

Curriculum Vitae

Updated: February 21, 2016

Name: OSAMA F. HARRAZ

Date/Place of Birth: February 9, 1985 / GA, USA

Marital Status: Married



1. Contact information

Affiliation/Mailing Address

Given Building, C331
89 Beaumont Avenue
Burlington, VT 05401

E-mail Address: oharraz@gmail.com

2. Education

- **PhD** (*Cardiovascular & Respiratory Sciences*)
Faculty of Medicine, University of Calgary, CANADA (April 2015)
- **MSc** (*Pharmacology*)
Faculty of Pharmacy, Alexandria University, EGYPT (November 2009)
- **BSc** (*Pharmaceutical Sciences*)
Faculty of Pharmacy, Alexandria University, EGYPT (July 2006)

3. Research Experience

- **June 2015 – present:** Full-time Postdoctoral Associate, Dept. of Pharmacology, University of Vermont. Mentor: Mark T. Nelson, PhD.
- **January 2010 – April 2015:** Full-time PhD student, Dept. of Physiology & Pharmacology, University of Calgary. Thesis Title: "T-type Ca^{2+} channels in the cerebral circulation". Advisor: Donald G. Welsh, PhD.
- **July 2007 – November 2009:** Full-time MSc student, Dept. of Pharmacology & Toxicology, Alexandria University. Thesis Title: "Investigation of the hemodynamic interaction between ethanol and centrally acting antihypertensive medications in rats with acute renal failure". Advisor: Mahmoud El-Mas, PhD.

4. Professional Societies

- American Physiological Society (APS)
- Society of General Physiologists (SGP)
- The Microcirculatory Society (MCS)
- American Society of Pharmacology and Experimental Therapeutics (ASPET)
- Graduate Leadership Circle, University of Calgary (GLC)
- General Egyptian Syndicate of Pharmacy (GESP)

5. Publications

PAPERS

1. **Harraz OF**, Brett SE, Zechariah A, Romero M, Puglisi JL, Wilson SM, Welsh DG (2015) Genetic ablation of Ca_v3.2 channels enhances the arterial myogenic response by modulating the RyR-BK_{Ca} axis. *Arterioscler Thromb Vasc Biol.* 35:1843-1851.
2. **Harraz OF**, Visser F, Brett SE, Goldman D, Zechariah A, Hashad AM, Menon BK, Watson T, Starreveld Y, Welsh DG (2015) Ca_v1.2/Ca_v3.x channels mediate divergent vasomotor responses in human cerebral arteries. *J Gen Physiol.* 145:405-418. *Editorial (Adler, 2015), Commentary (Collier et al., 2015), News release, featured on University of Calgary website.*
3. **Harraz OF***, Abd El-Rahman RR*, Bigdely-Shamloo K, Wilson SM, Brett SE, Romero M, Gonzales AL, Earley S, Vigmond EJ, Nygren A, Menon BK, Mufti RE, Watson T, Starreveld Y, Furstenhaupt T, Muellerleile PR, Kurjiaka DT, Kyle BD, Braun AP, Welsh DG (2014) Ca_v3.2 channels and the induction of negative feedback in cerebral arteries. *Circ Res.* 115: 650-661. (* Co-first authors), "Recommended in the Faculty of 1000".
4. **Harraz OF**, Brett SE, Welsh DG (2014) Nitric oxide suppresses vascular voltage-gated T-type Ca²⁺ channels through cGMP/PKG signaling. *Am J Physiol Heart Circ Physiol.* 306: H279-285. "Featured Article".
5. **Harraz OF**, Altier C (2014) STIM1-mediated bidirectional regulation of Ca²⁺ entry through Voltage-Gated Calcium Channels (VGCC) and Calcium-Release Activated Channels (CRAC). *Front Cell Neurosci.* 8: 43.
6. **Harraz OF**, Welsh DG (2013) Protein kinase A regulation of T-type Ca²⁺ channels in rat cerebral arterial smooth muscle. *J Cell Sci.* 126: 2944-2954.
7. **Harraz OF**, Welsh DG (2013) T-type Ca²⁺ channels in cerebral arteries: approaches, hypotheses, and speculation. *Microcirculation.* 20: 299-306.
8. El-Rahman RR, **Harraz OF**, Brett SE, Anfinogenova Y, Mufti RE, Goldman D, Welsh DG (2013) Identification of L- and T-type Ca²⁺ channels in rat cerebral arteries: role in myogenic tone development. *Am J Physiol Heart Circ Physiol.* 304: H58-71.
9. **Harraz OF**, El-Gowell HM, Mohy El-Din MM, Ghazal AR, El-Mas MM (2012) Adenosinergic modulation of the imidazoline I₁-receptor-dependent hypotensive effect of ethanol in acute renal failure. *Food Chem Toxicol.* 50: 2622-2628.
10. Anfinogenova Y, Brett SE, Walsh MP, **Harraz OF**, Welsh DG (2011) Do TRPC-like currents and G protein-coupled receptors interact to facilitate myogenic tone development? *Am J Physiol Heart Circ Physiol.* 301: H1378-1388.
11. El-Mas MM, El-Gowell HM, Ghazal AR, **Harraz OF**, Mohy El-Din MM (2009) Facilitation of central imidazoline I₁-site/extracellular signal-regulated kinase/p38 mitogen-activated protein kinase signalling mediates the hypotensive effect of ethanol in rats with acute renal failure. *Br J Pharmacol.* 158: 1629-1640.

