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# MICHAEL LAWRENCE MILLER, PH.D.

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## Education

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| <b>Icahn School of Medicine at Mount Sinai</b><br>Medical Scientist Training Program (MSTP) <ul style="list-style-type: none"><li>• Ph.D. in Neuroscience (2016), M.D. (expected, May 2018)<br/>Dissertation Title: <i>Genetic and epigenetic risk factors of opiate abuse</i></li></ul> | New York, NY<br>2010–present |
| <b>Binghamton University</b> <ul style="list-style-type: none"><li>• B.S. in Integrative Neuroscience, B.S. in Biochemistry,<br/>Dean's Certificate in evolutionary studies<br/><i>Summa cum laude</i></li></ul>   | Binghamton, NY<br>2006–10    |

## Research Experience

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| <b>Icahn School of Medicine at Mount Sinai</b> <ul style="list-style-type: none"><li>• Fishberg Department of Neuroscience, Friedman Brain Institute<br/>Graduate Student, MSTP<br/>Dissertation Advisor: Yasmin L. Hurd, Ph.D.</li></ul> | New York, NY<br>2012–present |
| <b>Brookhaven National Laboratories</b> <ul style="list-style-type: none"><li>• Department of Medicine<br/>Summer Undergraduate Researcher<br/>Supervisor: Panayotis (Peter) K. Thanos, Ph.D.</li></ul>                                   | Upton, NY<br>2008–10         |
| <b>Binghamton University</b> <ul style="list-style-type: none"><li>• Department of Biological Sciences<br/>Undergraduate Researcher<br/>Honor's Thesis Advisor: Anne B. Clark, Ph.D.</li></ul>  | Binghamton, NY<br>2007–10    |

## Grants and Fellowships

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| <b>Ruth L. Kirschstein National Research Service Award Fellow</b> <ul style="list-style-type: none"><li>• National Institute on Drug Abuse, National Institutes of Health<br/>Project title: <i>Identifying distinct striatonigral and striatopallidal disturbances</i> (F30-DA-038954)</li></ul> | 2015–present<br>\$171,370 |
| <b>Barry M. Goldwater Scholar in Mathematics, Science and Engineering</b> <ul style="list-style-type: none"><li>• The Barry M. Goldwater Foundation</li></ul>   | 2009–2010<br>\$7500       |

## Publications

- Miller ML & Hurd YL. (in press). Testing the gateway drug hypothesis. *Neuropsychopharmacology*.
- Egervari G, Jutras-Aswad D, Landry J, **Miller ML**, Anderson SA, Michaelides M, Jacobs MM, Peter C, Yiannoulos G, Liu X, & Hurd YL. (2016). A functional 3'UTR polymorphism (rs2235749) of Prodynorphin alters microRNA-365 binding in ventral striatonigral neurons to influence novelty seeking and positive reward traits. *Neuropsychopharmacology*, 10, 2512-2520. doi: 10.1038/npp.2016.53.
- Thanos PK, Michaelides M, Subrizi M, **Miller ML**, Bellezza R, Cooney RN, Leggio L, Wang G-J, Rogers AM, Volkow ND, & Hajnal A. (2015). Roux-en-Y gastric bypass alters brain activity in regions that underlie reward and taste perception. *PLoS One*, 10, e0125570. doi: 10.1371/journal.pone.0125570.
- Miller ML**, Chadwick B, Morris CV, Michaelides M, & Hurd YL. (2015). Cannabinoid-Opioid Interactions. In P. Campolongo & L. Fattore (Eds.) *Cannabinoid Modulation of Emotion Memory and Motivation* (pp 393-407) New York NY: Springer New York. doi: 10.1007/978-1-4939-2294-9\_15.

