

# Cognitive Neuroscience

## Newsletter

June 15, 2020

Volume 1, Number 2

WELCOME  
TO THE M.S. PROGRAM IN  
COGNITIVE NEUROSCIENCE

Winter/Spring 2020

Second Year Students

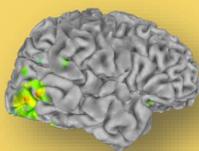
First Year Students

Faculty

Events

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### WELCOME FROM THE DIRECTOR

Welcome to the second edition of the M.S. Program in Cognitive Neuroscience Newsletter. This spring 2020 semester brought each and everyone one of us many difficulties and challenges caused by the unforeseen and devastating COVID-19 pandemic. Several students were debilitated by infections from the novel coronavirus, we had to change our daily routines, adjust to distance learning, work remotely, as well as adapt to social distancing

regulations that brought student and faculty research to a grinding halt. Despite these difficult and uncertain times, our faculty, students, and staff have demonstrated an impressive level of resilience and have achieved many important milestones. We'd like to take the opportunity to congratulate them by highlighting faculty and student research, recent grants, publications, events, and more.

Perseverance and tenacity have paid off for a number of our students. Eva Santucci and Jonathan LoVoi successfully completed all course requirements and their master's theses, becoming the first graduates of this program at the end of the fall 2019 semester. Moreover, despite the sudden shutdown, Andrea Benavides, Allison Brasch, Arielle Klopsis, and Katlyn Schroder have successfully deposited their theses this spring 2020 semester. Please join me in congratulating them!

While most of the remaining inaugural class will adapt their data collection protocols and submit their theses to graduate later this calendar year, the current first-year students successfully embraced the program's rigorous coursework with vitality, intellect, and determination, despite the challenges brought on by the shift to distance learning. Impressively, nearly all of the first-year students have plans in place to move forward with their research.

The M.S. Cognitive Neuroscience faculty continue to guide and support our students. Their desire and enthusiasm to be involved in workshops, admissions, and events lend to a dynamic faculty-student relationship. Bringing their expertise in diverse areas of cognitive neuroscience, our faculty serve as ardent researchers, teachers, and mentors.

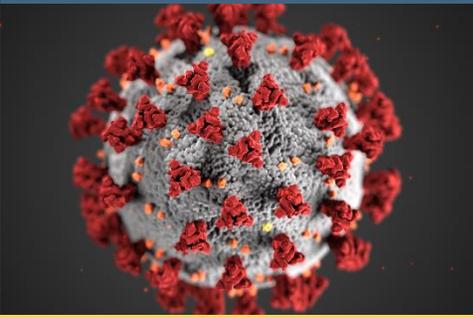
This newsletter will be issued once per semester. If you would like to have your publications, grants, awards and other accomplishments included in future newsletters, please respond to the invitation for submissions that will come from our office or visit our [website](#). We encourage you to participate, as it will give way to exciting and successful newsletters to share with current and prospective students.

Thank you and stay safe and healthy!



## The Fifty-Sixth Annual Commencement

[The Fifty-Sixth Annual Commencement](#) has been postponed. This postponement will not impact diplomas.



[The Graduate Center Coronavirus Guidance And Updates](#)

[CUNY Coronavirus Updates](#)

[Additional Resources Highlighted On Our Twitter](#)



## Sonia Bernal joins BrainBody as an Intern

Sonia looks forward to her internship at BrainBody this Spring 2020. BrainBody, founded by NYU Neuroscience Professor, Dr. Wendy Suzuki, is the first app-like platform to utilize neuroscience insights to help individuals become aware of what a single bout of exercise can do for their cognitive function. There is a growing body of research looking at the impact of a single workout on the brain, but exactly what type and duration of exercise is needed for a noticeable cognitive enhancement is not clear. Sonia will be joining the pilot study with the BrainBody platform at a senior living center, where there is great interest in not only enhancing cognitive health, but also protecting it from age-related degeneration. Sonia will be administering pre- and post- exercise assessments to clients via the BrainBody platform, which utilizes well-validated cognitive tasks that assess attention and focus, as well as a mood questionnaire. After each post-workout assessment, there is an individualized report that helps the client keep track which types of workouts impact their cognitive health the most. "I am excited to be a part of the BrainBody mission and to be here in their early stages, where there is a great need for initiative and creativity to help shape the BrainBody app into the best version it can be before commercial launch. What I like the most about being a part of this group is bringing neuroscience to others outside of the field and helping them use this knowledge for their unique needs."

## Katlyn Schroder: Teaching while in the M.S. in Cognitive Neuroscience program

During my fourth semester in the M.S. in Cognitive Neuroscience program, I began teaching an undergraduate Cognitive Psychology course at Baruch College. This is an exciting opportunity for me because I am able to share knowledge that I have acquired with the students who are taking my class. Teaching the course is also a great learning experience, as I continue to improve my public speaking ability, my ability to convey information to others, and my confidence when explaining topics within my field. These are all very important, transferable skills that would be beneficial in just about any career, including research. Teaching part-time while being a student in the M.S. in Cognitive Neuroscience program entails a heavy workload, so it was necessary for me to learn how to manage my time. That being said, it is an excellent opportunity and I would strongly encourage others to teach, even if not in a classroom setting, because the experience you gain from doing so is invaluable.



