

January 10, 2022

# Millie Rincón-Cortés, PhD

Assistant Professor  
Department of Neuroscience  
School of Behavioral Brain Sciences  
University of Texas at Dallas  
Richardson, TX  
[millie.rincon-cortes@utdallas.edu](mailto:millie.rincon-cortes@utdallas.edu)

## EDUCATION

- 2015                    **Sackler Institute for Graduate Biomedical Sciences, NYU Langone Medical Center**, New York, NY  
Ph.D.\*, Neuroscience and Physiology  
*\*2015 Sackler Dissertation Prize Awardee*
- 2009                    **University of Puerto Rico**, Mayaguez, PR  
B.S., Biology, *magna cum laude*

## ACADEMIC POSITIONS/RESEARCH EXPERIENCE

- 12/2021-              Assistant Professor, Neuroscience  
University of Texas at Dallas, Richardson, TX
- 6/2020-11/2021      Research Assistant Professor, Neuroscience  
**University of Pittsburgh**, Pittsburgh, PA
- 3/2015- 5/2020      Postdoctoral Research Associate, Neuroscience  
**University of Pittsburgh**, Pittsburgh, PA  
**Mentor: Anthony A. Grace, Ph.D.**
- 9/2009- 1/2015      Graduate Research Assistant, Neuroscience  
**NYU Langone Medical Center and Nathan Kline Institute for Psychiatric Research**, New York, NY  
**Mentor: Regina M. Sullivan, Ph.D.**

## FELLOWSHIPS/FUNDING

- 6/2020-6/2021      Ford Foundation Postdoctoral Fellowship (PI: Rincón-Cortés)

- 7/2019-7/2021 National Institutes of Mental Health (NIMH), R01-MH-57440-S1, Diversity Supplement for Parent R01 Grant (PI: Grace, Role: Trainee)
- 9/2016- 5/2018 NIMH F32-MH-110128, Individual Postdoctoral Research Fellowship (PI: Rincón-Cortés)
- 6/2015- 8/2016 NIMH, T32-MH-016804, Training for Transformative Discovery in Psychiatry (PI: Sweet, Role: Trainee)
- 6/2011- 6/2014 National Science Foundation (NSF) Graduate Research Fellowship (GRF) (PI: Rincón-Cortés)

## **HONORS AND AWARDS**

- 2021 Elected as Associate Member in the American College of Neuropsychopharmacology (ACNP)
- 2020 Early Career Achievement Award, International Behavioral Neuroscience Society (IBNS)
- 2020 Rafaelsen Young Investigator Award, CINP- International College of Neuropsychopharmacology
- 2020 Ford Foundation Postdoctoral Fellowship
- 2020 Travel Award Dopamine 2020, Dopamine Society
- 2019 Trainee Professional Development Award (TPDA), Society for Neuroscience (SfN)
- 2019 Travel Award, ACNP Underrepresented Minority (URM) Extended Funding
- 2019 Travel Award, IBNS
- 2019 Early Career Investigator Travel Award, Society of Biological Psychiatry (SOBP)
- 2018 Travel Award, ACNP URM Extended Funding
- 2018 Travel Award, Neurobiology of Stress Workshop, Pan American Neuroendocrine Society (PANS)
- 2017 ACNP Travel Award
- 2016 NIMH National Research Service Award (NRSA) F32 Individual Postdoctoral Fellowship
- 2016 Travel Award, Society for Social Neuroscience (S4SN)
- 2015 Dissertation Award, International Society for Developmental Psychobiology (ISDP)
- 2015 Sackler Dissertation Prize, NYU School of Medicine
- 2014 SfN Graduate Student Travel Award
- 2013 ISDP Travel Award
- 2012 National Institute for Drug Abuse (NIDA) Early Career Investigator Travel Award, NIDA Mini-Convention
- 2012 American Psychological Association (APA) Dissertation Research Award
- 2011 NSF Graduate Research Fellowship
- 2010 ISDP Travel Award

### *Specialized Training Fellowships*

- 2019 European College of Neuropsychopharmacology (ECNP) Data Network Training  
Workshop for Young Scientists: “How to Make Preclinical Data Robust”, Athens, Greece
- 2010 Sackler Summer Institute: Biology of Developmental Disabilities, Ithaca, NY

