

# LUZ HELENA OSPINA

NYC Department of Health and Mental Hygiene  
World Trade Center Health Registry  
30-30 47<sup>th</sup> Avenue, LIC, NY 11101

[lospina@health.nyc.gov](mailto:lospina@health.nyc.gov)  
[linkedin.com/in/lhospina](https://www.linkedin.com/in/lhospina)

## EDUCATION

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<b>PhD</b>	The Graduate Center, CUNY – Experimental Psychology	02/2015
<b>MPhil</b>	The Graduate Center, CUNY (En Route to PhD) – Psychology	06/2014
<b>MA</b>	Brooklyn College, CUNY (En Route to PhD) – Psychology	08/2012
<b>BA</b>	New York University – Psychology	06/2004

## HONORS AND AWARDS

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INSIGHT Data Science Fellowship	01/2017
GC Conference Presentation Support Grant – \$300	09/2014
Society for Psychophysiological Research Travel Grant – \$500	09/2012
Presidential MAGNET Fellowship – \$90,000	09/2009 – 05/2014

## PROFESSIONAL RESEARCH EXPERIENCE

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**NYC Department of Health and Mental Hygiene, New York, NY** 12/2022 – Present  
**Manager for Epidemiological Support – City Research Scientist**

- Supervise and manage the World Trade Center Health Registry sub-unit, including IRB applications/renewals and setting research priorities.
- Assist in scientific management such as project proposal review, data analysis, and manuscript preparation.
- Participate in the design and implementation of registry surveys.
- Provide consultation and staff mentoring on statistical and epidemiological research methods.

**Icahn School of Medicine at Mount Sinai, New York, NY** 12/2022 – Present  
**Research Scientist**

- Supervise and consult with research personnel on timely completion of various protocol objectives following GCP/IRB guidelines.
- Statistically analyze data and develop manuscripts for publication and presentation.
- Aid in the development and submission of applications for national and international federal/private grants.

**Icahn School of Medicine at Mount Sinai, New York, NY** 09/2017 – 11/2022  
**Project Manager**

- Directed various multi-site clinical trials assessing the effects of aerobic exercise and sleep interventions on cognition and clinical symptoms in schizophrenia utilizing mobile and digital health markers (e.g., cardiovascular, actigraphy, experience sampling, etc.).
- Established and maintained various databases, as well as data quality control and data analysis using statistical procedures such as multivariate, regression, confirmatory factor and path analyses resulting in five publications and multiple manuscripts in preparation.
- Managed ~25 team members on timely completion of protocol objectives following GCP/IRB guidelines.
- Developed and submitted funding applications for U.S. federal and private grants.

**Icahn School of Medicine at Mount Sinai, New York, NY** 08/2015 – 08/2017  
**Postdoctoral Fellow**

- Conducted research on the heterogeneity of neurocognition in bipolar disorder and schizophrenia.

- Analyzed data using statistical procedures such as multivariate analyses, hierarchical clustering, PCA, moderators and regression models using SPSS and R, resulting in eight authored publications.
- Administered various diagnostic, clinical and cognitive assessments to participants with psychiatric disorders.

**Icahn School of Medicine at Mount Sinai**, New York, NY

03/2008 – 07/2009

**Research Technician**

- Conducted developmental milestone, motor and psychiatric behavior testing in transgenic knockout mice.
- Managed and analyzed 200 autism cases from Central Valley, Costa Rica (along with 200 control cases).
- Translated case forms and communications between Sinai and Costa Rican teams from Spanish to English.

**Weill Cornell Medical College**, New York, NY

04/2002 – 01/2003

**Research Assistant**

- Assisted in research targeting medication adherence and cardiovascular risk reduction in minority populations.
- Recruited participants, administered clinical and cognitive assessments, and maintained databases.
- Developed and submitted IRB and regulatory applications for the protocol.

**TEACHING/LEADERSHIP EXPERIENCE**

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**Research Experience for Undergraduates (REU) in Neuroscience**

01/2013 – 05/2015

**Neuroscience Journal Club Moderator** (*NSF Award # 1156870*)

Taught 12 advanced undergraduate students to analyze and critically evaluate scientific papers in psychology and neuroscience.

**Brooklyn College**, Brooklyn, NY

09/2010 – 05/2015

**Adjunct Lecturer**, *Undergraduate level*

Introduction to Psychology, Experimental Psychology (Lab), Statistical Methods (Lab)

**New York University**, New York, NY

09/2008 – 05/2009

**Adjunct Lecturer**, *Graduate level*

Physiological Basis of Behavior (Lab)

**FUNDING**

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Doctoral Student Council Research Grant (DSRG)

02/2011-01/2012

The Graduate Center, CUNY – \$1,700

Assessing potential moderation of personality on the relationship between mood and cognition.

