

# Nadira del R. Yusif Rodríguez

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Brown University, Neuroscience Graduate Program

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## Education

**Brown University**, Neuroscience Department  
Doctoral candidate (PhD) in Neuroscience  
University of Puerto Rico, Rio Piedras Campus  
B.A. Psychology

Providence, RI  
2016 – Expected Winter 2022  
San Juan, PR  
2016

## Research Experience

### Graduate

Neuroscience, Brown University; Advisor: Dr. Theresa Desrochers

Providence, RI  
2016 – Present

#### **Neural representation of abstract sequences in nonhuman primates**

Trained and scanned awake primates using fMRI while they complete computerized visual tasks developed using Tcl/Tk. Completed imaging and behavioral eye movement data analysis using Matlab/SPM.

### Undergraduate

University of Puerto Rico, Rio Piedras; Advisor: Dr. Carmen Maldonado-Vlaar

2014-2016

#### **Blockade of FAAH/TRPV1 and Indirect Activation of CB1 Receptors in the NAcc Shell**

Intracranially microinjected rats in the Nucleus Accumbens shell. Used behavioral tasks, histological techniques, and biochemical assays like Western Blotting to examine the role of these receptors in the endocannabinoid system and anxiety-like states.

University of Puerto Rico, Rio Piedras; Advisor: Dr. Guillermo Bernal

2013-2016

#### **Meta-analysis of Therapeutic Effectiveness in Hispanic/Latinos**

Examined studies containing therapeutic interventions for psychological conditions, with an emphasis on anxiety and depression. Completed a meta-analysis on selected studies that included therapeutic intervention in Hispanic and Latino populations.

Leadership Alliance SR-EIP, Brown University; Advisor: Joo-Hyun Song

Summer 2015

#### **Interference Effect on Visuomotor Rotational Adaptation and Recall**

Tested human participants on a computerized behavioral task developed using Matlab code to study visuomotor learning interference and adaptation.

## Funding

Trainee, NSF-EPSCoR Neural Basis of Attention, #1632738

2018-2021

Trainee, NIGMS-NIH Initiative to Maximize Student Development (IMSD),

2016-2018

#R25GM083270

## Publications

- Ahuja, A., & **Yusif Rodriguez, N.** (2022). Is the Dorsolateral Prefrontal Cortex Actually Several Different Brain Areas?. *Journal of Neuroscience*, (in press).
- Desrochers, T. M., Ahuja, A., Maechler, M., Shires, J., **Yusif Rodriguez, N.**, & Berryhill, M. E. (2022). Caught in the ACTS: Defining Abstract Cognitive Task Sequences as an Independent Process. *Journal of Cognitive Neuroscience*, 1-12.
- Milham, M., Petkov, C., Belin, P., Hamed, S. B., Evrard, H., Fair, D., ... **Yusif Rodriguez, N.**, ... & Ortiz-Rios, M. (2022). Toward next-generation primate neuroscience: A collaboration-based strategic plan for integrative neuroimaging. *Neuron*, 110(1), 16-20.
- Pardo-García, T. R., **Yusif-Rodriguez, N.**, Yudowski, G., & Maldonado-Vlaar, C. S. (2020). Blockade of the endovanilloid receptor, TRPV1, and of the endocannabinoid enzyme, FAAH, within the nucleus accumbens shell elicits anxiolytic-like effects in male rats. *Neuroscience letters*, 732, 135023.
- Adames, C., Bernal, G., and **Yusif, N.** (2015). The Training Challenges in Evidence Based Psychological Treatments and Evidence Based Practice: Answer to Reflection on Training by Padilla-Martínez. *Ciencias de la Conducta*, 30(1), 192-199.