### PEER-REVIEWED PUBLICATIONS (20, h-index: 13)

\* denotes equal contribution

1. **Rincón-Cortés, M.** and Grace, A.A. (2022). Postpartum scarcity-adversity disrupts maternal behavior and induces a hypodopaminergic state in the rat dam and adult female offspring. *Neuropsychopharmacology*. Jan 47(2): 488-96. PMID: 34703012
2. Opendak, M., Rainekei, C., Perry, R.E., **Rincón-Cortés, M.**, Song, S.C., Zanca, R.S., Wood, E., Packard, K., Hu, S., Woo, J., Martinez, K., Yaragudri, V.K., Brown, R.W., Deehan, G.A., Froemke, R.C., Serrano, P.A., Wilson, D.A. and Sullivan, R.M. (2021). Bidirectional control of infant rat social behavior via dopaminergic innervation of the basolateral amygdala. *Neuron*. E-pub online ahead of print. PMID: 34706218
3. **Rincón-Cortés, M.** and Grace, A.A. (2021). Early Pup Removal Leads to Social Dysfunction and Dopamine Deficit in Late Postpartum Rats: Prevention by Social Support. *Front. Glob. Womens Health* 2:694808. PMID: 34414389
4. **Rincón-Cortés, M.** and Grace, A.A. (2020). Adaptations in reward-related behaviors and mesolimbic dopamine function during motherhood and the postpartum period. *Frontiers in Neuroendocrinology* Epub April 16, 2020. PMID: 32305528
5. **Rincón-Cortés, M.** and Grace, A.A. (2020). Postpartum changes in affect-related behavior and VTA dopamine neuron activity in rats. *Progress in Neuropsychopharmacology and Biological Psychiatry* 97:109768. PMID: 31655159
6. **Rincón-Cortés, M.** and Grace, A.A. (2020). Antidepressant effects of ketamine on depression-related phenotypes and dopamine dysfunction in rodent models of stress. *Behavioral Brain Research* Nov. 15: 112367. PMID: 31739001
7. Perry, R.E., Braren, S.H., **Rincón-Cortés, M.**, Brandes-Aitken, A.N., Chopra, D., Sullivan, R.M. and Blair, C. (2019). Enhancing executive functions through social interactions: Causal evidence using a cross-species model. *Frontiers in Psychology* 10:2472. PMID: 31803087.
8. Perry, R.E., **Rincón-Cortés, M.**, Braren, S.H., Brandes-Aitken, A.N., Opendak, M., Pollonini, G., Chopra, D., Cybele-Raver, C., Alberini, C.M., Blair, C., and Sullivan, R.M. (2019). Corticosterone administration targeting a hyporeactive HPA-axis rescues a socially avoidant phenotype in scarcity adversity reared rats. *Developmental Cognitive Neuroscience* 40:100716. PMID: 31704654.
9. Klinger, K.K., Gomes F.V., **Rincón-Cortés, M.**, Grace, A.A. (2019). Female rats are resistant to the long-lasting neurobehavioral changes induced by adolescent stress exposure. *European Neuropsychopharmacology*; 20 (10):1127-1137. PMID: 31371105.

