

Language**English**

Understand / Read / Speak / Write

Spanish

Understand / Read / Speak / Write

Fellowships and Scholarships

2020 Kavli Fellow, Kavli Foundation and US National Academy of Sciences
2019 Burroughs Foundation Postdoctoral Enrichment Fellowship
2019 Ford Foundation Postdoctoral Fellowship
2017-2019 Simons Social Brain Postdoctoral Fellowship
2016 American College of Neuropharmacology (ACNP) travel award recipient
2015 Carl Storm Fellowship for the Amygdala Gordon Conference
2014 Travel Award for University of Wisconsin Health and Emotions 2014 Conference
2013-2016 National Science Foundation Graduate Research Fellowship
2013 Ford Foundation Predoctoral Fellowship recipient
2011-2013 Neuroscience Scholar Program (NSP) fellow, Society for Neuroscience
2010 Travel Award for University of Wisconsin Health and Emotions 2010 Conference
2010 MIT biology summer research program oral presentation award
2009 ABRCMS Best oral presentation award
2009-2011 Minority Access to Research Careers (MARC) Research Fellowship
2008-2011 Natural Sciences School Honor Roll and Dean's list, University of Puerto Rico

Publications and Research

1. Nancy Padilla-Coreano, Sarah Canetta, Rachel M. Mikofsky, Emily Always, Johannes Passecker, Maxym V. Myroshnychenko, Alvaro L. Garcia-Garcia, Richard Warren, Eric Teboul, Dakota R. Blackman, Mitchell P. Morton, Sofiya Hupalo, Kay M. Tye, Christoph Kellendonk, David A. Kupferschmidt, Joshua A. Gordon (2019) Hippocampal-prefrontal theta transmission regulates avoidance behavior. *Neuron*, 104, 601-610.
2. Cara Altimus, Bianca Marlin, Naomi Charalambakis, Alexandra Colón-Rodriguez, Nancy Padilla-Coreano, Elizabeth Glover, Patricia Izbicki, Anthony Johnson, Mychael Lourenco, Ryan Mackinson, Joseph McQuail, Ignacio Obeso, and Michael Wells. (2019) SfN 50-Year Prospective. *Journal of Neuroscience* (2020).
3. C.M. Vander Weele, C.A. Siciliano, G.A. Matthews, P Nambury, E.M. Izadmehr, I.C. Espinel, E.H. Nieh, E.H.S. Schut, N. Padilla-Coreano, A. Burgos-Robles, C. Chang, E. Kimchi, A. Beyeler, R. Wichmann, C.P. Wildes, K.M. Tye. (2018) Dopamine enhances signal-to-noise ratio in cortical-brainstem encoding of aversive stimuli. *Nature*.
4. Jiangteng Lu*, Jason Tucciarone*, Nancy Padilla-Coreano, Miao He, Joshua A. Gordon, Z. Josh Huang. (2017) Selective inhibitory control of pyramidal neuron ensembles and cortical subnetworks by chandelier cells. *Nature Neuroscience*, 20, 1377–1383
5. Padilla-Coreano N., Bolkan S., Pierce G., Blackman D., Spellman T. and Gordon J.A. (2016) Direct hippocampal-prefrontal input is required for anxiety-related neural activity and behavior. *Neuron*, 89, 857-866.
6. Canetta S., Bolkan S., Padilla-Coreano N., Song L., Sahn R., Harrison N., Gordon J.A., Brown A. and Kellendonk C. (2016) Prenatal Maternal Immune Activation Leads to Selective Functional Deficits in Adult PV Interneurons. *Molecular Psychiatry*, 1-13
7. Padilla-Coreano N., Do Monte F.H. and Quirk G.J. (2012) A time-dependent role of midline thalamic nuclei in the retrieval of fear memory. *Neuropharmacology*, 62(1):457-63.
8. Sierra-Mercado D., Padilla-Coreano N. and Quirk G.J. (2011) Dissociable roles of prelimbic, infralimbic, ventral hippocampal, and basolateral amygdala areas in fear

expression and extinction memory. *Neuropsychopharmacology*, 36(2):529-38.

