

CV: Maged M. Harraz, MBBCh, MSc, PhD
mharraz@jhmi.edu

The Solomon H. Snyder Department of Neuroscience
 725 North Wolfe St. (816 WBSB), Baltimore, MD 21205
 410-614-6248 (Work)

3400 Orange Grove CT
 Ellicott City, MD 21043
 410-336-2013 (Cell)

CURRENT POSITION

Johns Hopkins University School of Medicine
 Instructor

Baltimore, MD
 2016-present

EDUCATION

University of Iowa, Roy J. Carver School of Medicine
 PhD, Cell Biology/Molecular Medicine
 Dissertation: Redox Regulation of the NADPH Oxidase
 Suez Canal University, School of Medicine
 MSc, Histology/Genetics
 MBBCh, Medicine & Surgery

Iowa City, IA
 2006

Ismailia, Egypt
 1998
 1992

SELECT GRANTS and AWARDS

Fisher Center Discovery Award
 Role: PI. Johns Hopkins Fisher Center Discovery Program
Maryland Innovation Initiative Award (MII)
 Role: Co-PI. TEDCO
NARSAD Young Investigator Grant
 Role: PI. The Brain & Behavior Research Foundation
Johns Hopkins Discovery Award (2019)
 Role: Co-PI. Johns Hopkins University
Johns Hopkins Discovery Award (2018)
 Role: Co-PI. Johns Hopkins University
State Encouragement Award in Medical Sciences
 Egypt National Academy of Sciences
Postdoctoral Fellowship
 Maryland Stem Cell Research Fund (MSCRF)
Tung-Yang Wing Award for Graduate Education Superior Achievement
 Department of Anatomy & Cell Biology, University of Iowa, Iowa City, IA
Predocctoral Fellowship
 Egypt Ministry of Higher Education

2021
 2019-2020
 2017-2019
 2019-2020
 2018-2019
 2010
 2008-2010
 2002
 2000-2006

SELECT PUBLICATIONS

Original Peer Reviewed Research Articles

1. **Harraz MM**, Malla A, Semenza E, Shishikura M, Kang J, Song YJ, Hwang Y, Snowman A, Cortés P, Snyder SH. Cocaine receptor identified as BASP1. *In Review by Nature.* (invited to resubmit manuscript after addressing comments of referees), **bioRxiv** 2020.11.23. 392787; doi: <https://doi.org/10.1101/2020.11.23.392787>

2. **Harraz MM**, Guha P, Kang IG, Semenza ER, Malla AP, Song YJ, Reilly L, Treisman I, Cortés P, Coggiano MA, Veeravalli V, Rais R, Tanda G, and Snyder SH. Cocaine-induced locomotor stimulation involves autophagic degradation of the dopamine transporter. Mol Psychiatry 2021 Jan 7. doi: 10.1038/s41380-020-00978-y. Online ahead of print.
3. Kang J, Le H, Karakus S, Malla AP, **Harraz MM**, Kang JU, Burnett AL, Boctor E. Real-time, functional intra-operative localization of rat cavernous nerve network using near-infrared cyanine voltage-sensitive dye imaging. Scientific Reports. 2020 Apr 20;10(1):6618.
4. Weyemi U, Paul BD, Bhattacharya D, Malla AP, Boufraquech M, **Harraz MM**, Bonner WM, Snyder SH. Histone H2AX promotes neuronal health by controlling mitochondrial homeostasis. Proc Natl Acad Sci U S A. 2019;116(15):7471-7476.
5. Wang Y, An R, Umanah GK, Park H, Nambiar K, Eacker SM, Kim B, Bao L, **Harraz MM**, Chang C, Chen R, Wang JE, Kam TI, Jeong JS, Xie Z, Neifert S, Qian J, Andrabi SA, Blackshaw S, Zhu H, Song H, Ming GL, Dawson VL, Dawson TM. A nuclease that mediates cell death induced by DNA damage and poly (ADP-ribose) polymerase-1. Science. 2016 Oct 7;354(6308).
6. Guha P*, **Harraz MM***, Snyder SH. Cocaine elicits autophagic cytotoxicity via a nitric oxide-GAPDH signaling cascade. Proc Natl Acad Sci U S A. 2016;2;113(5):1417-22. ***Equal contribution.**
7. **Harraz MM**, Tyagi R, Cortés P, Snyder SH. Antidepressant action of ketamine via mTOR is mediated by inhibition of nitrergic Rheb degradation. Mol Psychiatry. 2016;21(3):313-9.
8. Ahmed I, Sbodio JI, **Harraz MM**, Tyagi R, Albacarys LK, Hubbi ME, Grima JC, Xu R, Kim S, Paul BD, Snyder SH. Huntington's disease: Neural dysfunction linked to inositol polyphosphate multikinase. Proc Natl Acad Sci U S A. 2015;4;112(31):9751-6.
9. **Harraz MM**, Xu JC, Guiberson N, Dawson TM, Dawson VL. MiR-223 regulates the differentiation of immature neurons. Mol Cell Ther 2014;2:18.
10. **Harraz MM**, Eacker SM, Wang X, Dawson TM, Dawson VL. MicroRNA-223 is neuroprotective by targeting glutamate receptors. Proc Natl Acad Sci U S A 2012;109(46):18962-18967.
11. Chi Z, Zhang J, Tokunaga A, **Harraz MM**, Dolinko A, Byrne ST, Blackshaw S, Gaiano N, Dawson TM, Dawson VL. Botch (NPG7) Promotes Neurogenesis by Antagonizing Notch. Dev Cell 2012;22(4):707-20.
12. **Harraz MM**, Marden JJ, Zhou W, Zhang Y, Williams A, Sharov VS, Nelson K, Luo M, Paulson H, Schöneich C, Engelhardt JF. SOD1 mutations disrupt Redox-sensitive Rac Regulation of NADPH Oxidase in a Familial ALS Model. J Clin Invest 2008;118:659-670.
13. **Harraz MM**, Park A, Abbott D, Zhou W, Zhang Y, Engelhardt JF. MKK6 phosphorylation regulates production of superoxide by enhancing Rac GTPase activity. Antioxid Redox Signal 2007;9:1803-1813.
14. Marden JJ, **Harraz MM**, Williams AJ, Nelson K, Luo M, Paulson H, Engelhardt JF. Redox Modifier Genes in Amyotrophic Lateral Sclerosis. J Clin Invest 2007;117:2913-2919.
15. Li Q, **Harraz MM**, Zhou W, Zhang LN, Ding W, Zhang Y, Eggleston T, Yeaman C, Banfi B, Engelhardt JF. Nox2 and Rac1 Regulate H₂O₂-Dependent Recruitment of TRAF6 to Endosomal Interleukin-1 Receptor Complexes. Mol Cell Biol 2006;26:140-154.
16. **Harraz M**, Jiao C, Hanlon HD, Hartley RS, Schatteman GC. CD34- blood-derived human endothelial cell progenitors. Stem Cells 2001;19:304-312.