**The M.S. Program in Cognitive Neuroscience thanks all first responders, doctors, nurses, grocery store workers, and many others who have risked their lives to help us during these difficult times.**

## M.S. Program in Cognitive Neuroscience

A Smart Move.

Prepare for doctoral studies and careers in health, high tech, and more.



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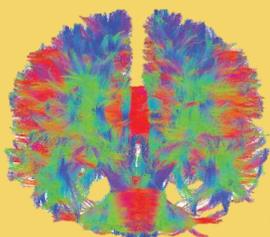
### CONTACT US

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## Cassandra Engstrom Reflects on Her First Semester in the M.S. Program in Cognitive Neuroscience

As someone entering the field of Cognitive Neuroscience with no prior training in neuroscience, biology, or psychology, this program has been an intense but stimulating introduction to a wealth of knowledge drawing from the canon as well as from hyper-current pioneering research. While it's certainly possible to allow such a fertile and still burgeoning field to overwhelm whatever direction one set out to take, I've found it rather empowering to define one's own niche definitively, claiming responsibility for the rigorous studies that will draw one closer to contributing to it. Beyond the academic dimension of this program, I am delighted to be surrounded by colleagues from distinctly different backgrounds, with distinctly different personalities and goals. A great merit of coalescing within a brick and mortar learning institution is enjoying the social synergy generated between such vibrant, passionate individuals. Engaging in true critical thought, which thrives off the serious group discourse like that conferred by my cohort, has helped me gain communicative integrity. It has not been a challenge to be absolutely interested in the subject matter this program has exposed me to. The challenge, rather, has come in focally integrating what I have learned to shape what I want to do. I am grateful to be paired with two mentors who have encouraged me to select a research hypothesis I am thrilled to investigate and provided me with the resources and guidance to design a methodologically sound experiment I look forward to running this summer.



## Christian Martinez: Good Surprises

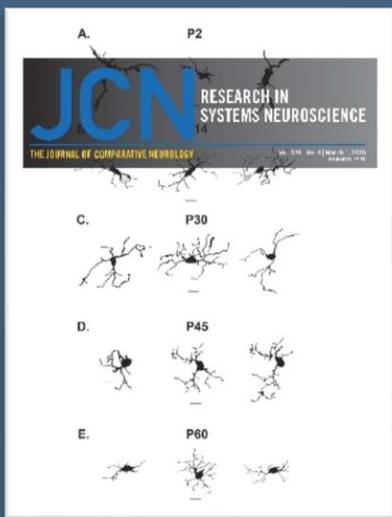


Truth be told, not many people like statistics. It's one of those topics you tell your parents at the dinner table and they just look with faces of utter confusion. However, Professor Wei Wang, in tandem with Lau Koenig, changed the game. They made it fun, interesting, and inspired me to learn even more. After class on Wednesdays, I would follow Dr. Wang straight to his office to practice R using my own personal data. And now? Well, now I have the

amazing opportunity working with Dr. Wang in his lab. Using Qualtrics, we have been working on surveys that are focused on workplace satisfaction. We have now purchased the fourth edition of the Wechsler Adult Intelligence Scale, have had formal training using Tobii Pro Lab eye tracker, and have been approved by the IRB. Everything is falling into place. If you would have told me that I would be working with my statistics professor voluntarily, I maybe would have disagreed with you, but that's the best part about school; you get to take classes, try new things, and figure out what you really enjoy. I am forever grateful of this connection The Graduate Center has helped facilitate. With pairing up with Professor Wang and the other opportunities the GC has provided me, my time as a graduate student has really been priceless.



**Dr. Tony Ro**, along with Drs. Patrik Vuilleumier and Janet Bultitude, co-edited a special issue of the journal *Cortex* in honor of Professor Robert Rafal. The cover image is from “Single Serving”, one of a series of paintings by New York based artist Jessica Anne Schwartz and photographed by Chello Cruz.



**Dr. Joshua Brumberg's**, Dean for the Sciences, recent publication with John Kalambogiasa, Chia-Chien Chen, Safraz, Khan, Titus Son, Racheli Werberger, Carolyn Headlam, and Cindy Lim, was chosen as the cover image for *The Journal of Comparative Neurology*, Volume 528, Issue 4.

## Collaborative Research Award: Dr. Tatiana Emmanouil and Director Tony Ro Receive a \$498,807 NSF Grant

In collaboration with Christos Papadimitriou (Columbia University) and Santosh Vempala (Georgia Tech), Dr. Tatiana Emmanouil (Principal Investigator) and Director Tony Ro (Co-Principal Investigator) seek to understand the role that assemblies, or large and highly interconnected sets of neurons, play in brain computation. Through machine learning, mathematical modeling and analysis techniques, functional magnetic resonance imaging (fMRI) experiments, they test the hypothesis that assemblies are the “engine of brain computation.” To facilitate our understanding of how the brain functions, the National Science Foundation awarded them a \$498,807 grant.