Letters of Recommendation

Mentor/Advisor Received by Joshua Gordon (jagord@gmail.com) on 1/27/2020
Post-Doctoral Advisor Received by Kay Tye (tye@salk.edu) on 1/22/2020
Other Received by (gregoryjquirk@gmail.com) on

Record of Employment

Place of Employment

Columbia University
9/1/2011 - 7/1/2016
Graduate Student

Massachusetts Institute of Technology
9/5/2016 - 3/31/2019
Postdoctoral Associate

The Salk Institute for Biological Studies
4/1/2019 - Current Employer
Postdoctoral Fellow

Details of Proposed Research

Proposal Title Elucidating how the brain encodes social dominance

Proposal Abstract Our lack of basic knowledge on how the brain encodes social behaviors makes it challenging to develop therapeutics for social deficits that are common to psychiatric disorders. In many species, social rank dictates many aspects of behavior, such as access to resources and resilience to stress. Individuals with higher social rank typically win more often during social conflicts and show more agonistic behaviors; collectivity referred to as dominance behaviors. Cross-species evidence suggests that the medial prefrontal cortex (mPFC) plays a role in social dominance. However, exactly how the mPFC encodes social rank and which mPFC circuits drive dominance behaviors is unknown. My preliminary data suggest that the projection from the mPFC to the lateral hypothalamus (LH) modulates social dominance behavior in a novel assay. Progress in uncovering how the brain encodes social behavior has been limited by the tools used to measure behavior; existing assays lack trial-structure needed for statistical power and are often simplistic. I developed a trial-based social competition assay in which mice compete against cagemates for a reward. This assay facilitates the quantification of behavior and subsequently the identification of neural correlates. My preliminary data show that dominant mice win most of the time during the reward competition, thus this assay is useful to study dominance behaviors. I propose to use machine learning to better quantify social behaviors, and use wireless electrophysiology and optogenetics to test the hypothesis that mPFC activity encodes social rank and that the mPFC-LH circuit drives social dominance.

Keyword 1 social behaviors

Keyword 2 neural circuits

Keyword 3 electrophysiology

Proposal Research Area -- Behavioral

Research Plan Loreal Research Plan_final.pdf Attached

Intended Place of Post-Doc

Institution The Salk Institute for Biological Studies
Department Systems Neurobiology Laboratory
City La Jolla
State CA
Advisor Name Kay Tye
Advisor Title Professor

Candidate's Statement

Statement Candidate statement Loreal_final.pdf Attached

Budget Estimate

Category of Expense	L'Oréal USA Fellowship	Other Funding Source	Total Budget
Small Equipment	\$10,000.00	\$0.00	\$10,000.00
Travel/Conference Registration	\$4,000.00	\$0.00	\$4,000.00
Computer and Technical Services	\$9,000.00	\$0.00	\$9,000.00
Other Expenses: Community service project	\$3,000.00	\$0.00	\$3,000.00
Other Expenses: Stipend for student assistant	\$30,000.00	\$0.00	\$30,000.00
Other Expenses: Tuition for courses	\$4,000.00	\$0.00	\$4,000.00
TOTALS	\$60,000.00	\$0.00	\$60,000.00

Budget Justification/Explanation

The PI is requesting funding support in the amount of \$60,000. A justification of the research costs is below. This grant will uniquely benefit the applicant because it will provide funding for equipment necessary for the experiments proposed and it will provide technical support that will facilitate the applicant's research. Receipt of this grant will not result in duplication of funding or reduction of support from the Salk Institute for Biological Studies.

Computers/Software \$9,000

Computer station with GPU suitable for deep learning; Laptop for behavioral annotation and analyses; Licenses for software: Windows 10, Matlab, Adobe Suite, etc; Cost of data cleaning and annotation for deep learning training.

Wireless electrophysiology equipment \$10,000

MCU unit and wireless loggers from Spikegadgets Inc.

Course on Machine Learning \$4,000

UCSD extension courses on machine learning

Travel Expenses for Conferences \$4,000

The amount requested is to travel to two conferences. The PI will attend the meeting for the Society for Social Neuroscience and the meeting for the American College of Neuropsychopharmacology. These conferences will allow the PI to network as she enters the job market and also to disseminate her research findings. The PI commits to presenting her research findings in poster or talk format.

Stipend for an undergraduate student research assistant \$30,000

A stipend is requested for a research assistant for the PI. The PI has identified a promising undergraduate student, Deisy Martinez, who has already been working with the PI and is familiar with the project. This student is very talented but is currently limited in the time she can dedicate to the lab as she is part of a work-study program at UCSD for financial support. With this stipend, the student would be able to spend more time in the lab as she would get financial support.

