Ilona Golynker

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Expected graduation: May 2020

EDUCATION

Georgia State University, Atlanta, GA Bachelor of Science, Neuroscience *GPA*: 4.18

• Athletic scholarship

Academic honors:

- Georgia State University President's List Spring '17, Fall '17, Spring '18, Fall '18, Spring '19
- Georgia State Women's Tennis Panther All-Academic Team award season of 2017-2018

PROFESSIONAL EXPERIENCE

FORGER LAB, Neuroscience Institute, Georgia State University, Atlanta, GA

October 2017- Present
Research Assistant

- Honors thesis project "Effects of early-life inhibition of DNA methylation on calbindin cell number in the mouse brain". September 2018 Present.
- Focus: Currently investigating the role of epigenetics on the sexual differentiation of the mouse brain
- *Skills:* Perform intracerebroventricular injections in newborn mice, conduct immunohistochemical assays on brain tissue, implement histological analysis using the software *ImageJ*, collect and section brain tissue, acquire data using video microscopy and *Stereo-Investigator* software (*MicroBrightfield*), and perform Polymerase Chain Reaction (PCR) procedures

PIERCE LAB, Microbiology Department, Georgia State University, Atlanta, GA

January 2019- Present Research Assistant

- Focus: Currently characterizing the enzyme asparaginase from the bacteria Rhodococcus rhodochrous DAP 96622 as a treatment for human leukemia
- *Skills*: Perform protein purifications and asses enzyme asparaginase activity using processes such as lysis, sample centrifugation, dialysis, anion exchange chromatography, protein assays, and spectrophotometry

THE JOSEPH SEGOL NEUROSCIENCE CENTER, Sheba Medical Center, Ramat Gan, Israel June 2019- July 2019 Research Assistant

- Focus: Investigating mechanisms of recovery from traumatic brain injury in the mouse brain by looking at markers of neuroinflammation and damage of the blood-brain barrier
- *Skills:* Perform behavioral tests (Barnes maze, Neurological Severity Score (NSS)), conduct immunofluorescence procedures on mouse brain tissue

PEER-REVIEWED PUBLICATIONS

Cisternas, C.D., Cortes, L.R., Golynker, I., Castillo-Ruiz, A., Forger, N.G. (2019). Neonatal inhibition of DNA methylation disrupts testosterone-dependent masculinization of neurochemical phenotype.
 Endocrinology (In Press). doi: 10.1210/endocr/bqz022

TALKS

 Golynker, I. (April 2019). Battle of the sexes - How testosterone affects brain development by modifying DNA. Presented at the *Honors College Three-Minute Thesis Pitch Competition*, Georgia State University.

POSTER PRESENTATIONS

- Cortes, L.R., Cisternas, C.D., **Golynker, I**., Castillo-Ruiz, A., & Forger, N.G. Effects of early-life knock-down of DNMTs and TETs on sex differences in cell type in the hypothalamus. Society for Neuroscience, Chicago IL, October 2019.
- Cortes, L.R., Cisternas, C.D., Golynker, I., & Forger, N.G. The impact of DNA methyltransferase inhibition on early-life masculinization of cell phenotype. Organization for the Study of Sex Differences, Washington DC, May 2019.
- Golynker, I., Cisternas, C. D., Cortes, L. R., & Forger, N. G. DNA methylation mediates the effects of testosterone on calbindin cell number in the mouse brain. National Undergraduate Research Conference, Kennesaw State University, Atlanta GA, April 2019.
- Cortes, L.R., Cisternas, C.D., **Golynker, I**., & Forger, N.G. Effects of neonatal testosterone and a DNA methyltransferase inhibitor on the sexual differentiation of cell phenotype in the mouse brain. Society for Neuroscience, San Diego CA, November 2018.
- Golynker, I., Cisternas, C. D., Cortes, L. R., & Forger, N. G. DNA methylation mediates sexual differentiation of calbindin cell number in the mouse brain. Georgia State Undergraduate Research Conference, Atlanta GA, April 2018.

MEMBERSHIPS

• Society for Neuroscience (SfN), 2019

RELEVANT COURSEWORK

Principles of Biology I&II (A+, A+); Molecular Cell Biology (A+); Principles of Chemistry I&II (A, A); Principles of Neuroscience I & II (A+, A+); Clinical Neuroscience (A+); Drugs and the Nervous System (A+); Honors Thesis Research (A+); Organic Chemistry I (A); Women Lead in Science (A+); Scientific Method in Neuroscience – (Critical Thinking and Writing) (A+).

COMMUNITY SERVICE

Volley Against Violence, Atlanta, GA

October 2017

Volunteer assistant coach

Worked with several groups of children ages 5 to 15, provided them with basic tennis skills, led a series
of technical drills, and gave them encouraging feedback

Universal Tennis Academy, Atlanta, GA

November 2017

Volunteer

- Assisted with coaching of 3 groups of young tennis players at the local tennis club, ages 10 to 15
- Advised and encouraged young tennis players to engage in sports by addressing questions and providing information from personal experience

SPORTS EXPERIENCE

• Tennis, Georgia State Women's Team

August 2016-December 2018

 Top 3 ranked in the Girls' Junior Ranking of The Israeli Tennis Association January 2011-December 2013

LANGUAGES

• English (full proficiency), Russian (full proficiency), Hebrew (mother tongue)

SKILLS

• Data & Statistical Analysis: Prism, DataView, ImageJ, Stereo-Investigator

- Public Speaking: Presented several research projects conducted in the laboratory in undergraduate conferences (GSURC, NUCR)
- Microsoft Office: Word, Excel, and PowerPoint

MILITARY SERVICE

ISRAELI DEFENSE FORCES (IDF)

April 2014- March 2016

Sergeant, with Honors

- Acquired a great set of leadership and interpersonal skills during my military service
- Trained for combat

RESEARCH INTERESTS

- Epigenetics
- CNS Disorders
- Neuroinflammation

- Sexual differentiation of the brain
- Gut-brain axis

Neuropharmacology