

Santiago Ferris

333 E 102nd St., Apt 402, New York, NY 10029 • 646-541-3034

ferrissantiago@gmail.com

fearghuis.win/papers/

Education

Williams College, Williamstown, MA

B.A. in Biology and English, June 2026. GPA 3.65.

Research Experience

Neural Development & Regeneration (BIOL 331), Independent Research Project **Spring 2026**

- Designed and performed an experiment to test Gamba et al.'s 2010 hypothesis that Wnt acts as an ESR-1 inhibitor in the development of the posterior lateral line in zebrafish
- Incubated live *cldnb:lynEGFP* transgenic zebrafish embryos with a 2×2 drug treatment of IWR-1 and fulvestrant (Wnt and ESR-1 inhibitors, respectively), measuring differences in pLL length through endpoint fluorescence imaging with Fiji at 42 hpf
- Analyzed with two-factor ANOVA in R, finding a significant interaction between the two drugs indicating that ESR-1 might be a Wnt repressor, contrary to the hypothesis

Enzyme Structure & Function (BIOL 419), Research Proposal **Spring 2026**

- Proposed an experimental, TALE-based treatment for type 1 diabetes: a large-LNP-delivered, insulin-transcript-gated methylation effector which preferentially accumulates in the pancreas

Loehlin Lab, Williams College - Genetics Research Assistant **Summer 2025**

- Performed, revised and taught a high-throughput enzyme assay procedure to measure *Adh* expression in *Drosophila* strains with different duplication architectures, testing whether distance between duplicates alone impacts expression level
- Built and analyzed a dataset of ~135 measurements across 9 strains and both sexes in R; the only strain with significantly high *Adh* expression was consistent with both possible explanations, as it had the shortest distance between the two copies, but was also missing a potential conserved regulatory region
- Designed and presented a poster with Harry Du communicating experimental design, results and conclusions to Williams College science faculty and fellows

Teaching and Leadership

Drury High School – Humanities and MSEF PBL Program Leader **Spring 2026**

- Designed and taught a project-based course for seven eighth graders with missing humanities credit and supported a student with his science fair project (third place)

Williams College Firefighter Association - Vice President and Volunteer Firefighter **Nov 2022 to Nov 2024**

- Led and organized weekly student trainings; on-call response to fires, motor vehicle accidents, and medical emergencies; certified in search and rescue, hose handling and SCBA use

Williams College Free University – Ethical Lockpicking Teacher **January 2024**

- Designed and taught a hands-on course on ethical lockpicking and the mechanics of security to 12 students

Skills

- Lab: spectrophotometric enzyme activity assays, *Drosophila* husbandry, interspecific crosses (*D. virilis* × *D. americana*) zebrafish embryo handling and drug treatment, fluorescence microscopy, image-based quantification
- Programming: R, Python, Java