This opportunity would serve to develop the student's career and training, and also increase the pace of the research proposed by the PI.

Expenses for community service project \$3,000

Microphones and expenses for an event to interview multiple women in science for the Stories of WiN podcast.

Social behaviors are central for survival and health¹. However, little is known about how the brain controls them. Some psychiatric disorders are characterized by disrupted social behaviors². Elucidating the neural circuits that underlie social behaviors is important for understanding basic brain function, as well as to develop potential treatments for social behavioral deficits seen in psychiatric disorders.

A basic tenet of animal social behavior is following social rank. In most social species, groups of animals self-organize into dominance hierarchies³. Humans, like many animals, form social hierarchies that allow them to avoid conflict and take better advantage of the environment as a group¹. Animals with higher social rank express more dominance; they obtain the majority of the resources and win the most conflicts⁴. After cohabitation, mice quickly form strong and stable dominance hierarchies⁵. In mice, social rank dictates many aspects of behavior, such as susceptibility to stress and anxiety traits⁶. Considering these facts and the existence of tools for studying and dissecting neural circuits in mouse models, mice make an excellent model to study the neural circuits underlying social dominance.

Cross-species evidence points to the medial prefrontal cortex (mPFC) being involved in social dominance³. Dominance is associated with increased activity in the mPFC⁵. Furthermore, mPFC optogenetic activation in subordinate mice leads to increased winning during social competition⁷. Although there is strong evidence that the mPFC plays a role in social dominance, several important questions remain unanswered. 1) Does mPFC encode social rank? and 2) which mPFC outputs modulate dominance behavior? Our lab has shown that manipulating the lateral hypothalamus (LH), which is involved in energy balance and motivation⁸, can modulate social investigation⁹. The mPFC has a strong projection to LH, making this a potential pathway to modify behavior based on social rank information. **I propose to test a model in which the mPFC encodes social dominance and modulates social dominance via the lateral hypothalamus.**

In order to tackle these questions, it is necessary to develop more quantitative measurements of dominance behavior. Existing assays, such as the tube test or urine marking test, are reliable but lack the structure and timescale that is beneficial for identifying neural correlates of social dominance. **I have developed a trial-based reward competition assay that allows more quantitative measures of dominance behavior.** This assay is ethologically relevant since dominant mice obtain most of the rewards relative to subordinates, mimicking the priority access dominants have to resources in the wild¹⁵. Using this assay, machine learning and statistical methods, I will quantify how dominant and subordinate mice behave differently during competition (Aim 1; Fig 1). This will facilitate the identification of mPFC neural correlates of behavior and the identification of neural circuits that control dominance behavior. Further, to minimize disruptions in behavior I will use wireless *in vivo* electrophysiology to record mPFC neural activity during the reward competition in mice of identified social rank. This will allow me to **test the hypothesis that mPFC encodes social rank, and specifically that mPFC-LH neurons encode dominance** (Aim 2; Fig 1). Our preliminary data show that optogenetic activation of mPFC neurons that project to LH (mPFC^{LH}) leads to increased dominance behaviors during social competition. Thus, I will also **test the hypothesis that mPFC-LH activity modulates the expression of social dominance** (Aim 3; Fig 1).

Aim 1: Characterize the behavior of dominant and subordinate mice during a reward competition task. The goal of this aim is to create a detailed profile of how behavioral motifs differ across social ranks in mice. For this, I will combine a novel social dominance assay (Fig 2) with machine learning technology.

