

**Marymount Manhattan College Student
Research/Internships/Independent Studies 2010-2019**

Last updated 10/24/2019

All offsite research experiences listed, were actively pursued and coordinated by Deirtra-Hunter-Romagnoli to provide multiple opportunities for MMC students to work in renown academic research laboratories or professional clinical institutions across New York City. Research internship opportunities for students included working with stem cells, utilizing human and animal experimental protocols to learn more about neurological diseases like multiple sclerosis, alzheimers, addiction and how social hierarchies can influence psychological conditions.

Emphasis was placed on neuroscience laboratories however when alternate laboratory opportunities presented themselves I was easily able to place MMC students from different disciplines. More recently, a growing number of students outside of the Natural Sciences Division have taken part in these research internship opportunities. Specifically, there has been an increase in the number of Theatre, Dance and Business students declaring a neuroscience minor and taking advantage of new research opportunities including options recently available at the MMC Music, Mind and Brain Behavioral Neuroscience Laboratory.

Most research experiences culminated with students presenting final results at a professional research forum and some students also have published abstracts.

All onsite research experiences and Independent study projects were supervised or co-supervised by Deirtra Hunter-Romagnoli.

The following descriptions of coordinated research experiences are listed by academic year and a brief summary of the laboratory focus is included.

When available current updates of student's current professional trajectory/status are included.

Academic Year 2018-2019

Icahn School of Medicine at Mount Sinai Hospital: Neuroscience Department

1. Martine Faustin (Class of 2019)

Worked in the Lab of Molecular Psychiatry with Dr. Nestler studying the neurobiological mechanisms of drug addiction. Using animal models, the impact of different cocaine regimens on dendritic spines of male and female subjects is analyzed. Immunostaining and confocal imaging techniques are applied.

2. Meaghan Janis (Class of 2021)

Worked in the Lab of Perceptual & Cognitive Development with Dr. Morishita. With animal models, the lab hopes to identify the mechanisms of developmental critical periods to establish perception and cognition relevant to neuro-developmental and psychiatric disorders. Molecular, anatomical, imaging, and electrophysiological methodologies are applied.

3. Gabriela Simonghini

Offered a position in the Lab of Perceptual & Cognitive Development with Dr. Morishita. With animal models, the lab hopes to identify the mechanisms of developmental critical periods to establish perception and cognition relevant to neuro-developmental and psychiatric disorders. Molecular, anatomical, imaging, and electrophysiological methodologies are applied.

4. Samantha ODonoghue (Class of 2021)

Offered a position in the Lab of Perceptual & Cognitive Development with Dr. Morishita. With animal models, the lab hopes to identify the mechanisms of developmental critical periods to establish perception and

cognition relevant to neuro-developmental and psychiatric disorders. Molecular, anatomical, imaging, and electrophysiological methodologies are applied.

**Columbia University Medical Center
Irving Cancer Research Center**

5. Stephanie Constant (Class of 2019)

Worked at the Irving Cancer Research Center in the lab of Dr. Mendelsohn. The lab looks for urothelial progenitors important for formation, homeostasis and regeneration of the urothelium, and identification of urothelial cell types that give rise to bladder cancers. Applied skills include inSitu hybridization, gel electrophoresis and Polymerase Chain Reaction (PCR).

**McLean Hospital /Harvard University
American Board of Sport Psychology**

6.Nada Rbil (Class of 2019)

Worked with Dr. Carlstedt at the American Board of Sport Psychology (ABSP) . The ABSP works to advance practice, education and training standards in the field of applied sport psychology. Training is also provided in research methods and procedures in the area of sport psychology, biomarker and technology guided applied sport psychology, exercise psychology and integrative health.

Academic Year 2016-2017

**Icahn School of Medicine at Mount Sinai Hospital:
Neuroscience Department**

1. Keaven Caro (Class Of 2018)

After interning in the Lab of Developmental Brain Plasticity and Cognition (summer and fall 2016) Keaven received an offer and accepted a paid position job starting May 2017 as a research assistant in the Dr. Morishita's

Laboratory. He is currently (Spring 2018) applying to MD/Ph.D programs in neuroscience.