10. **Rincón-Cortés, M.**, Herman, J.P., Lupien, S., Maguire, J.L., Shansky, R.M. (2019). Stress: Influence of sex, gender and reproductive status. *Neurobiology of Stress* Mar 9; 10:100155. PMID: 30949564.
11. **Rincón-Cortés, M.**, Gagnon K.G., Dollish, H.K.++, and Grace, A.A. (2018). Diazepam reverses increased anxiety-like behavior, social behavior deficit, and dopamine dysregulation following withdrawal from acute amphetamine. *Neuropsychopharmacology*; 43 (12): 2418-25. PMID: 29959439.
12. Boulanger-Bertolus, J., **Rincón-Cortés, M.**, Sullivan, R.M., and A.M. Mouly (2017). Understanding pup affective state through ethologically significant USV frequency. *Scientific Reports* Oct 18;7(1):13483. PMID: 29044126.
13. **Rincón-Cortés, M.** and Grace, A.A. (2017). Sex-dependent effects of stress on immobility behavior and VTA dopamine neuron activity: modulation by ketamine. *International Journal of Neuropsychopharmacology* 20 (10):823-832. PMID: 28591782.
  - Selected as Editor's Choice in the October 2017 issue
14. Yan, C.G.\*, **Rincón-Cortés, M.**\*, Rainecki, C., Sarro, E., Colcombe, S., Guilfoyle, D.N., Yang, Z., Gerum, S., Biswal, B.B., Milham, M.P., Sullivan, R.M., Castellanos, F.X. (2017). Aberrant development of intrinsic brain activity in a rat model of caregiver maltreatment of offspring. *Translational Psychiatry* Jan 17; 7, e1005. PMID: 28094810.
15. Gomes, F.V., **Rincón-Cortés, M.**\*, and Grace, A.A. (2016). Adolescence as a period of vulnerability and intervention in schizophrenia: Insights from the MAM model. *Neuroscience and Biobehavioral Reviews* 70: 260-270. PMID: 27235082.
16. **Rincón-Cortés, M.**, and Sullivan, R.M. (2016). Emergence of social behavior deficit, blunted corticolimbic activity and adult depression-like behavior in a rodent model of maternal maltreatment. *Translational Psychiatry* Oct 25;6(10): e930. PMID: 27779623.
17. **Rincón-Cortés, M.**, Barr. G.A., M., Mouly, A.M., Shionoya, K., Nuñez, B.S.++, and Sullivan, R.M. (2015). Enduring good memories of infant trauma: Rescue of adult neurobehavioral deficits via amygdala serotonin and corticosterone interaction. *Proceedings of the National Academy of Sciences* 112 (3): 881-6. PMID: 25284320.
18. Rainecki, C., Sarro, E, **Rincón-Cortés M.**, Perry, R.E., Boggs, J., Holman, C., and Sullivan, R.M. (2015). Paradoxical neurobehavioral rescue by memories of early-life abuse: The enduring safety signal value of maternal odor learned during abusive attachment in infancy *Neuropsychopharmacology* 40 (4): 906- 914. PMID: 25284320.
19. **Rincón-Cortés, M.** and Regina M. Sullivan. (2014). Early Life Trauma and Attachment: Immediate and Enduring Effects on Neurobehavioral and Stress Axis Development. *Frontiers in Neuroendocrine Science* 5(33). PMID: 24711804.

20. Raineke, C., **Rincón-Cortés, M.**, Belnoue, L, and Sullivan, R.M. (2012). Effects of early life abuse differ across development: Infant social behavior deficits are followed by adolescent depressive-like behaviors mediated by the amygdala. *Journal of Neuroscience* 32 (22): 7758-65. PMID: 22649253.

## PENDING PUBLICATIONS

21. **Rincón-Cortés, M.** and Grace, A.A. (Accepted). Adult stress exposure blunts dopamine system hyperresponsivity in a neurodevelopmental model of schizophrenia. *npj Schizophrenia*
22. **Rincón-Cortés, M.** and Grace, A.A. (In revision). Sex-dependent emergence of prepubertal social dysfunction and augmented dopamine function in a neurodevelopmental rodent model relevant for schizophrenia.