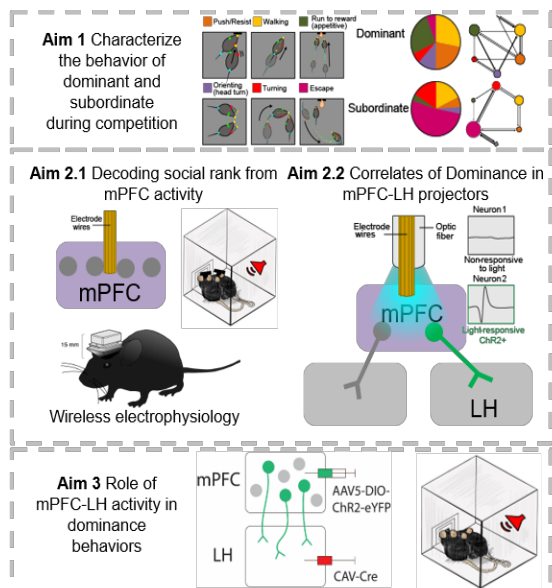


Figure 1: Summary of my approach to determine how the brain encodes social dominance. A. First, I will use deep learning and machine learning to characterize social dominance behaviors in a novel assay. **B.** Then I will record activity in the mPFC to see if rank can be decoded from population activity and identify cells that project to the LH to determine neural correlates of social rank. **C.** I will use optogenetics to determine if mPFC-LH is causally linked to social dominance behaviors.

Our data show that dominant mice spend more time at the reward port and are more successful at pushing the competitor away, suggesting that this assay captures the behavioral differences across social ranks. Using deep learning for pose-tracking, unsupervised machine learning to determine behavioral motifs, and network analysis to see how those behaviors relate to each other, I will characterize the behavioral motifs that occur during this competition assay (Fig 3). I hypothesize that dominant and subordinate mice have distinct frequencies and transition probabilities across behavioral motifs.

Methods/Expected Results: Mice will be group-housed with same age and sex cagemates. I will use the tube test⁵, an established assay for social dominance, to rank mice that are cohoused. Once cages have stable social ranks, I will food restrict and individually train mice to associate a tone cue with a palatable reward consisting of 10 uL of Ensure. Once mice have reached learning criteria they will compete in the reward competition against cagemates (Fig 2A). Mice will be identified with bleach patterns in their fur and high-quality video will be taken during the competition. Deep learning packages DeepLabCut¹¹ and AlphaPose¹² will be used for tracking the location of mice (Fig 3A). Since two mice can be at equal proximity to the reward port during reward delivery, a human observer will further inspect to identify who consumed the reward across trials. Using unsupervised machine learning, specifically hierarchical clustering¹³, I will cluster based on key features from pose tracking data (x,y, body contour, etc.) to determine what behavioral motifs occur in an unbiased manner. Preliminary data shows we can successfully track multiple mice and do unsupervised clustering of behavior (Fig 3A-B). After clustering, I will use network analysis to determine how identified behavioral motifs relate to each other in dominant vs subordinate mice, specifically quantifying transition probabilities and connections between motifs (Fig 3C). I expect that there will be differences in frequencies and transition probabilities of behavioral motifs across social ranks. Characterizing these behavioral differences carefully will enable us to better understand the relationship between neural activity and dominance behavior (Aim 2).

Aim 2: Determine if mPFC encodes social rank during social competition. Cross-species evidence shows that mPFC activity relates to social dominance, but it is still not understood if and how mPFC encodes social rank. **Aim 2.1** Utilizing the reward competition task and wireless electrophysiology, I will record mPFC single units in mice with stable social ranks to see how mPFC activity differs across ranks and if social rank can be decoded from mPFC activity during the social competition. Our preliminary data suggest that mPFC activity encodes winning and losing in the reward competition even before the cue is presented (data not shown). Thus I hypothesize that there will be differences in mPFC activity across social rank during social competition.

Aim 2.2 Considering our preliminary data that shows stimulating mPFC^{LH} neurons increases dominance