Academic Year 2015-2016

Icahn School of Medicine at Mount Sinai Hospital: Neuroscience Department

1. Keaven Caro (Class Of 2018)

After interning in the Lab of Developmental Brain Plasticity and Cognition (summer and fall 2016) Keaven received and accepted a paying job starting May 2017 as a research assistant in the Dr. Morishita's Laboratory.

2. Kathryn McCabe (Class of 2019)

Worked in the Scott Russo Laboratory of Neural and Immune Mechanisms of Psychiatric Illness with Dr. Hossein Aleyasin. The lab examines neural and immunological mechanisms of neuropsychiatric disorders with the use of transgenic mice, immune cell transplantation, optogenetics, electrophysiology, viral mediated gene transfer, behavioral models and molecular methods. **Kathryn McCabe and MMC is recognized on a current peer review entitled [Cell-type-specific role of \$\Delta\$ FosB in nucleus accumbens in modulating inter-male aggression](#) J Neurosci. 2018 Jun 11. pii: 0296-18. doi: 10.1523/JNEUROSCI.0296-18.2018.*

3. Kelton Ober (Class of 2019)

Worked in the Scott Russo Laboratory of Neural and Immune Mechanisms of Psychiatric Illness with Dr. Hossein Aleyasin. The lab examines neural and immunological mechanisms of neuropsychiatric disorders with the use of transgenic mice, immune cell transplantation, Optogenetics, electrophysiology, viral mediated gene transfer, behavioral models and molecular methods.

Summer and Fall 2016

2. Gabriella Perez (Class of 2016) *Currently applying to Nursing School*

Worked in Dr. Yasmin Hurd's Molecular neuropharmacology laboratory. Work here focuses on the neurobiology of addiction and related psychiatric disorders.

3. Keaven Caro (Class of 2017)

Working in the Lab of Developmental Brain Plasticity and Cognition with Dr. Morishita on behavioral studies using genetically modified mice to identify possible mutations responsible for developmental delays in the brain. The motivation for this work is to help in developing new treatments for neurodevelopmental disorders such as autism and ADHD.

*Students working in this laboratory experience the entire empirical process from question, hypothesis, data acquisition, data analysis to behavioral testing. Students get hands-on mentoring from an assigned postdoctoral fellow and the principal investigator, Dr. Morishita (*A detailed description is included because Dr. Morishita has provided multiple MMC students professional research experiences).*

4. Taylor Morgan (Class of 2017)

Working in the Lab of Developmental Brain Plasticity and Cognition with Dr. Morishita on behavioral studies, using genetically modified mice to identify possible mutations responsible for developmental delays in the brain. The motivation for this work is to help in developing new treatments for neurodevelopmental disorders such as autism and ADHD.

Academic Year 2015-2016

5. Beatrice Morocho (Class of 2016)

Working in the Lab of Developmental Brain Plasticity and Cognition with Dr. Morishita on behavioral studies, using genetically modified mice to identify possible mutations responsible for developmental delays in the brain. The motivation for this work is to help in developing new treatments for neurodevelopmental disorders such as autism and ADHD.

6. Catherine Shefrin (Class of 2016) *Attending graduate school for an advanced degree in Speech Pathology.*

Worked in the Lab of Developmental Brain Plasticity and Cognition with Dr. Morishita on behavioral studies, using genetically modified mice to identify possible mutations responsible for developmental delays in the brain. The motivation for this work is to help in developing new treatments for neurodevelopmental disorders such as autism and ADHD.

7. Catherine Miller (Class of 2016) *Currently applying to Medical School*
Worked in the Lab of Developmental Brain Plasticity and Cognition with Dr. Morishita on behavioral studies, using genetically modified mice to identify possible mutations responsible for developmental delays in the brain. The motivation for this work is to help in developing new treatments for neurodevelopmental disorders such as autism and ADHD.

8. Lorianna Swain (Class of 2016)
Worked in Dr. Morishita Lab of Developmental Brain Plasticity and Cognition conducting and assisting Neuroscience Research using a mouse model to understand the neural circuit mechanism of attention behavior. Behavior is studied using the 5-Choice Serial Reaction Time Task (5CSRRT) protocol and Immunohistochemistry (IHC) staining to analyze specific markers in the dACC.