## Awards and Academic Achievements

|                                                                                                      |      |
|------------------------------------------------------------------------------------------------------|------|
| Vanderbilt Integrated Training Alliance (VITA) Scholars Symposium                                    | 2021 |
| Course Manager, Summer Program In Neuroscience Excellence and Success (SPINES), MBL                  | 2019 |
| Invited Participant, Summer Program In Neuroscience Excellence and Success (SPINES), MBL             | 2017 |
| Invited Participant, Quantitative Methods Workshop (QMW), MIT                                        | 2016 |
| Outstanding Presentation Award, Annual Biomedical Research Conference for Minority Students (ABRCMS) | 2015 |
| Research Assistantship, NIH-Research Initiative for Scientific Enhancement (RISE)                    | 2015 |
| International Honor Society in Psychology (PSI CHI)                                                  | 2015 |
| Puerto Rico House of Representatives Award for student led meta-analysis workshop                    | 2015 |
| Dean's List , University of Puerto Rico, Rio Piedras Campus                                          | 2013 |

## Organizations and Memberships

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|----------------------------------------------------------------------------------------------------------------------|---------------|
| Member, Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), Brown University | 2016- Present |
| Member, Graduate Women in Science & Engineering (GWISE), Brown University                                            | 2016- Present |
| Member, Society for Neuroscience (SfN)                                                                               | 2015- Present |
| Community Outreach Director of Brown University's SACNAS Chapter                                                     | 2017- 2020    |
| Neuroscience Scholars Program Associate, Society for Neuroscience (SfN)                                              | 2017-2019     |

## Community Service

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|------------------------------------------------------------------------------|-----------|
| Community outreach liaison, Rhode Island Museum for Science and Art (RIMOSA) | 2018-2020 |
| Big Bang Science Fair in Providence, RI science activity table               | 2019      |
| Brain Week, Brown Brain fair activity table                                  | 2017-2019 |
| Foo Fest Providence, RI science activity table                               | 2018      |
| Creation and presentation of a meta-analysis workshop for students           | 2015      |
| Creation of a scientific poster workshop for student research initiative     | 2015      |

## Mentoring and Teaching

### Mentees

|                                                                                          |              |
|------------------------------------------------------------------------------------------|--------------|
| Kyoko Leaman – Independent Research and Undergraduate Teaching and Research Award (UTRA) | 2021-Present |
| Jay Vankawala - UTRA and honor's thesis                                                  | 2019-2021    |
| Ambar Delgado - Brown University Post-Baccalaureate Research Education Program (PREP)    | 2018-2019    |
| Meghan Hershkowitz - UTRA                                                                | Summer 2018  |

### Teaching

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|-------------------------------------------------------------------|-----------------|
| Guest Lecturer, NEUR2050: Advanced Systems Neuroscience           | Fall 2020, 2021 |
| Experimental design session for BP-Endure Summer students         | 2019            |
| CareerLab Panelist - Graduate School in the Sciences              | 2018            |
| Teaching Assistant, NEUR1540: Neurobiology of learning and memory | Spring 2018     |

### Ad Hoc Journal Reviewer

Journal of Neuroscience • Cerebral Cortex • Journal of Cognitive Neuroscience

### Other Skills

**Programming:** Matlab (proficient), tcl/tk (intermediate), bash (intermediate), Python (beginner), R (beginner)

**Version Control:** Git

**Languages:** Spanish (native), English (fluent), Portuguese (beginner)

### Abstracts and Presentations

**Yusif, N.\*** and Desrochers, T.M. (October, 2019) Frontal cortex dynamics during passive sequence viewing using behaving nonhuman primate fMRI. Poster presented at the Society for Neuroscience annual meeting in Chicago, IL.

**Yusif, N.\*** and Desrochers, T.M. (November, 2018) Prefrontal cortex dynamics during sequential tasks using awake behaving nonhuman primate fMRI. Poster presented at the Society for Neuroscience annual meeting in San Diego, CA.