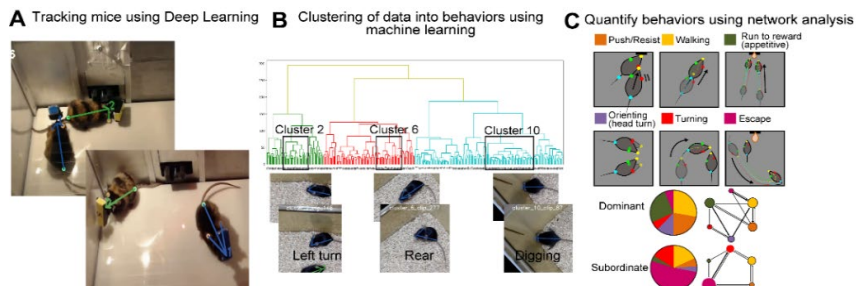
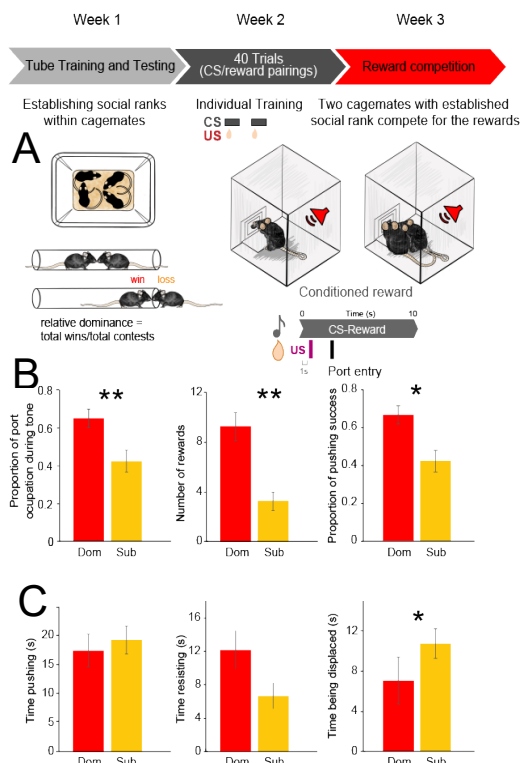


Figure 3: Pipeline to build behavioral profile for dominant and subordinate mice during reward competition. A. Example video frames of the reward competition assay showing successful tracking of mice with AlphaPose. B. Hierarchical clustering reveals clusters that correspond to behavioral motifs. Shown, example hierarchical clustering from homepage data as a proof of principle. C. I will quantify frequency of behavioral motifs (cartoons depict example behaviors) and perform network analysis of the motifs for dominant vs subordinate mice.

behavior in the reward competition, I hypothesize that mPFC^{LH} neurons encode dominance. I will use phototagging¹⁰ to record mPFC^{LH} neurons during the reward competition in mice across social ranks.

Methods/Expected Results: During the reward competition, I will record from intermediate rank mice while switching the competitor in the middle of a session to record the same neurons while this mouse competes with a dominant cagemate and a subordinate cagemate. Moreover, using a rehousing paradigm, after changing previously experienced social rank by distributing all dominant mice in one cage and subordinates in another, I will record from the mice again once their ranks have shifted within their new social group. Our preliminary data show that this rehousing paradigm successfully changes social ranks in mice. Using a support vector machine decoder, I will test if relative social rank can be predicted from mPFC population activity during social competition. I expect that relative dominance will be decoded from mPFC activity, and that mPFC^{LH} neurons will be more active in dominant mice and when displaying dominance behaviors. Moreover, comparing mPFC activity during the competition across ranks will inform on how mPFC encodes rank.

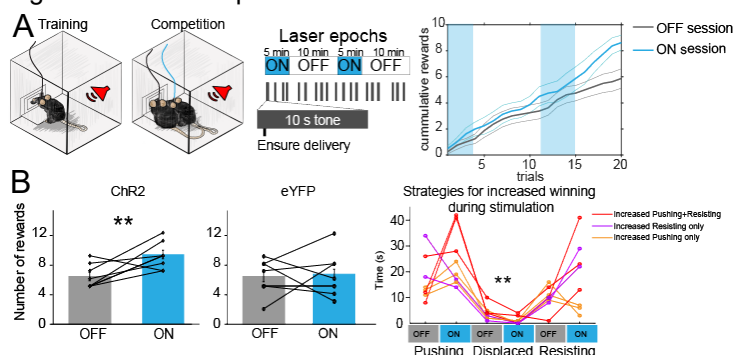


Figure 4: Optogenetic stimulation of mPFC-LH circuit increases winning during social competition. A. Left, diagram of experiment and stimulation protocol. Four pulses of 5 ms light at 100 Hz were delivered every 200 ms. Right, cumulative rewards for the experimental mouse in a baseline (OFF session) and the stimulation session (ON session). B. Left, average rewards obtained in baseline vs ON sessions increased with stimulation. Right, stimulation decreased time being displaced from reward port and increased resistance or pushing (color coded lines). ** $p < 0.01$

Aim 3: Determine the role of the mPFC-LH pathway in expression of dominance behaviors. In order to test if mPFC^{LH} projector activity is sufficient and/or necessary for dominance behavior expression, I will use optogenetics to excite or inhibit this population during the reward competition. My preliminary data shows that optogenetic activation of mPFC^{LH} projectors increases winning during a social competition (Fig 4). I hypothesize that the mPFC-LH pathway bidirectionally modulates behaviors associated with social dominance.