17. Badr FM, El Habit OH, **Harraz MM**. Radioprotective effect of melatonin assessed by measuring chromosomal damage in mitotic and meiotic cells. Mutat Res 1999;444:367-372.

PATENTS

Inventor [Engelhardt J, Zhou W, **Harraz M**, Marden J]. "Method of identifying compounds useful to treat neuronal degenerative diseases." International Patent No: 2007/079141 A3, awarded 12/7/07.

Inventor [Snyder SH, **Harraz MM**, Tyagi R]. "Treatment of Depression by Targeting GAPDH." Provisional patent application No: 62/194,343 (7/20/2015).

Inventor [**Harraz MM**, Boctor EM, Graham E, Kang J, and Koehler RC]. "Apparatus and methods for photoacoustic monitoring based on ultrasound neuromodulation." Patent application No: PCT/US2019/063084 (11/25/2019)

INVITED SPEAKER

- | | |
|--|---------|
| Aysel Sabuncu Brain Research Center, Bilkent University, Ankara, Turkey. | 02/2020 |
| Talk title: "How Self-Eating Can Be Rewarding: A Tale of a Novel Cocaine Receptor." | |
| PEIYANG Forum for Young Scholars-Health Science, Tianjin University, Tianjin, China. | 04/2019 |
| Talk title: "A novel high affinity cocaine receptor inhibits dopamine reuptake via rapid degradation of the dopamine transporter." | |
| Johns Hopkins Medicine Schizophrenia Center 'Mind the Gap' Workshops | 02/2018 |
| Talk title: "Depression vs demoralization." | |
| Johns Hopkins Medicine Psychiatry Department Research Conferences | 11/2017 |
| Talk title: "Novel Target of Cocaine Mediates Stimulant Effect via Autophagy." | |
| Institute of Biology and Biotechnology, Bezmialem Vakıf University, Istanbul, Turkey. | 06/2017 |
| Talk title: "Self-Eating and Addiction: Autophagy Mediates Cocaine Stimulant Effect via Degradation of DAT." | |
| Zewail City of Science and Technology, Giza, Egypt | 06/2017 |
| Talk title: "Self-Eating and Addiction: Autophagy Mediates Cocaine Stimulant Effect via Degradation of DAT." | |
| NIH/NIDA Meeting | |
| "Emerging Targets for Stimulant Use Disorders," Bethesda, MD | 09/2014 |
| Talk title: GAPDH nitrosylation mediates cocaine actions. | |

SERVICE & OUTREACH

International

- Co-founder of the Suez Canal University School of Medicine Center of Excellence in Cellular and Molecular Medicine Research. 2009

PROFESSIONAL SOCIETIES

- 2008-present Member, Society for Neuroscience (SFN)

2016-present Member, Society of Biological Psychiatry (SOBP)

2019-present American Society for Pharmacology and Experimental Therapeutics