministry of Defense, Egypt.
1999-1999	Community Pharmacist, Manshia Pharmacy, Alexandria, Egypt.

RESEARCH EXPERIENCE:

A. Isolated Organ (In-vitro) Preparations

Bioassay experiments involving the use of isolated organs as: various vascular preparations including mouse and rat aortae, pulmonary and mesenteric arteries used for assessment of endothelial and smooth muscle vascular function. In addition, I trained undergraduate students to use isolated rabbit intestine, guinea pig ileum, frog rectus abdominis and frog isolated heart preparations in practical pharmacology lessons.

B. Cell Culture and Organ culture

I have worked with primary and immortalized cell lines as well as organ-cultured isolated blood vessels to study cellular signalling relevant to the role of proteinase-activated receptors in cancer biology and vascular function. I can maintain a cell culture (passaging, freezing, and transfection protocols). I have good experience with fluorescence and light microscopy as well as Calcium signaling assays.

C. In vivo experience

- Experimental gastric and duodenal ulceration in rats with some surgical skills in rats, especially pyloric ligation.
- Induction of experimental type1 and type 2 diabetes mellitus in rats by alloxan, streptozotocin and obesity (diet-induced).

- Induction of experimental liver injury in rats (fibrosis/ cirrhosis) chemically using CCl₄ and Galactosamine and diet-induced steatohepatitis.
- induction and study of ischemia-reperfusion injury.
- Cecal ligation and puncture model of sepsis.

D. Pharmacological screening of analgesics, antioxidants, anti-epileptics, cardiotonics, anti-histaminics, cardiovascular drugs and CNS depressant drugs.

E. Instrumental Techniques

Good experience in spectrofluorometry and spectrophotometry assays, ELISA, SDS-PAGE & Western blotting, and PCR techniques. In addition, I have had good experience with conventional as well as fluorescence microscopy.

TEACHING EXPERIENCE:

- A. Teaching postgraduate-level (MSc. Students) pharmacology courses (General, Biochemical, Advanced & Molecular Pharmacology).
- B. Teaching Pharmacology, Toxicology, Biostatistics, and Bioassay (third- and fourth-year Pharmacy students).
- C. Teaching the subjects of Drug Information, Pathophysiology, First Aid and Emergency Procedures, Medical Terminology, Clinical Pharmacy, Biostatistics, Toxicology & Forensic Chemistry as well as Clinical Pharmacology (Clinical Pharmacy students), 2015-now.
- D. More than 10-year experience in teaching experimental pharmacology to undergraduate as well as graduate students (Minia University, Egypt and University of Calgary, Canada).
- E. Teaching clinical pharmacology, experimental toxicology, biological assays, biostatistics and screening of drugs for the third- and fourth-year Pharmacy students (2003-2007).
- F. Designed and updated, in collaboration with other teaching assistants in the department, the experimental toxicology course for the fourth-year students, the experimental pharmacology course for the third-year students (2003-2005).

COMPUTER EXPERIENCE:

- Excellent experience with computer software: Microsoft Windows®, macOS®, Linux, Microsoft Office (Word®, Excel®, PowerPoint®, Access®), Endnote®, Reference Manager®, Graphpad Prism®, Adobe Reader® etc...
- Adequate computer hardware maintenance experience.

Language: Excellent command of English (Toefl score 263, CBT; equivalent to 106-108 iBT score)
Arabic is my mother tongue.

HONORS & AWARDS

Class standing: within top 5% of students throughout my undergraduate and graduate studies

Jan 2016	Minia University Prize for International Publication.
Apr 2014	Best Poster Award in the Libin Research Day, Libin cardiovascular Research Institute, University of Calgary, Calgary AB, Canada.
Sept 2009	William H. Davies Medical Research Scholarship, University of Calgary, Calgary AB, Canada.
Jul 2008	Medical Science Program Specific Award (Travel Award for National or International Scientific Meeting, University of Calgary, Calgary AB, Canada.
Oct 1999	Ceremony for distinguished academic achievement under the patronage of the head of the Syndicate of pharmacists.
Aug 1999	Ceremony for distinguished academic achievement under the patronage of the Faculty of pharmacy dean, University of Alexandria.
1995-1999	Scholarship from the faculty of pharmacy, Alexandria University, for outstanding academic performance for four consecutive years.