Methods/Expected Results: To selectively inhibit or excite mPFC^{LH} projectors, I will use the dual virus approach to express the light-activated chloride pump halorhodopsin (eNpHR3.0) or channelrhodopsin (ChR2) in mPFC cells projecting to LH. To this end, I will bilaterally inject AAV-DIO-eNpHR3.0-eYFP or AAV-DIO-ChR2-eYFP into the mPFC coupled with CAV2-Cre into the LH. In addition, I will implant an optic fiber into the mPFC to locally deliver light. A control group of mice will be injected with AAV-DIO-eYFP into the mPFC. Two months after viral injections, mice will be trained in the reward assay, and tested with alternating light off and on every 5 min in the reward competition assay while competing with a cagemate. Using the methods explained in Aim 1, I will analyze the behavioral motifs across light off and on periods of the competition. I expect that stimulation of the mPFC-LH circuit will result in increases of behavioral motifs associated with higher rank while inhibition of the mPFC-LH circuit will result in decreases in these behavioral motifs associated with higher social ranks.

Altogether these experiments will provide a better understanding of how the brain encodes social rank, how malleable this representation is after a change in social structure, and, ultimately, the circuits that control social dominance behaviors.

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On a recent birthday, a card from my student read “Nancy: Scientist, Dreamer and Mentor”. As my student wrote in that card, my life has been a journey of becoming a scientist, a dreamer, and most recently a mentor.

The Scientist: Growing up, I was fascinated by the brain. Though I started college with no clear career path to satisfy my curiosity for the brain, I quickly found my calling when I joined a neuroscience research lab studying how different brain regions contribute to fear learning. My undergraduate work resulted in two peer-reviewed publications and the steadfast motivation to understand how the brain controls behavior drove me to pursue a PhD in neuroscience. I started graduate school at Columbia University fascinated with understanding how circuits across brain regions give rise to behavior. I learned how to perform in vivo electrophysiology and used novel techniques to manipulate neuronal activity to tackle my questions. During my PhD, I studied how the circuit between the hippocampus and the prefrontal cortex controls avoidance behavior in mouse models. I took quantitative classes to improve my scientific rigor, and towards the end of graduate school, I recognized the need to study complex behaviors in a more quantitative manner. As a postdoctoral fellow, I am using wireless electrophysiology, optogenetics, and machine learning to investigate how the brain controls social behaviors in mouse models. My goal is to become a principal investigator and focus on understanding how our brain gives rise to social behavior and how disruptions in pro-social behavior occur in psychiatric disorders. Using the L’Oréal funding, I will be able to widen my training and scientific expertise by using funding to buy and implement wireless electrophysiology and machine learning approaches. I will also attend courses to increase my knowledge of machine learning implementation. Moreover, I will use L’Oréal funding to attend conferences to share my work within the neuroscience community as I enter the job market.

The Dreamer: I value creativity in science as much as I value rigor. I find inspiration for science in uncommon places, from watching people interact to analyzing my own dreams. Coming from a family of musicians, music drove me to neuroscience. As a child, I wondered how music triggered emotions and why some sounds were noise but others melodies. Nowadays, as a scientist, my curiosity and ability to dream has flourished. Recently, I had the opportunity to dream and envision what the next 50 years of neuroscience research could be in a peer-review article published in the Journal of Neuroscience. Through this experience I learned that to have a scientific vision you must dream and envision things that are not yet possible. I also use creativity to solve problems in my current research. I study social dominance, but the existing assays to study this social phenomenon lack the trial structure we need for statistical power and manipulations. Inspired by pushing boundaries, I designed a social dominance assay that has both trial structure and ethological validity. Another challenge in the study of social behaviors is getting precise behavioral quantification. Historically social behaviors have been scored by trained observers, but machine learning and computer vision now provide us the possibility of getting precise and unbiased behavioral measurements. Using the L’Oréal funding I will be better positioned to be creative in my research, specifically by learning novel machine learning approaches I will improve my ability to dissect how the brain controls social behaviors.