**PUBLICATIONS**

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**Journal Publications**

Kimhy, D., **Ospina, L. H.**, Beck-Felts, K., Lister, A., Omene, C., Bodenhausen, G., & Mittal, V. (2023). Psychiatric and Affective Predictors of Negative Racial Attitudes. *Psychiatry Research*, 115376.

**Ospina, L. H.**, Beck-Felts, K., Ifrah, C., Lister, A., Messer, S., Russo, S. J., ... & Kimhy, D. (2022). Inflammation and emotion regulation: Findings from the MIDUS II study. *Brain, Behavior, & Immunity-Health*, 26, 100536.

**Ospina, L. H.**, Beck-Felts, K., Ifrah, C., Shagalow, S., Lister, A., Russo, S. J., ... & Kimhy, D. (2022). Relationships among inflammation, social cognition, and social functioning in schizophrenia. *Schizophrenia research*, 248, 366-367.

- Kimhy, D., **Ospina, L.**, Beck-Felts, K., Fakhoury, A., Mullins, A. E., & Varga, A. W. (2022). The Impact of Sleep on Neurocognition and Functioning in Schizophrenia—Is It Time to Wake-Up?. *Journal of psychiatry and brain science*, 7: e220001.
- Damme, K. S., Sloan, R. P., Bartels, M. N., Ozsan, A., **Ospina, L. H.**, Kimhy, D., & Mittal, V. A. (2021). Psychosis risk individuals show poor fitness and discrepancies with objective and subjective measures. *Scientific reports*, 11(1), 1-10.
- Kimhy, D., Tay, C., Vakhrusheva, J., Beck-Felts, K., **Ospina, L. H.**, Ifrah, C., ... & Bartels, M. N. (2021). Enhancement of aerobic fitness improves social functioning in individuals with schizophrenia. *European Archives of Psychiatry and Clinical Neuroscience*, 271(2), 367-376.
- Beck-Felts, K., Goodman, M., **Ospina, L. H.**, Wall, M., McEvoy, J., Jarskog, L. F., ... & Kimhy, D. (2020). Suicide Reduction in Schizophrenia via Exercise (SUNRISE): study protocol for a multi-site, single-blind, randomized clinical trial of aerobic exercise for suicide risk reduction in individuals with schizophrenia. *Trials*, 21(1), 1-13.
- Kogan, S., **Ospina, L. H.**, Mittal, V. A., & Kimhy, D. (2020). The impact of inflammation on neurocognition and risk for psychosis: a critical review. *European archives of psychiatry and clinical neuroscience*, 270, 793-802.
- Damme, K. S., Sloan, R. P., Bartels, M. N., Ozsan, A., **Ospina, L. H.**, Kimhy, D., & Mittal, V. A. (2020). Lab-Based and Self-Reported Indices of Fitness Show Lowered Fitness and Insight into Fitness in Individuals at Clinical High Risk for Psychosis. *bioRxiv*, 2020-04.
- Ifrah, C., **Ospina, L. H.**, Shagalow, S., Beck-Felts, K., & Kimhy, D. (2020). Cognitive insight and autonomic regulation during daily functioning in individuals with schizophrenia. *Schizophrenia research*, 218, 300-301.
- Kimhy, D., Lister, A., Liu, Y., Vakhrusheva, J., Delespaul, P., Malaspina, D., **Ospina, L. H.**, Mittal, V. A., Gross, J. J., & Wang, Y. (2020). The impact of emotion awareness and regulation on psychotic symptoms during daily functioning. *npj Schizophrenia*, 6(1), 1-7.
- Ospina, L. H.**, Shanahan, M., Perez-Rodriguez, M. M., Chan, C. C., Clari, R., & Burdick, K. E. (2019). Alexithymia predicts poorer social and everyday functioning in schizophrenia and bipolar disorder. *Psychiatry research*, 273, 218-226.
- Chan, C. C., Shanahan, M., **Ospina, L. H.**, Larsen, E. M., & Burdick, K. E. (2019). Premorbid adjustment trajectories in schizophrenia and bipolar disorder: A transdiagnostic cluster analysis. *Psychiatry research*, 272, 655-662.
- Larsen, E. M., **Ospina, L. H.**, Cuesta-Diaz, A., Vian-Lains, A., Nitzburg, G. C., Mulaimovic, S., ... & Burdick, K. E. (2019). Effects of childhood trauma on adult moral decision-making: Clinical correlates and insights from bipolar disorder. *Journal of affective disorders*, 244, 180-186.
- Ospina, L. H.**, Wall, M., Jarskog, L. F., Ballon, J. S., McEvoy, J., Bartels, M. N., Buchsbaum, R., Sloan, R. P., Stroup, T. S., & Kimhy, D. (2019). Improving Cognition via Exercise (ICE): Study protocol for a multi-site, parallel-group, single-blind, randomized clinical trial examining the efficacy of aerobic exercise to improve neurocognition, daily functioning, and biomarkers of cognitive change in individuals with schizophrenia. *J Psychiatry Brain Sci*, 4:e 190020.
- Kogan, S., **Ospina, L. H.**, & Kimhy, D. (2018). Inflammation in individuals with schizophrenia—Implications for neurocognition and daily function. *Brain, behavior, and immunity*, 74, 296-299.