- Maze I, Chaudhury D, Dietz DM, von Schimmelmann M, Kennedy PJ, Lobo MK, Sullivan SE, **Miller ML**, Bagot RC, Sun H, Turecki G, Neve RL, Hurd YL, Shen L, Han M-H, Schaefer A, & Nestler EJ. (2014). G9a influences neuronal subtype specification in striatum. *Nature Neuroscience*, 17, 533-539. doi: 10.1038/nn.3670.
- Szutorisz H, DiNieri JA, Sweet E, Egervri G, Michaelides M, Carter JM, Ren Y, **Miller ML**, Blitzer RD, & Hurd YL. (2014). Parental THC exposure leads to compulsive heroin-seeking and altered striatal synaptic plasticity in the subsequent generation. *Neuropsychopharmacology*, 39, 1315-1323. doi: 10.1038/npp.2013.352.
- Chadwick B, **Miller ML**, & Hurd YL. (2013). Cannabis use during adolescent development: susceptibility to psychiatric illness. *Frontiers in Psychiatry*, 4, 129. doi: 10.3389/fpsyt.2013.00129.
- Hurd YL, Michaelides M, **Miller ML**, & Jutras-Aswad D. (2013). Trajectory of adolescent cannabis use on addiction vulnerability. *Neuropharmacology*, 76, 416-424. doi: j.neuropharm.2013.07.028.
- Michaelides M, **Miller ML**, Subrizi M, Kim R, Robison L, Hurd YL, Wang G-J Volkow ND, & Thanos PK. (2013). Limbic activation to novel versus familiar food cues predicts food preference and alcohol intake. *Brain Research*, 1512, 37-44. doi: 10.1016/j.brainres.2013.03.006.
- Miller ML**, Gallup AC, Vogel AR, Vicario SM, & Clark AB. (2012). Evidence for contagious behaviors in budgerigars (*Melopsittacus undulatus*): An observational study of yawning and stretching. *Behavioural Processes*, 89, 264-270. doi: 10.1016/j.beproc.2011.12.012.
- Miller ML**, Gallup AC, Vogel AR, & Clark AB. (2012). Auditory disturbances promote temporal clustering of yawning and stretching in small groups of budgerigars (*Melopsittacus undulatus*). *Journal of Comparative Psychology*, 126, 324-328. doi: 10.1037/a0026520.
- Miller ML**, Gallup AC, Vogel AR, & Clark AB. (2010). Handling-stress initially inhibits but then potentiates yawning in budgerigars (*Melopsittacus undulatus*). *Animal Behaviour*, 80, 615-619. doi: 10.1016/j.anbehav.2010.05.018.
- Gallup AC, **Miller ML**, & Clark AB. (2010). The direction and range of ambient temperature change influences yawning in budgerigars (*Melopsittacus undulatus*). *Journal of comparative Psychology*, 124, 133-138. doi: 10.1037/a0018006.
- Gallup AC, **Miller ML**, & Clark AB. (2009). Yawning and thermoregulation in budgerigars: Science as an incremental process. *Animal Behaviour*, 78, e3-e5. doi: 10.1016/j.anbehav.2009.09.017.
- Gallup AC, **Miller ML**, & Clark AB. (2009). Yawning and thermoregulation in parakeets (*Melopsittacus undulatus*). *Animal Behaviour*, 77, 109-113. doi: 10.1016/j.anbehav.2008.09.014.

## Mentorship/Teaching

- **Teaching Assistant for Principles of Neurobiology: Systems Neuroscience**  
Winter 2013, Directed by Elizabeth Cropper, Ph.D
- **Teaching Assistant for Brain & Behavior**  
Fall 2012, Directed by Carrie Ernst, M.D.
- **Undergraduate Teaching Assistant for Cellular Neurobiology**  
Fall 2008 and Fall 2009, Directed by Carol I. Miles, Ph.D.
- **Mentored summer undergraduate interns and Master's students**  
Judelca Rodriguez (Summer 2013), Nieghel Downer (Summer 2014),  
Yonaida Valentine (Summer 2015) and Tanni Rahman (2015-2016),  
Directed by Yasmin L. Hurd, Ph.D.

## Awards

- Presidents Award for Undergraduate Student Excellence (2010), \$1000
- State University of New York Chancellors Award (2010)
- John L. Fuller Memorial Award (2010), \$100
- University Undergraduate Research Award (2009), \$250
- University Undergraduate Research Award (2008), \$169

- Edward Thorsen Memorial Scholarship (2008), \$400
- Freshman Chemistry Award (Fall 2006, Spring 2007), \$50 each
- Graduate Students GRC Poster Award (2013)
- Brain Awareness Week Travel Award (2009), \$750 + conference registration
- Sigma Xi Undergraduate Research Poster Award (2008, 2009), \$100 each
- Department of Energys Summer Undergraduate Lab Internship (Summer 2009), \$3200 stipend
- Plainview Diner Scholarship (2006), \$500