Publications

A. Peer-Reviewed Papers:

1. Rehab H. Abd El-Aleam, Riham F. George, Kevin J. Lee, Adam B. Keeton, Gary A. Piazza, Amr A. Kamel, **Mahmoud E. El-Daly**, Ghaneya S. Hassan, and Hamdy M. Abdel-Rahman (2018): Design and synthesis of 1,2,4-triazolo[1,5-a]pyrimidine derivatives as PDE4B inhibitors endowed with bronchodilator activity. *Bioorganic Chemistry* (Under review).
2. Vivek Krishna Pulakazhi Venu, **Mahmoud El-Daly**, Mahmoud Saifeddine, Simon A. Hirota, Hong Ding, Chris R. Triggle and Morley D. Hollenberg (2018): Minimizing hyperglycaemia -induced vascular endothelial dysfunction by inhibiting endothelial sodium-glucose-cotransporter-2 and attenuating oxidative stress: Implications for treating diabetes. *Canadian journal of Diabetes* (Accepted 16 Jan 2019).
3. **Mahmoud El-Daly**, Vivek Krishna Pulakazhi Venu, Mahmoud Saifeddine, Koichiro Mihara, Sean Kang, Paul W.M. Fedak, Laurie A. Alston, Simon A. Hirota, Hong Ding, Chris R. Triggle, Morley D. Hollenberg. (2018). Hyperglycaemic impairment of PAR2-mediated vasodilation: Prevention by inhibition of aortic endothelial sodium-glucose-co-Transporter-2 and minimizing oxidative stress, *Vascular Pharmacology*, <https://doi.org/10.1016/j.vph.2018.06.006>.
4. Pulakazhi Venu, V. K., Saifeddine, M., Mihara, K., **El-Daly, M.**, Belke, D., Dean, J. L. E., O'Brien, E. R., Hirota, S. A., and Hollenberg, M. D. (2018). Heat shock protein-27 and sex-selective regulation of muscarinic and proteinase-activated receptor 2-mediated vasodilatation: differential sensitivity to endothelial NOS inhibition. *British Journal of Pharmacology*, 175: 2063–2076. doi: 10.1111/bph.14200.
5. Madlen B. Labib, Souty M.Z. Sharkawi, **Mahmoud El-Daly** (2018). Design, synthesis of novel isoindoline hybrids as COX-2 inhibitors: anti-inflammatory, analgesic activities and docking study, *Bioorganic Chemistry*, <https://doi.org/10.1016/j.bioorg.2018.05.018>.

6. Saifeddine M, **El-Daly M**, Mihara K, Bunnett NW, McIntyre P, Altier C, et al. (2015). GPCR mediated EGFR transactivation regulates TRPV4 action in the vasculature. *British journal of pharmacology* 172: 2493–2506.
7. **El-Daly M**, Saifeddine M, Mihara K, Ramachandran R, Triggle CR, & Hollenberg MD (2014). Proteinase-Activated Receptors 1 & 2 and the Regulation of Porcine Coronary Artery Contractility: Role for Distinct Tyrosine Kinase Pathways. *British Journal of Pharmacology* 171: 2413–2425.
8. Khalifa MMA, Mangoura SA, El-Moselhy MA, & **El-Daly ME** (2009). The effectiveness of beta adrenoceptor antagonists on progression of insulin resistance and type 2 diabetes in high fat diet-fed rats. *Saudi Pharmaceutical Journal* 17: 19-28.
9. El-Moselhy MA, Khalifa MMA, Mangoura SA and **El-Daly ME** (2008): “Carvedilol Protects Against High Fat Diet Induced Insulin Resistance and Type 2 Diabetes Mellitus in Rats” *J. Egypt. Soc. Pharmacol. Exp. Ther.*, 29(1): 19-38.

B. Poster Presentations:

1. El-Daly M, Saifeddine M, Yu Z, Triggle CR and Hollenberg MD (2008): “Porcine Coronary G-Protein-Coupled Receptor (GPCR) Signaling: Distinct Contractile Tyrosine Kinase Pathways for Proteinase-Activated Receptors 1 & 2 and Other GPCRs”. The Mazankowski Alberta Heart Institute Inaugural Congress (June 5-6th) and the Alberta Cardiovascular Retreat (June 7th), Edmonton, AB, Canada.
2. Li Y, El-Daly M, Hollenberg MD and Triggle CR (2008): “Vascular Adipose Tissue-Derived Relaxing Factor (ADRF) Released By Proteinase-Activated-Receptor-2 (PAR2) From Obese Female Tally-Ho Mouse Aorta”. The Mazankowski Alberta Heart Institute Inaugural Congress (June 5-6th) and the Alberta Cardiovascular Retreat (June 7th), Edmonton, AB, Canada.