## INVITED TALKS

- 2021 Colegio Colombiano de Neurociencia (COLNE)/Colombian School of Neuroscience (Virtual)
- 2021 Department of Psychology, University of Massachusetts at Amherst (Virtual)
- 2021 Department of Neuroscience, School of Behavioral and Brain Sciences, University of Texas at Dallas (Virtual)
- 2021 CINP Rafaelsen Young Investigator Award Symposium, CINP Virtual Meeting
- 2021 Pitt/CMU CNBC Underrepresented Minority (URM) Early Career Researcher (ECR) Seminar Series (Virtual)
- 2021 John Hopkins University Department of Pharmacology and Molecular Sciences Seminar Series (Virtual)
- 2021 McLean Hospital/Harvard Medical School Center for Depression, Anxiety, and Stress Research (CDASR) Speaker Series (Virtual)
- 2020 ACNP Panel: Hardship, Hard Drugs and Soft Circuits, ACNP Virtual Meeting
- 2020 Temple University Maladaptive Motivated Behavior (MMB) Neuroscience Seminar Series (Virtual)
- 2020 Staying Connected: Virtual Postdoctoral Fellow Seminar Series (Virtual)
- 2020 Neurobiology of Grief International Network (NOGIN), Tucson, AZ
- 2019 Emerging Neuroscientist Seminar Series (ENSS), Sainsbury Wellcome Centre, London, UK
- 2019 Researchers on the Rise Brief Talk Session, Developmental Affective Neuroscience Symposium (DANS), Pittsburgh, PA
- 2019 Panel speaker, National Hispanic Science Network (NHSN), New Orleans, LA
- 2018 Nanosymposium speaker, SfN Annual Meeting, San Diego, CA
- 2018 Neurobiology of Stress Workshop, Banff, Alberta, Canada
- 2018 Winter Conference on the Neurobiology of Learning and Memory, Park City, UT

- 2017 Gordon Research Seminar (GRS): Catecholamines, Newry, ME
- 2017 Nanosymposium speaker, Eastern Psychological Association (EPA), Boston, MA
- 2017 Postdoctoral Speaker, Center for Neuroscience at the University of Pittsburgh (CNUP) Annual Retreat, Wheeling, WV
- 2015 Awards Symposium, ISDP, San Sebastián, Spain  
*\*Talk given as part of acceptance of the ISDP Dissertation Research Award*
- 2014 Nanosymposium speaker, SfN, Washington, D.C.
- 2014 Nanosymposium speaker, EPA, Boston, MA
- 2014 Group Meeting, Neuroscience Department, NYU Langone Medical Center, NY, NY
- 2013 Child Study Center at NYU Langone Medical Center, NY, NY
- 2013 CNRS Sensory Systems and Olfaction Group Meeting, Lyon, France
- 2013 Nanosymposium speaker, EPA, New York, NY
- 2012 Nanosymposium speaker, SfN, New Orleans, LA

### CONFERENCE ABSTRACTS (POSTERS)

1. **Rincón-Cortés, M.** and A.A. Grace. Pup removal shortly after birth induces long-lasting alterations in behavior and dopamine activity in late postpartum rats: partial modulation by social context, 58<sup>th</sup> Annual Meeting of the American College of Neuropsychopharmacology (ACNP), December 9, 2019, Orlando, FL.
2. **Rincón-Cortés, M.** and A.A. Grace. Social context modulates depressive-like behavior and dopamine deficit induced by early pup removal in late postpartum rats, Society for Neuroscience (SfN), October 23, 2019, Chicago, IL.
3. **Rincón-Cortés, M.** and A.A. Grace. Time-dependent changes in affect-related behavior and VTA DA activity during the postpartum period in rodents, International Behavioral Neuroscience Society (IBNS), June 25, 2019 Cairns, Queensland, Australia.
4. **Rincón-Cortés, M.** and A.A. Grace. Time-dependent changes in affect-related behavior and VTA DA activity throughout the rodent postpartum period. 74<sup>th</sup> Annual Meeting of the Society for Biological Psychiatry (SOBP), May 18, 2019, Chicago, IL.
5. **Rincón-Cortés, M.** and A.A. Grace. Affective dysregulation and dopamine hypofunction in female rodents during the early postpartum period. 57<sup>th</sup> Annual Meeting of the ACNP, December 10, 2018, Hollywood, FL.
  - 3<sup>rd</sup> place, Monday poster session
6. **Rincón-Cortés, M.** and A.A. Grace. Parity-driven changes in affect and dopamine neuron activity vary across the postpartum period. Stress Neurobiology Workshop, June 11, 2018 Banff, Alberta, Canada.