ABSTRACTS

1. **Harraz OF**, Longden TA, Bonev AD, Sonkusare SK, Freeman K, Nelson MT (2015) Regulation of Endothelial TRPV4 Channel Activity in the Cerebral Circulation. The 69th Annual Meeting and Symposium of the Society of General Physiologists, Woods Hole, MA.
2. **Harraz OF**, Abd El-Rahman RR, Bigdely-Shamloo K, Wilson SM, Brett SE, Romero M, Gonzales AL, Earley S, Vigmond EJ, Nygren A, Menon BK, Mufti RE, Watson T, Starreveld Y, Furstenhaupt T, Muellerleile PR, Kurjiaka DT, Kyle BD, Braun AP, Welsh DG (2014) Ca_v3.2 channels and the induction of negative feedback in cerebral arteries. *ISRA 2014.*

3. **Harraz OF**, Brett SE, Zechariah A, Hashad AM, Romero M, Wilson SM, Welsh DG (2014) Genetic ablation of Ca_v3.2 enhances arterial myogenic tone through BK_{Ca} channels. *ISRA 2014*.
4. **Harraz OF**, Visser F, Brett SE, Goldman D, Zechariah A, Hashad AM, Watson T, Menon BK, Starreveld Y, Welsh DG (2014) Human Ca_v1.2/Ca_v3.x channels mediate paradoxical vasomotor responses in the human cerebral circulation. *ISRA 2014*.
5. **Harraz OF**, Brett SE, Wilson SM, Welsh DG (2014) Ca_v3.2 knockout mice display enhanced myogenic tone due to reduced BK_{Ca}-mediated feedback. *FASEB J*. 28:1077.3.
6. **Harraz OF**, Visser F, Brett SE, Zechariah A, Watson T, Menon BK, Starreveld Y, Welsh DG (2014) Human Ca_v1.2/Ca_v3.x channels mediate paradoxical vasomotor responses in the human cerebral circulation. *FASEB J*. 28:677.11.
7. Hashad AM, Mazumda N, **Harraz OF**, Welsh DG (2014) The role of Ca²⁺ influx pathways in voltage-dependent STOC production. *FASEB J*. 28:853.10.
8. **Harraz OF**, Welsh DG (2013) Protein kinase G inhibits T-type Ca²⁺ channels in rat cerebral arteries. *FASEB J*. 27:921.3.
9. **Harraz OF**, Starreveld Y, Watson T, Menon BK, Welsh DG (2013) L- and T-type Ca²⁺ channels in human cerebral circulation. *FASEB J*. 27:1203.16.
10. El-Rahman RR, **Harraz OF**, Bigdely-Shamloo K, Mufti RE, Gonzales AL, Earley S, Vigmond E, Wilson S, Welsh DG (2013) Ca_v3.2 channels and the induction of negative feedback in cerebral arterial smooth muscle. *FASEB J*. 27:925.5.
11. **Harraz OF**, Welsh DG (2013) β-adrenergic stimulation suppresses Ca_v3.2 channels through cAMP/PKA signaling in cerebral arterial smooth muscle. *Libin Conference*.
12. El-Rahman RR, **Harraz OF**, Bigdely-Shamloo K, Mufti RE, Gonzales AL, Earley S, Vigmond E, Welsh DG (2012) Ca_v3.2 Channels and the Induction of Negative Feedback in Cerebral Arterial Smooth Muscle. *FASEB Smooth Muscle Summer Meeting*.
13. **Harraz OF**, Welsh DG (2012) Protein kinase A-mediated inhibition of the T-type Ca²⁺ channels in the cerebral circulation. *FASEB J*. 26:870.12.
14. El-Rahman RR, Brett SE, Anfinogenova Y, **Harraz OF**, Turner R, Welsh DG (2011) L- and T- Type calcium channels in cerebral arteries. *FASEB J*. 25:1024.18.
15. El-Mas MM, El-Gowell HM, **Harraz OF**, Ghazal AR, Mohy El-Din MM (2010) Adenosinergic modulation of the imidazoline I₁-receptor-dependent hypotensive effect of ethanol in acute renal failure. *FASEB J*. 24:961.10.