C. Abstracts:

1. Venu VKP, Saifeddine M, El-Daly M, Belke D, Hollenberg MD, & O'Brien ER (2016). Absence of Hspb1 Increases Endothelium-dependent Protease Activated Receptor 2-mediated Vasorelaxation in a Female but Not Male Arteries. *Experimental Biology* 2016. *Circulation* 134 (Suppl 1), A14643-A14643.
2. Gibson S, Mihara K, El-Daly M, Saifeddine M, Hollenberg MD, & Hyndman ME (2016). Proteinases, Proteinase-Activated Receptors (PARs) and Transient Receptor Potential (TRP) Ion Channels: Driving Tumorigenesis in the Bladder Cancer Microenvironment. *Experimental Biology* 2016. *The FASEB Journal* 30: 714.712-714.712.
3. Ramachandran R, Saifeddine M, Hollenberg M, Altier C, El-Daly M, & Mihara K (2014). Abstract Isra152: Angiotensin and Proteinase Activated GPCRS regulates TRPV4 action in the vasculature via Egfr transactivation. *Journal of vascular research* 51: 142.
4. El-Daly M, Saifeddine M, Triggle CR and Hollenberg MD (2013): Proteinase-activated receptors, PAR1 & PAR2, regulate porcine coronary contractility via tyrosine kinase-MAPKinase signaling involving a cyclooxygenase (COX)-1 product. Accepted for the *Experimental Biology* 2013, April20-24, Boston, USA.
5. El-Daly M, Saifeddine M, Yu Z, Triggle CR and Hollenberg MD (2008): “Porcine Coronary G-Protein-Coupled Receptor (GPCR) Signaling: Distinct Contractile Tyrosine Kinase Pathways for

Proteinase-Activated Receptors 1 & 2 and Other GPCRs". The Mazankowski Alberta Heart Institute Inaugural Congress, June 5-6th, Edmonton, AB, Canada.

6. Li Y, El-Daly M, Hollenberg MD and Triggle CR (2008): "Vascular Adipose Tissue-Derived Relaxing Factor (ADRF) Released By Proteinase-Activated-Receptor-2 (PAR2) From Obese Female Tally-Ho Mouse Aorta" The Mazankowski Alberta Heart Institute Inaugural Congress, June 5-6th, Edmonton, AB, Canada.

D. Book Chapters:

1. Ramachandran R, El-Daly M, Saifeddine M and Hollenberg MD (2009): "Thrombin: to PAR or not to PAR, and the regulation of inflammation" In: ME Maragoudakis and NE Tsopanoglou (Eds.), "Thrombin: Physiology and Disease" Springer Publishers. (ISBN: 978-0-387-09636-0)

Conferences & Workshops

Jan 2019	The First African Health Summit. Organized by Tanta University, Egypt. Exhibition and Convention Center, Cairo, Egypt (Jan 29-Feb 1).
July 2018	The 2 nd Scientific Conference of Oncology Centers of Ministry of Health and Population, Tanta University, Tanta, Egypt.
Jan 2011	Banff Inflammation Workshop, Banff AB, Canada.
Jan 2009	Banff Inflammation Workshop, Banff AB, Canada.
Jun 2008	Alberta Cardiovascular Retreat, Edmonton, AB, Canada (June 7, 2008).
Jun 2008	Mazankowski Alberta Heart Institute Inaugural Congress, Edmonton, AB, Canada (June 5-6, 2008).
Apr 2008	U of A / U of C Pharmacology Retreat, Kananaskis Field Station, Kananaskis, AB, Canada (April 14-15, 2008).
Jan 2008	Kananaskis Inflammation Workshop, Kananaskis, AB, Canada (January 19, 2008).
Mar 2006	"The use of MicroLabs® electronic simulation system in teaching practical Pharmacology", A workshop presented by Dr. Henk van Wilgenburg, Professor of Pharmacology at Amsterdam University, The Netherlands, presented at Misr University for Science & Technology (MUST), Egypt.
Dec 2005	Problem Solving & Decision-Making Workshop, Faculty Development & Leadership Center, Minia University, Minia, Egypt
Nov 2005	Effective Communication Skills, Faculty Development & Leadership Center, Minia University, Minia, Egypt.

Oct 2005	Effective Presentation Skills, Faculty Development & Leadership Center, Minia University, Minia, Egypt
Sept 2005	Novel approaches for effective teaching Workshop, Faculty Development & Leadership Center, Minia University, Minia, Egypt.
Jun 2005	Attendance at the Global Summer Leadership Conference "Principles of Leadership: From Effectiveness to Greatness". Presented by LumaCore, USA and Scope, Middle East.
Jun 2005	Developing Thinking & Research Skills, Faculty Development & Leadership Center, Minia University, Minia, Egypt

Affiliations

- Member of the American Physiological Society(2012-now)
- Member of the Egyptian Syndicate of Pharmacists (1999-now)

EXTRACURRICULAR & COMMUNITY SERVICES

- Supervisor, Egyptian Pharmaceutical Students' Federation in Minia (EPSF-Minia); 2016-now.
- Treasurer, Egyptian Student Association in Calgary (ESA-Calgary) during the election period of 2008-2009.
- Member of The Alexandrian Pharmacy Students Scientific Association (ASPSA); 1995-1999.
- Member and Co-founder of the Alex Herbs Society of the Faculty of Pharmacy, University of Alexandria; 1996-1999.

HOBBIES

Sports: Soccer, Chess.

Other: Reading.