9. Anna Keyser (Class of 2016) *Currently applying to Graduate School for Clinical Psychology*
Worked in the Lab of Developmental Brain Plasticity and Cognition with Dr. Morishita on behavioral studies, using genetically modified mice to identify possible mutations responsible for developmental delays in the brain. The motivation for this work is to help in developing new treatments for neurodevelopmental disorders such as autism and ADHD.

**Cornell Medical School, Multiple Sclerosis Research Center
(Neurology)**

10. Patricia Mirafior (Class of 2017) *Patricia was offered and accepted a paid position as a research assistant in Dr. Vartanian's lab described below.*

Currently working with Dr. Vartanian laboratory focuses on identifying possible cause of multiple sclerosis. Patricia works on an ongoing study that utilizes PCR genotyping to detect for toxin genes in food samples. Positive identification of the prevalence of epsilon toxin in commercial food will aid in identifying a possible environmental variable linked to multiple sclerosis

** Presented findings at Annual Multiple Sclerosis Symposium Sept 27, 2015 and published abstract.*

Academic Year 2014-2015

**Icahn School of Medicine at Mount Sinai Hospital:
Neuroscience Department**

11. Anuaries De Leon (Class of 2015) HEOP graduate. *Currently attending Hunter College School of Social Work Master's Program.*

Worked with Dr. Umpierre (Ph.D. & LCSW) on developing website content for community dissemination of health information and resources. She also worked on the designing and implementation of a qualitative pilot study. The aim of the pilot study was to explore whether the community population being targeted is receptive to receiving health information through a mobile web app.

12. Kristina Cechova (Class of 2014) *Declined offer for a paid Research Lab Supervisor position due to time needed to prepare medical school applications and exam (MCAT).*

Research assistant working with Dr. Elizabeth Lucas in the Clem laboratory of Emotional Brain Plasticity at the Hess Center, Mount Sinai Hospital. Work here examines sex differences in the morphology of interneurons in the amygdala fear circuit.

**Presented at Dr. Clems weekly laboratory research meetings.*

13. Saad Al Nassar (Class of 2016)

Worked in Dr. Morishita's Lab of Developmental Brain Plasticity and Cognition. Research in this lab focuses on developmental brain plasticity and cognition using animal model (mice).

**Presented at Dr. Hiro's laboratory meeting*

14. Zane Younger (Class of 2016) *Currently waiting for responses from Medical school applications*

Worked in Dr. Morishita's Lab of Developmental Brain Plasticity and Cognition. Research focused on sociality experiments with genetically modified mice, studying hierarchy linearity in mice with viral expression of DREADD proteins.

**Competitive Research Award Internships
(Stipend Supplemented)**

Summer 2015

15. Daisy Gallegos (Class of 2017)

Nine week Moussa Kahen Internship Program;

Mount Sinai's Alzheimer Disease Research Center (ADRC)

Research centered around a project that made comparisons between brain tissue donation samples of Alzheimer's patients in the US and UK.

**Presented findings at final ADRC Research Symposium at Mount Sinai Hospital and published abstract.*

16. Patricia Mirafior (Class of 2017) Currently continuing lab experience through Fall 2015 Internship in Multiple Sclerosis; Cornell Medical School, Multiple Sclerosis Research Center (Neurology) Laboratory of Dr. Tim

Vartanian exploring infectious bacteria as a possible cause of Multiple Sclerosis.

**Presented findings at Annual Multiple Sclerosis Symposium and published abstract.*

Academic Year 2013-2014

Icahn School of Medicine at Mount Sinai Hospital: Neuroscience Department

17. Anna Patruno- (Class of 2014) *Currently employed as a research technician at Sloan Kettering and waiting for Medical School acceptance.*

Worked with Dr. Kristen Brennand whose work focuses on using induced pluripotent stem cells to study schizophrenia. Specifically, Dr. Brennand obtains skin samples from schizophrenic children and adults as well as healthy controls. These skin cells are then reprogrammed into stem cells and subsequently directed to become neurons. The hope is by identifying differences between healthy and diseased neurons, we will soon be able to screen for new drugs with which to reverse the cellular defects present in schizophrenia.