- Ospina, L. H.**, Nitzburg, G. C., Shanahan, M., Perez-Rodriguez, M. M., Larsen, E., Latifoglu, A., & Burdick, K. E. (2018). Social cognition moderates the relationship between neurocognition and community functioning in bipolar disorder. *Journal of Affective Disorders*, 235, 7-14.
- Van Rheenen, T. E., Lewandowski, K. E., Tan, E. J., **Ospina, L. H.**, Ongur, D., Neill, E., ... & Burdick, K. E. (2017). Characterizing cognitive heterogeneity on the schizophrenia–bipolar disorder spectrum. *Psychological medicine*, 47(10), 1848-1864.
- Nitzburg, G. C., Cuesta-Diaz, A., **Ospina, L. H.**, Russo, M., Shanahan, M., Perez-Rodriguez, M. M., Larsen, E., Mulaimovic, S. & Burdick, K. E. (2017). Organizational Learning Strategies and Verbal Memory Deficits in Bipolar Disorder. *Journal of the International Neuropsychological Society*, 23(4), 358-366.
- Ospina, L. H.**, Russo, M., Nitzburg, G. C., Cuesta-Diaz, A., Shanahan, M., Perez-Rodriguez, M. M., McGrath, M., Levine, H., Mulaimovic, S. and Burdick, K. E. (2016). The effects of cigarette smoking behavior and psychosis history on general and social cognition in bipolar disorder. *Bipolar Disorders*, 18: 528–538.
- Nitzburg, G. C., Russo, M., Cuesta-Diaz, A., **Ospina, L. H.**, Shanahan, M., Perez-Rodriguez, M. M., McGrath, M., & Burdick, K. E. (2016). Coping strategies and real-world functioning in bipolar disorder. *Journal of Affective Disorders*, 198, 185-188.
- Lauriat, T. L., Shiue, L., Haroutunian, V., Verbitsky, M., Ares, M., **Ospina, L.**, & McInnes, L. A. (2008). Developmental expression profile of quaking, a candidate gene for schizophrenia, and its target genes in human prefrontal cortex and hippocampus shows regional specificity. *Journal of Neuroscience Research*, 86(4), 785-796.

### **Book Chapters**

- Ospina, L. H.**, Ballon, J. S. & Kimhy, D. (2019). “Role of Aerobic Exercise in the Treatment of Early Psychosis.” In Hardy, K. V., Ballon, J. S., Noordsy, D. L. & Adelsheim, S. (Eds.), *Intervening Early in Psychosis – a Team Approach*. (pp. 265). Washington DC: American Psychiatric Publishing.
- Burdick, K. E., **Ospina, L. H.**, Haggarty, S. J., & Perlis, R. H. (2017). “The Neurobiology and Treatment of Bipolar Disorder.” In Charney, D. S. & Nestler, E. J. (Eds.), *Charney & Nestler's Neurobiology of Mental Illness*. (pp. 255-266). Oxford University Press.
- Kozbelt, A., Kaufman, S. B., Walder, D. J., **Ospina, L. H.**, & Kim, J. (2014). “Evolutionary perspectives on the creativity-psychosis association.” In J.C. Kaufman (Ed.), *Creativity and Mental Illness*. (pp. 102-132). New York: Cambridge University Press.
- Walder, D. J., **Ospina, L. H.**, Daly, M. P., Statucka, M., & Raparia, E. (2012). "Early Neurodevelopment and Psychosis Risk: Role of neurohormones and biological sex in modulating genetic, prenatal and sensory processing factors in brain development." In X. Hadjicharalambous (Ed.), *Psychosis: Causes, Diagnosis and Treatment*. (pp. 44-78). New York: Nova Science.