7. **Rincón-Cortés, M.** and A.A. Grace. Parity-driven changes in affect and dopamine function in rodents: relevance for postpartum depression. 73<sup>rd</sup> Annual Meeting of the SOBP, May 10 2018, New York, NY.
8. **Rincón-Cortés, M.** and A.A. Grace. Postpartum effects on the dopamine system of female rats. 56<sup>th</sup> Annual Meeting of the ACNP, December 5, 2017, Palm Springs, CA.
  - 2<sup>nd</sup> place, Tuesday poster session
9. **Rincón-Cortés, M.** and A.A. Grace. Diazepam reverses social anhedonia and dopamine deficit following acute amphetamine withdrawal. Presented at the annual meeting of the Society for Social Neuroscience (S4SN) on Nov 10, 2017 and the 47<sup>th</sup> Annual Meeting of the SfN, November 13, 2017, Washington, D.C.
10. **Rincón-Cortés, M.** and A.A. Grace. Sex-dependent effects of stress on immobility behavior and VTA dopamine neuron activity: modulation by ketamine. 11<sup>th</sup> Annual Meeting of the Organization for the Study of Sex Differences (OSSD), May 17, 2017, Montréal, CA.
11. **Rincón-Cortés, M.,** and A.A. Grace. Adult stress exposure blunts DA system responsivity in MAM rats. 55<sup>th</sup> Annual Meeting of the ACNP, December 5, 2016, Hollywood, FL.
12. **Rincón-Cortés, M.,** and A.A. Grace. Sex-dependent effects of forced swim and chronic mild stress on immobility behavior and VTA DA neuron activity: Impact of ketamine. 46<sup>th</sup> Annual Meeting of the SfN, November 13, 2016, San Diego, CA.
13. **Rincón-Cortés, M.,** and Sullivan, R.M. Emergence of social behavior deficit, blunted corticolimbic activity and adult depression-like behavior in a rodent model of maternal maltreatment. Annual Meeting of the S4SN, November 11, 2016, San Diego, CA.
14. **Rincón-Cortés, M.,** and A.A. Grace. Sex-dependent effects of forced swim and chronic mild stress on immobility behavior and VTA DA neuron activity: Impact of ketamine. 71<sup>st</sup> Annual Meeting of the SOBP, May 13 2016, Atlanta, GA.
15. **Rincón-Cortés, M.,** and A.A. Grace. Female rats exhibit lower baseline dopamine neuron activity and higher depression-like behavior that is exacerbated by chronic mild stress: impact of ketamine. 54<sup>th</sup> Annual Meeting of the ACNP, Dec. 9, 2015, Hollywood, FL.
16. **Rincón-Cortés, M.** and R.M. Sullivan. Developmental disruption of social behavior following early life abuse is mediated by the amygdala and rescued by environmental enrichment. 44<sup>th</sup> Annual Meeting of the SfN, Nov. 18, 2014, Washington DC.
17. **Rincón-Cortés, M.,** Barr, G.A., and R.M. Sullivan. Infant attachment associated with pain produces later-life depressive-like behavior that is rescued by maternal odor and intra-amygdala serotonin manipulation. 46<sup>th</sup> Annual Meeting of the International Society for Developmental Psychobiology (ISDP) and 43<sup>rd</sup> Annual Meeting of SfN, Nov. 2013, San Diego, CA.
18. **Rincón-Cortés, M.,** G.A. Barr and R.M. Sullivan. Behavioral rescue of adult depressive-like behavior following abusive attachment during infancy: A role for amygdala serotonin. Gordon Research

Conference (GRC): Amygdala in Health and Disease, August 2013, Stonehill College, Easton, MA.

19. **Rincón-Cortés, M.** and R.M. Sullivan. Effects of early life stress and infant experiences on neurobehavioral development. 42<sup>st</sup> Annual Meeting of the SfN, Diversity Poster Session, October 13, 2012, New Orleans, USA.
20. **Rincón-Cortés, M.** and R.M. Sullivan. Effects of early life stress and infant experiences on neurobehavioral development. NIDA Mini Convention: Frontiers in Addiction Research, Early Career Investigator Poster Session, October 12, 2012, New Orleans, LA.
21. **Rincón-Cortés M.** and Sullivan R.M. Developmental disruption of rat social behavior: Implications for psychiatric disorders characterized by impaired social behavior. 67<sup>th</sup> Annual Meeting of the SOBP, May 2012, Philadelphia, PA.
22. **Rincón-Cortés M.,** Rainecki, C., Moriceau, S., and Sullivan, R.M. Infant social behavior dysfunction predicts adolescent depressive-like behaviors. Presented at both the 43<sup>rd</sup> Annual Meeting of the International Society for Developmental Psychobiology (ISDP) and the 40<sup>th</sup> Annual Meeting of the SfN, November 2010, San Diego, CA.