## M.S. Program in Cognitive Neuroscience Faculty Members' 2020 Publications

### Dr. Marom Bikson

Bikson, M., Hanlon, C. A., Woods, A. J., Gillick, B. T., Charvet, L., Lamm, C., Madeo, G., Holczer, A., Almeida, J., Antal, A., Ay, M. R., Baeken, C., Blumberger, D. M., Campanella, S., Camprodon, J. A., Christiansen, L., Loo, C., Crinion, J. T., Fitzgerald, P., Gallimberti, L., ... Ekhtiari, H. (2020). Guidelines for TMS/tES clinical services and research through the COVID-19 pandemic. *Brain stimulation*, 13(4), 1124–1149.

### Dr. Richard Bodnar

Bodnar, R.J. (2020). Endogenous opiates and behavior: 2017. *Peptides*, 124, 170223.

### Dr. Joshua Brumberg

Kalambogias, J., Chen, C. C., Khan, S., Son, T., Werberger, R., Headlam, C., Lin, C., Brumberg, J. C. (2020). Development and sensory experience dependent regulation of microglia in barrel cortex. *The Journal of Comparative Neurology*, 528(4), 559-573.

### Dr. Klara Marton

Marton, K., & Scheuer, J. (2020). The relationship between proceduralization and cognitive control. *Journal of communication disorders*, 83, 105941. <https://doi.org/10.1016/j.jcomdis.2019.105941>

### Dr. Tony Ro

Webster, K., Ro, T. (2020). Visual Modulation of Resting State  $\alpha$  Oscillations. *eNeuro*, 7(1).

## Research Assistantships Spring 2020



In Spring 2020, our program issued [Research Assistantship Applications](#). Research Assistants perform a range of research-related duties and work effectively under the supervision of a faculty mentor and/or as part of a research team. The first Research Assistantship recipients are:

- Nancy DeLa Torre
- Kunhee Lee
- Daniela Echeverria
- Christian Martinez
- Megan McVeety
- Kamyar Moud
- Euijin Son

## Class of 2020

In 2020, six students successfully completed their thesis and officially graduated from the M.S. Program in Cognitive Neuroscience:

- Andrea Benavides
- Allison Brasch
- Arielle Klopsis
- Jonathan LoVoi
- Eva Santucci
- Katlyn Schroder

## More Program Events

- Applying to Ph.D. Programs, Hosted by Director Tony Ro
- Writing a Thesis Workshop, Hosted by Professor Valerie Shafer
- IRB/HRPP Workshop, Hosted by Rebecca Banchik, the Director of The Graduate Center's Human Research Protection Program
- Finding Your Path: The Career and Job Search Process for Cognitive Neuroscience Students, Hosted by Jennifer S. Furlong, the Director of the Office of Career Planning and Professional Development

Ro, T., Vuilleumier, P., Bultitude, J. (2020). Editorial - Robert Rafal. *Cortex*, 122, 1-5.

Ro, T., Beauchamp M. (2020). Ipsilesional perceptual deficits in hemispatial neglect: Case reports. *Cortex*, 122, 277-287.

## Dr. Peter Serrano

Avila, J. A., Kiprowska, M., Jean-Louis, T., Rockwell, P., Figueiredo-Pereira, M. E., & Serrano, P. A. (2020). PACAP27 mitigates an age-dependent hippocampal vulnerability to PGJ2-induced spatial learning deficits and neuroinflammation in mice. *Brain and behavior*, 10(1), e01465. <https://doi.org/10.1002/brb3.1465>

## Current Students and Faculty Convene at the End of the Semester Event

First and second year students and M.S. Program in Cognitive Neuroscience faculty convened in the M.S. Program in Cognitive Neuroscience End of Semester Event on Thursday, December 12, 2019. This **student-coordinated event** offered M.S. students an evening of celebration with fellow students and faculty as they reflected on the academic accomplishments of the year, shared their works in progress, and cheered to upcoming opportunities. We thank M.S. students Sonia Bernal (2<sup>nd</sup> year), Gulnaz Kudoiarova (1<sup>st</sup> year), and Christian Martinez (1<sup>st</sup> year) for orchestrating this highly successful event.



*M.S. Program in Cognitive Neuroscience End of the Semester Event*

## M.S. Program in Cognitive Neuroscience Faculty Mentor Workshop



On November 14, 2019, the M.S. Program in Cognitive Neuroscience hosted its inaugural Faculty Mentor Workshop, in which Director [Tony Ro](#), Associate Director [Peter Serrano](#), and Professor [Jin Fan](#) answered current students' questions about the process of finding and working with a faculty mentor. Students actively asked questions about faculty mentor expectations and lab work, and they reported that they found this workshop extremely helpful in their endeavors to secure a mentor. We look forward to hosting another workshop in the near future for incoming students next year! Thank you, Dr. Ro, Dr. Serrano, and Dr. Fan for your ongoing contribution, support, and dedication to this program!