**Presented at:*

- *Annual Eastern Psychological Association Conference, Boston, MA.*
- *MMC 37th Honor's Day Colloquium, Marymount Manhattan College*
- *Fourteenth Annual Division of the Sciences Research Conference, New York, N.Y.*
- *Dr. Brennand's lab research meeting*
- *Two published abstract.*

18. Michelle Umpierrez (Class of 2015) *Currently attending Biomedical Masters Program; Kings College, London.*

Worked with Dr. James Gregory using algae to identify targets to prevent food allergies. His work centers on microbiology research on cell division

with an emphasis in genetics, cell biology, and an expertise in cutting edge microscopy.

Publication: **Immunotherapy using algal-produced Ara h 1 core domain suppresses peanut allergy in mice.**

Gregory JA, Shepley-McTaggart A, **Umpierrez M**, Hurlburt BK, Maleki SJ, Sampson HA, Mayfield SP, Berin MC

Plant Biotechnol J. 2016 Jul;14(7):1541-50 Epub 2016 Jan 23.

**Presented at:*

- *MMC Fifteenth Annual Division of the Sciences Research Conference*
- *MMC Fourteenth Annual Division of the Sciences Research Conference*

19. Tess Verneuil (Class of 2014) Currently applying for a Ph.D Program in Neuroscience (Spring 2018). *Declined offers from Harvard, Columbia University and UCL to accept Research Associate, level 2 position at UCLA (2017). Completed Master's Program in Neuroscience (2016); Kings College, London;*

Worked in Dr. Morishita's lab, which focuses on developmental brain plasticity and cognition using animal model (mice). Students experience the whole process of a research from data acquisition and analysis to behavioral testing for example, touchscreen testing of cognitive function. Students get hands-on mentoring from an assigned postdoctoral fellow and the principal Investigator, Dr. Morishita.

**Presented at Dr. Hiro's summer research lab meeting at Mount Sinai.*

20. Gabriela Perez (Class of 2016)

Worked with Dr. Yasmin Hurd in the departments of Psychiatry, Pharmacology and Systems Therapeutics and Neuroscience at Mount Sinai Hospital School of Medicine. Dr. Hurds multidisciplinary research lab investigates the neurobiology underlying addiction disorders and related psychiatric illnesses.

**Presented at Dr. Hurd's summer research meeting.*

21. Ashley O'Brien (Class of 2014) *Paid Internship Currently employed as Care Coordinator at the Puerto Rican Family Institute*

Worked with Dr. Vanna Zachariou in the Department of Neuroscience and Pharmacology and Systems Therapeutics at the Mount Sinai School of Medicine. This research lab focuses on understanding chronic pain related depression and the study of the mechanism(s) via which antidepressant drugs alleviate pain. There were also projects on drug addiction, and the way chronic pain influences addiction.

22. Iris Platt (Class of 2014) *Completing Master's Program in Neuroscience and Education, Columbia University Teachers College*

Worked in Dr. Morishita's lab, which focuses on developmental brain plasticity and cognition using animal model (mice).

* Presented findings at Dr. Hiro's monthly seminar.

23. Aleksandra Tercjak (Class of 2015) *Preparing for physician's assistants advanced degree.*

Worked with Dr. Kristen Brennand, work focused on using induced pluripotent stem cells to study schizophrenia.

New York Neurogenic Speech Language Pathology Clinic

24. Sophia Gutchinov (Class of 2017)

Worked with Marissa Barrera (MS, MPhil, MSCS, CCC-SLP); an MMC alum) at the *New York Neurogenic Speech Language Pathology Clinic*.

Work here focuses on the role that exercises plays on fatigue and language processing in individuals with Multiple Sclerosis.

Academic Year 2012-2013

**Icahn School of Medicine at Mount Sinai Hospital:
Neuroscience Department**

28. Rasheda Majumder (Class of 2013) *Accepted into Medical School, started fall 2015)*

Worked with Dr. Kristen Brennand whose work focuses on using induced pluripotent stem cells to study schizophrenia. Specifically, Dr. Brennand obtains skin samples from schizophrenic children and adults as well as healthy controls. These skin cells are then reprogrammed into stem cells and subsequently directed to become neurons.

29. Megan McGee (Class of 2013)

Worked with Dr. Kristen Brennand whose work focuses on using induced pluripotent stem cells to study schizophrenia.