**Yusif, N.\*** and Desrochers, T.M. (July, 2018) Prefrontal cortex dynamics during sequential tasks using awake behaving nonhuman primate fMRI. Poster presented at the Neurobiology of Cognition, Gordon Research Conference in Newry, ME.

**Yusif, N.\*** and Desrochers, T.M. (July, 2017) Passive sequence viewing in non-human primates during awake fMRI. Oral presentations in SPINES at MBL in Woods Hole, MA and Neural Basis of Attention 2017 conference at Dartmouth in Hanover, NH.

Pardo, T.\*, **Yusif, N.\***, and Maldonado-Vlaar, C. (November, 2016). Modulation of the endocannabinoid system within the NAcc shell elicits anxiolytic-like effects in rats. Poster presented at the Society for Neuroscience annual meeting in San Diego, CA.

**Yusif, N.\***, Wang, T., and Song, J. H. (November, 2015). Interference Effect on Visuomotor Rotational Adaptation and Recall. Poster presented in the Annual Biomedical Research Conference for Minority Students (ABRCMS) in Seattle, WA.

- Adames, C.\*, Mariani, K.\*, **Yusif, N.\***, and Rivera, N\*. (October, 2015). Meta-Analysis Workshop: For Students, By Students. Workshop presented at the Institute of Psychological Research of the University of Puerto Rico, Rio Piedras Campus in San Juan, PR.
- Pardo, T.\*, **Yusif, N.\***, and Maldonado-Vlaar, C. (October, 2015). Modulation of the Endocannabinoid System Within the Nucleus Accumbens Shell Elicits Anxiolytic Effects. Poster presented at the Society for Neuroscience annual meeting in Chicago, IL.
- Yusif, N.\***, Wang, T., and Song, J. H. (July, 2015). Interference Effect on Visuomotor Rotational Adaptation and Recall. Oral presentation at the Leadership Alliance National Symposium in Stamford, Connecticut. Poster presented at Brown University in Providence, RI.
- Perez, C.\*, **Yusif, N.\***. (April, 2015). Meta-Analysis workshop: By students, for students. Workshop presented at the Third Under-Graduate Encounter of Research and Creation by “Iniciativas de investigación y Actividad Creativa Subgraduada” (IINAS) in San Juan, PR.
- Perez, C.\*, **Yusif, N.\***. and Bernal, G. (April, 2015). Systematic Review of Treatment Adherence in Psychosis Studies according to Treatment Condition. Poster presented at the Third Under-Graduate Encounter of Research and Creation by “Iniciativas de Investigación y Actividad Creativa Subgraduada” (IINAS) in San Juan, PR.
- Pardo, T.\*, **Yusif, N.** and Maldonado-Vlaar, C. (April, 2015). Modulation of the Endocannabinoid System Within the Nucleus Accumbens Shell Elicits Anxiolytic Effects. Poster presented at the Third Under-Graduate Encounter of Research and Creation by “Iniciativas de investigación y Actividad Creativa Subgraduada” (IINAS) in San Juan, PR.
- Yusif, N.\***. (April, 2014). Systematic Review of fMRI’s and ADHD in children and adolescents. Poster presented at the Second Under-Graduate Encounter of Research and Creation by “Iniciativas de investigación y Actividad Creativa Subgraduada” (IINAS) and at the Carlos Albizu University in San Juan, PR.
- Pardo, T.\*, **Yusif, N.** and Maldonado-Vlaar, C. (December, 2014). Dual Blockade of FAAH/TRPV1 and Indirect Activation of CB1 Receptors in the Nucleus Accumbens Shell. Poster presented at the Puerto Rico Neuroscience Conference 2014 at the Interamerican University, Bayamon Campus
- Bernal, G.\*, Adames, C., Ortíz, S., Rodriguez-Quintana, N., López, J., Negrón, L., **Yusif, N.** & Pérez, C. (October, 2013). State of the art and science on psychosocial treatments with adult Latinos. Presented at Michigan State University Symposium on Multicultural Psychology, East.