### **EDITORIAL DUTIES**

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Referee/Reviewer: *Australian and New Zealand Journal of Psychiatry*, *Cochrane Schizophrenia*, *Cognitive Neuropsychiatry*, *Journal of Affective Disorders*, *The Journal of Clinical Psychiatry*, *Journal of Experimental Psychopathology*, *Journal of the International Neuropsychological Society*, *Journal of Neuroscience Research*, *Journal of Psychiatric Research*, *The Lancet Psychiatry*, *Neuropsychobiology*, *Neuropsychopharmacology*, *Neuroscience and Biobehavioral Reviews*, *Psychiatry Research: Neuroimaging*, *Revista de Psiquiatria y Salud Mental*, *SN Comprehensive Clinical Medicine*, *The World Journal of Biological Psychiatry*

## POSTERS AND PRESENTATIONS

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- Norbury, A., Liu, S. H., Ramjas, E., Smith, E., Shanahan, M., Larsen, E., **Ospina, L. H.**, Alia-Klein, N., Chan, C., Goldstein, R. & Burdick, K. E. (2020). "Emotion Processing, Cognition, and Social Functioning in Comorbid Psychosis Spectrum and Cocaine Use Disorders." *Biological Psychiatry*, 87(9), S169-S170.
- Norbury, A., Liu, S., Shanahan, M., Ramjas, E., Rutter, S., Larsen, E., Smith, E., Grasso, J., Chan, C., Cipriani, N., **Ospina, L. H.**, Alia-Klein, N., Goldstein, R., Burdick, K. E., & Perez-Rodriguez, M. M. "Emotion Processing and Cognition in Comorbid Psychosis Spectrum and Cocaine Use Disorders." *58<sup>th</sup> Annual Meeting of The American College of Neuropsychopharmacology*, Orlando, December 10 2019.
- Martinez, C. B., Larsen, E., Clari, R. J., Ross, L., Lepow, L., **Ospina, L. H.**, Shanahan, M., Ramjas, E., Stern, E., Burdick, K. E., & Perez-Rodriguez, M. M. "Emotion Processing Abnormalities in Bipolar Disorder: An fMRI Study Using an Emotional Go/Nogo Task." *73<sup>rd</sup> Annual Scientific Meeting of the Society for Biological Psychiatry*, New York, May 10 2018.
- Perez-Rodriguez, M. M., **Ospina, L. H.**, Fisher, A., Cuesta-Diaz, A., Nitzburg, G. C., Russo, M., Shanahan, M., McNamara, M., Hazlett, E., Koenigsburg, H., New, A. S., & Burdick, K. E. "Impact of Psychotic Symptom Profiles on Neurocognitive and Functional Outcomes in Bipolar Disorder." *72<sup>nd</sup> Annual Scientific Meeting of the Society for Biological Psychiatry*, San Diego, May 18 2017.
- Chan, C. C., Shanahan, M., **Ospina, L. H.**, Larsen, E., & Burdick, K. E. "Premorbid social and academic adjustment trajectories in schizophrenia and bipolar disorder: A transdiagnostic cluster analysis." *72<sup>nd</sup> Annual Scientific Meeting of the Society for Biological Psychiatry*, San Diego, May 18 2017.
- Larsen, E., **Ospina, L. H.**, Cuesta-Diaz, A., Mulaimovic, S., Latifoglu, A., Clari, R. & Burdick, K. E. "Moral Decision Making in Bipolar Disorder: Effects of Sex and Childhood Trauma." *International Society for Bipolar Disorders*, Washington D.C., May 4 2017.
- Perez-Rodriguez, M. M., **Ospina, L. H.**, Fisher, A., Cuesta-Diaz, A., Nitzburg, G. C., Russo, M., Shanahan, M., McNamara, M., Hazlett, E., Koenigsburg, H., New, A. S., & Burdick, K. E. "Shared Architecture of Dimensional Psychotic Symptoms Across Psychosis Spectrum Disorders: Impact on Functional Outcome and Neurocognition." *International Congress on Schizophrenia Research*, San Diego, Mar 24 2017.
- Ospina, L. H.**, Russo, M., Nitzburg, G. C., Cuesta-Diaz, A., Shanahan, M., Perez-Rodriguez, M. M., Mcgrath, M., Levine, H., & Burdick, K. E. "The Effects of Cigarette Smoking Behavior and Psychosis History on General and Social Cognition in Bipolar Disorder." *8<sup>th</sup> Annual Neuroscience Retreat*, New York, May 20 2016.
- Ospina, L. H.**, & Walder, D. J. "The Potential Moderating Influence of Schizotypy on the Relationship between a Positive Mood Induction and Creativity." *Society for Research in Psychopathology*, Evanston, Sept 18 2014.
- Walder, D. J., Coplan, J. D., Tang, C. Y., Wang, V., Walker, E. F., Kaufman, J., Yaffe, B., Ehrlich, Y., & **Ospina, L. H.** "Functional Connectivity Biomarkers of Depression Risk: Resting State Activity in Relation to Mood and Stress Among Healthy Youth." *Fourth Biennial Conference on Resting State/Brain Connectivity*, Boston, Sept 12 2014.
- Rabin, L. A., Walder, D. J., **Ospina, L. H.**, Flynn, J. K., Chi, S. Y., & Adams, T. R. "Improving Undergraduate Student's Knowledge of Neuroscience Principles and Research Methods Through Structured Didactics