The Mentor: My mentors thus far have taught me that science *can* transform lives and society. Certainly, science transformed my life and created opportunities for me. I now aim to pay it forward by mentoring and creating opportunities for others. I am still learning how to best teach, mentor, and instill scientific purpose in my trainees, but giving them the freedom to be creative and test their hypotheses is a central feature of my mentoring style. Though my journey of mentoring younger scientists has only just begun, my deep commitment to mentorship and the inspiration I gain from my mentees drives me to be a better scientist every day. Another driving factor in my mentorship stems from knowing that some of the barriers that women and other minorities face in academia can be overcome with mentoring and with access to opportunities. Specifically, the L’Oréal funding will allow me to create opportunities for a talented Latina undergraduate student who will receive a stipend using my L’Oréal Fellowship. This experience will advance my research program and will help develop my leadership and mentoring skills. I believe that in order for my research to grow I must be an excellent mentor, so this experience is essential for my success as a Principal Investigator.

The L’Oréal USA for Women in Science grant will allow me the freedom I need to do creative and impactful science, while increasing diversity in academia and creating opportunities for the next generation of neuroscientists.

Until I entered college, I never considered it possible that I could become a scientist. The only scientists I had seen growing up were men in white lab coats on television, so as a young girl, it was hard for me to envision myself as one. No one in my family had a science degree nor had any advanced degrees. However, I found the brain fascinating and wanted to learn about it. I went to college at the University of Puerto Rico, thinking that a career in medicine would be a good path use for my scientific interests. Once in college, I quickly realized that scientists were real people, accessible to me as mentors. With the opportunity to do research and meet scientists, I was able to visualize myself pursuing a lifelong career in the neuroscience. I do sometimes wonder, had I met a scientist earlier in my life or learned their story, especially a female scientist, would I had have felt less imposter syndrome and possibly been more confident in pursuing my goals?

During graduate school, I worked hard to increase the visibility of scientists to young students in low income neighborhoods in New York. Because of my experience, I was very aware that something as simple as meeting a scientist, especially a female scientist, could make a child visualize a future that may have seemed impossible before. At Columbia University I was the president of the Columbia Neuroscience Outreach ([CUNO](#)), a student lead organization that brings scientists and their experiences and knowledge to schools and to the community. Every year we visited dozens of classrooms and not only taught neuroscience lessons, but also showed the students that scientists come from a diversity of backgrounds.

Although exposing girls to STEM is an important first step, there exist barriers further in a woman's scientific career that also need to be addressed. Supporting the women who choose careers in science is equally important. This is a lesson I learned as a postdoctoral fellow. While organizing a seminar series at my institution, I noticed that the potential speakers suggested by fellow trainees were exclusively male. When I tried to fix the issue, I realized that my peers and I struggled to suggest female neuroscientists. This was troubling for me. In neuroscience departments, women make up half of the graduate students, but only 30% of tenure-track faculty¹. Similarly, women in STEM don't get recognized for their research as much as their male counterparts. They receive less than 30% of science prizes for their research and on average those prizes are worth less money than prizes given to men². My experience organizing the seminar speakers and learning these statistics ignited me to take action. I decided to attack these inequalities by increasing the visibility of women in neuroscience and highlighting their contributions.

In 2019, I founded a project called Stories of Women in Neuroscience (WiN; www.storiesofwin.org), in which we interview female neuroscientists and publish profiles about their scientific trajectory and their contributions to the field of neuroscience. Through these interviews, we aim to highlights their scientific discoveries through their career stories and also to inspire younger generations. We also hope that our website can serve as a repository for neuroscientists to find female neuroscientist to invite to their events, such as that seminar series I put together as a postdoc. Stories of WiN is comprised of a global team who interview women and write profiles in San Diego, New York, and Oxford. Through L'Oréal's fellowship I hope to continue to grow this project by purchasing materials that will help us expand our project and interview female neuroscientists in other parts of the world.

Through Stories of WiN, I have been able to connect with women in science in a deeper way. I used to only admire women scientist from afar, but by documenting their stories I have identified with many of their challenges. Every interview leaves me inspired, empowered, and energized to continue making a change and also to continue working hard in my career knowing that my story is necessary to achieve a more diverse and inclusive academic community. Through this project, I have learned that stories are powerful, they can connect us, empower us, and inspire us. With the L'Oréal USA Women in Science fellowship I hope to document more stories of women neuroscientist to help other women feel empowered and inspired.

References:

1. Survey from the Society of Neuroscience <https://www.sfn.org/nqmf>
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