6. Invited Talks

1. Role of arterial Ca_v3.2 channel in arterial tone development. International Symposium of Resistance Arteries (ISRA 2014), Banff, AB (September, 2014)
2. Arterial T-type calcium channels and arterial function. State University of New York, Albany, NY, USA (June, 2014).
3. T-type calcium channel in rodent and human arterial smooth muscle. University of Vermont, Burlington, VT, USA (June, 2014).
4. T-type calcium channel in rodent and human arterial smooth muscle. University of Washington, Seattle, WA, USA (May, 2014).
5. Paradoxical roles for voltage-gated Ca²⁺ channels in the human cerebral vasculature. Rapid Fire Talk, Libin Cardiovascular Institute Research Conference, Calgary, AB (April, 2014).
6. Human Ca_v1.2/Ca_v3.x channels mediate paradoxical vasomotor responses in the human cerebral circulation. Cerebral Circulation Theme (CCT Meeting), Hotchkiss Brain Institute, Banff, AB (December, 2013).

7. β -adrenergic stimulation suppresses $Ca_v3.2$ channels through cAMP/PKA signaling in cerebral arterial smooth muscle. Rapid Fire talk, Libin Cardiovascular Institute Research Conference, Calgary, AB (March, 2013).
8. Voltage-gated calcium channels in the human cerebral circulation. Cerebral Circulation Theme, Hotchkiss Brain Institute, Banff, AB (November, 2012).

7. Awards and Honors

Postdoctoral

1. The Paul Cranefield Award in Physiology, the Society of General Physiologists (2016)
2. Cardiovascular Research Institute of Vermont (CVRI) Travel Award (2015)
3. The Durwood J. Smith Memorial Fund Award for Best Poster Presentation at the 17th Annual Research Retreat of the Department of Pharmacology, University of Vermont (2015)

PhD

4. Vanier Canada Graduate Scholarship: *Government of Canada, Canadian Institutes of Health Research (CIHR, 2011-2014)*
5. Alberta Innovates-Health Solutions Studentship: *Alberta Innovates (2011)*
6. Alberta Innovates-Health Solutions Incentive Award: *Alberta Innovates (2011-2014)*
7. Kaley Travel Award: *The Microcirculatory Society, Experimental Biology Meeting, San Diego, CA (2014)*
8. ISRA Best Poster Award: International Symposium on Resistance Arteries, Banff, AB (2014)
9. Graduate Travel Award: *The Faculty of Graduate Studies, University of Calgary (2014)*
10. Libin Best Poster Awards: *Libin Cardiovascular Research Institute, University of Calgary (2013, 2015)*
11. MDCV 1st Authored Publication Award: *Medical Cardiovascular Program, University of Calgary (2013)*
12. Achievers in Medical Sciences (AIMS) Excellence Award: *University of Calgary (2011-2014)*
13. Achievers in Medical Sciences (AIMS) Recruitment Scholarship: *University of Calgary (2010)*
14. Medical Cardiovascular Program/Faculty of Graduate Studies Scholarship: *MDCV/FGS (2010-2011)*

MSc

1. Excellence in Publication Award: *Alexandria University, Egypt (2009, 2012)*
2. Excellence Award for Best Academic Records: *Alexandria University, Egypt (2009)*
3. Best Teaching Assistant Prize: *Faculty of Pharmacy, Alexandria University, Egypt (2009)*

BSc (Pharm.)

1. Top Pharmacy Student Award (Nation-wide): *Egyptian Syndicate of Pharmacy (2007)*
2. Top Pharmacy Student Award (Provincial): *Alexandria Syndicate of Pharmacy (2007)*
3. AMRIA Top Ranked Student Award: *Amria Pharmaceutical Industries (2007)*
4. Borg Award in Pharmaceutical Sciences: *Borg Pharmaceuticals (2007)*
5. CID Award in Medicinal Chemistry: *CID Pharmaceutical Industries (2007)*
6. Sawsan Masry Academic Prize in Pharmacognosy: *Alexandria University (2007)*
7. Pharmacy Friends' Prize: *Pharmacy Friends Association (2007)*
8. Pharopharma Distinguished Performance Award: *Pharopharma Pharmaceuticals (2007)*
9. Award for Outstanding Academic Records: *Egyptian Syndicate of Pharmacy (2006)*
10. Julphar Travel Award: *JULPHAR Pharmaceuticals, United Arab Emirates (2005)*
11. Certificate of Excellence: *5th Scientific Pharmaceutical Conference, Egypt (2005)*

12. International Pharmaceutical Federation (FIP) Travel Award: *World Health Organization (WHO), Cairo, Egypt (2005)*
13. Novartis Training Travel Award: *Novartis Pharmaceuticals, Cairo, Egypt (2005)*
14. Certificate of Honor: *Alexandria Pharmacological Association (2005)*
15. Travel Award: *Ministry of Youth and High Education, Egypt (2005)*
16. Excellence Prize: *Egyptian Pharmaceutical Students' Federation, EPSF (2004)*

8. Peer Review

- Circulation Research: *Ad Hoc* reviewer
- Journal of Pharmacology and Experimental Therapeutics: *Ad Hoc* reviewer