That Complement Mentored Research Training.” *International Behavioral Neuroscience Society*, Las Vegas, June 14, 2014.

Rabin, L. A., Walder, D. J., Chi, S. Y., Flynn, J. K., & **Ospina, L. H.** “Intensive Mentored Research Experiences for Undergraduates (REU) in Cognitive, Behavioral, and Affective Neuroscience at an Urban Public College.” *New England Conference for Teachers of Psychology 2013 Annual Meeting*, Bridgeport, CT, October 18 2013.

**Ospina, L. H.**, Krasavina, E., Chu, K., Mangus, A., & Walder, D. J. “Physiological and Subjective Responses to Positive Mood Induction: Influences on Cognitive Functioning and Sex Effects.” *Association for Psychological Science*, Washington, D.C., May 24 2013.

Walder, D. J., & **Ospina, L. H.** “Schizotypal Traits and Psychophysiological Response to a Positive Mood Induction Paradigm in a Non-Clinical Sample.” *Eastern Psychological Association*, New York, March 2 2013.

**Ospina, L. H.**, Krasavina, E., Chu, K., Mangus, A., & Walder, D. J. “The Relationships of Physiological and Subjective Responses to Positive Mood Induction with Aspects of Cognitive Functioning.” *Society for Psychophysiological Research*, New Orleans, September 19 2012.

Daly, M., **Ospina, L. H.**, & Walder, D. J. “The Relationships Among Schizotypal Traits, Dermatoglyphics, and Neurocognition Among Healthy Young Adults.” *Society for Research in Psychopathology*, Seattle, October 7 2010.

Bozdagi, O., Sakurai, T., Cai, G., **Ospina, L. H.**, Takahashi, N., Pilorge, M., Glessner, J., Hakonarson, H., Pepa, L., Soorya, L., Gonzalez, P. J., Manghi, E. R., McInnes, L. A., & Buxbaum, J. D. “Genetic and Functional Analyses Support a Role for CYFIP1 in Autism Spectrum Conditions.” *International Meeting for Autism Research*, Philadelphia, May 20 2010.

Cai, G., **Ospina, L. H.**, Jimenez, P., Bozdagi, O., Reichert, J.G., McInnes, L. A., Sakurai, T., & Buxbaum, J. D. “Microdeletions and Microduplications at 15q11.2 in Autism Spectrum Disorder in a Costa Rican Cohort.” *International Meeting for Autism Research*, Chicago, May 8 2009.

## **PROFESSIONAL AFFILIATIONS**

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American Public Health Association  
Association for Psychological Science  
New York Academy of Sciences

Society for Affective Science  
Society for Psychophysiological Research  
Society for Research in Psychopathology

## **LANGUAGES**

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**English:** Native Language

**Spanish:** Superior Listener, Advanced Speaker, Intermediate Reading and Writing

## **SKILLS**

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**Programming & Analytics:** SPSS, R, Python, Excel, SAS

**Databases:** SQL, REDCap, Microsoft Access, Epic

**Laboratory:** Electrodermal (GSR), cardiovascular (HR), electromyography (EMG), PCR, electrophoresis gels, Western blots, behavioral and neurodevelopmental testing in mouse models

**Clinical Assessments:** SCID, K-SADS, SIPS, PANSS, BDI, BAI, C-SSRS

**Neuropsychological Assessments:** MATRICS Consensus Cognitive Battery