30. Emma Kos-Davis (Class of 2013)

Worked in Dr. Morishito Hiro's lab that focuses on developmental brain plasticity and cognition using animal model (mice).

31. Nicole Margallo (Class of 2014) *Currently working as a Dance movement therapist in NYC (2018). Nicole completed "Dance/Movement Therapy Masters Program" with a concentration in neurological disorders at Pratt Institute(2016).*

Worked in Dr. Matthew Shapiro's examining how the hippocampus, prefrontal cortex, and other brain areas contribute to memory in experimental animals, mostly rats, and how mechanisms of neuronal plasticity within these structures may underlie memory functions. Interns learn how to qualify electrophysiological recordings from behaving rats in order to study learning and memory. Additionally interns learn and work on a variety of tasks including handling of the animals, scoring of behavioral data, assisting with histology and imaging brain slices and also helping to build our implants for making the electrophysiological recordings.

*Presented at:

- *MMC fourteenth Annual Division of the Sciences Research Conference,*

32. Julie Groth (Class of 2014)

Worked in Dr. Matthew Shapiro's lab, which focuses on, how the hippocampus, prefrontal cortex, and other brain areas contribute to memory in experimental animals, mostly rats, and how mechanisms of neuronal plasticity within these structures may underlie memory functions. Interns learn and work on a variety of tasks including handling of the animals, scoring of behavioral data, assisting with histology and imaging brain slices and also helping to build our implants for making the electrophysiological recordings.

Presented at:

- *Annual Division of the Sciences Research Conference, Marymount Manhattan College New York.*

33. Petra Strokova (Class of 2014)

Worked with Drs. Linda Solomon and Deitra Hunter-Romagnoli on study examining psychophysiological responses related to gender and emotion at MMC using psychophysiological equipment.

*Presented at:

- *36th Annual Honor's Day Colloquium, Marymount Manhattan College*
- *41st Annual Hunter College Psychology Convention New York*
- *Pace University Psychology Conference, Pace University, New York*
- *MMC Thirteenth Annual Division of the Sciences Research Conference*

Academic Year 2011-2012

**New York Presbyterian Morgan Stanley Children's Hospital at
Columbia University Medical Center**

34. Brooke McNally (Class of 2013)

Worked with Dr. Martha Welch. This lab focused on identifying distinct variables associated with long-term health improvement of premature babies using various intervention approaches. These methods were being assessed for their efficacy in ensuring adequate attachment and development between mother and baby during their prolonged hospitalization in the Neonatal Intensive Care Unit.

Columbia University, Neuroscience Department

35. Emma Kos-Davis (Class of 2013)

Worked with Dr. Frances Champagne on maternal influence/attention in a rat model, on offspring development. Students learned how use an animal model and a variety of biochemical assays to answer questions pertaining to the long-term consequences of variation in maternal care during the postpartum period.

36. Alexandria Langhier (Class of 2013)

Worked with Dr. Frances Champagne on maternal influence/attention in a rat model on offspring development.

Museum of Motherhood, New York, N.Y.

37.Thani Lam (Class of 2012) - Internship and Independent study

Worked with the Art Director, Joy Rose and examined cultural differences and challenges associated with motherhood. An emphasis was placed on expanding exhibits, developing new social networking and marketing tools in an effort reach diverse populations in the community and the other four boroughs.

Academic Year 2010-2011

New York State Psychiatric Institute at Columbia University Medical Center

38. Elizabeth Doyle (Class of 2011)

Worked in Dr. Alla Landa's lab with human participants focusing on early stress experiences and their relationship to somatoform disorders. Intern's focus on using fMRI scans of the anterior cingulate cortex in an attempt to analyze the origin of somatoform disorders and social rejection. There are also abundant opportunities to observe doctor patient interactions.

39. Cesar Cocco (Class of 2012) *Completing Master's Program in Journalism Buffalo*

Worked with Dr. Holly Moore on early interventions for schizophrenia. The Moore laboratory uses rodent preparations to model potential pathogenic mechanisms and treatment targets in schizophrenia and affective disorders with a special interest in symptoms associated with adolescent schizophrenia onset. The current internship includes familiarization of neuroscientific brain research. Use quantitative polymerase chain reactions (qPCR) techniques, attending lab meetings, assisting graduate and post-doctoral research students while developing own research question.