## **TEACHING AND MENTORING EXPERIENCE**

### *University of Pittsburgh*

#### Teaching

2019 Guest Lecturer, Autism, Psychiatric Disorders and Brain Function Undergraduate Course

2016 Guest Lecturer, Narcolepsy, Psychiatric Disorders and Brain Function Undergraduate Course

#### Mentoring (1 visiting Master's student, 4 undergraduate students)

2018 Katharina Klinger, M.S. Currently a Ph.D. student at the Otto von Guericke University Magdeburg in Germany.

2018 Samuel B. Cartwright, undergraduate student. Currently a junior Neuroscience major at University of Pittsburgh.

2017-2018 Isabel Yoon, undergraduate student. Currently a senior Neuroscience major at Carnegie Mellon University (CMU).

2016 Hannah K. Dollish, undergraduate student. Currently holds a B.S. and is a Neuroscience Ph.D. student in Dr. Fabian Fernández's lab at Arizona State University.

2015-2016 Cara Lyons, undergraduate student. Currently holds a B.S. and is a Master's student in Public Health at the University of Pittsburgh

### *New York University Medical Center*

#### Mentoring (1 graduate student, 1 visiting graduate student 4 undergraduate students)

2010-2014 Laboratory research mentor for graduate student Rosemarie E. Perry (PhD, currently a postdoctoral fellow at NYU), visiting graduate student Julie Boulanger-Bertolus (Ph.D.,



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currently a postdoctoral fellow at the University of Michigan) and undergraduate students Brianna Lalji (BS, currently a Doctor of Optometry), Sheilyn B. Nunez (BS, currently a Research and Development Specialist at Regeneron Pharmaceuticals) and Tanya George (BS, completed a Master's in Psychology program at NYU).

## **PROFESSIONAL SERVICE AND ACTIVITIES**

### Peer Review

*Neuropsychopharmacology, Translational Psychiatry, Neurobiology of Stress, Developmental Psychobiology, Developmental Cognitive Neuroscience, Learning and Memory, International Journal of Neuropsychopharmacology, Behavioral Brain Research, Psychopharmacology, Journal of Affective Disorders, Psychoneuroendocrinology, Frontiers in Behavioral Neuroscience, Frontiers in Human Neuroscience, Psychiatry Research, Neurobiology of Learning and Memory, Neuroscience, Neuropharmacology, eNeuro, Brain and Behavior, Brain Research, Social Cognitive and Affective Neuroscience, European Journal of Neuroscience, International Journal of Molecular Sciences, Physiology and Behavior*

### Service and Diversity/Inclusion Efforts:

- 2022-2024 Member, ACNP Program Committee
- 2021 Panel Speaker, Networking in a Virtual Era, NYU Diverse Neuroscientist Doctoral Training Series (DeNDriTes)
- 2021-2022 Editor in Chief, IBNS Newsletter  
Co-Chair, IBNS Membership and Communications Committee
- 2020-2021 Co-Editor in Chief, IBNS Newsletter
- 2020-2021 Committee Member, Center for the Neural Basis of Cognition (CNBC) Underrepresented Minority (URM) Early Career Researcher (ECR) Seminar Series
- 2019-2021 IBNS Diversity and Ethics Committee and IBNS Membership and Communications Committee
- 2018 Postdoctoral Member, Center for Neuroscience at the University of Pittsburgh (CNUPI) Retreat Organizing Committee
- 2017- Frontiers in Behavioral Neuroscience (Review Editor)
- 2017 Panelist, ACNP Underrepresented Minority (URM) Luncheon, Palm Springs, CA
- 2017 Ad Hoc Member, ACNP Minority Task Force

### Professional Memberships

American College of Neuropsychopharmacology (ACNP)  
Society for Neuroscience (SfN)  
International Behavioral Neuroscience Society (IBNS)  
International College of Neuropsychopharmacology (CINP)