

ANGELICA GALIANESE

amgalianese@gmail.com | [linkedin.com/in/agalianese](https://www.linkedin.com/in/agalianese) | github.com/agalianese | New York City

SKILLS

- *Languages:* R, Bash, JavaScript / Node.js, Python, MySQL, HTML / CSS
- *Data Types:* sc/snRNA-seq, RNA-seq, scATAC-seq; Fastq, Fasta, Bam, WGS, WES

EDUCATION

RUTGERS UNIVERSITY, NEW BRUNSWICK

September 2016 - January 2020

Bachelor of Arts in Genetics (Minor: Statistics, Certificate: Computational Genetics, Dean's List: Fall 2018, Fall 2019)

Rutgers School of Arts and Sciences. Douglass Women's Residential College (Bunting-Cobb LLC)

Relevant Courses: Effective Communications Skills in Genetics, Genetics of Compulsive Behaviors, Research in Genetics, Computational Genomics of Big Data, Computing and Graphics in Applied Statistics, Quantitative Biology and Bioinformatics

PROFESSIONAL EXPERIENCE

DATA ANALYST

November 2021 - Current

Columbia University Irving Medical Center - Rabadan Lab

- Assisted in identifying genomic alterations in acral lentiginous melanoma in South African patients, analyzing relationship between HLA homozygosity and clinical metadata. Investigated role of isoform expression on survivability in TCGA BRCA patients, calculated isoform ratio, then performed survival analysis.
- Detected viral gene expression within snRNA of organ transplant recipients as part of a comprehensive oncogenesis meta-analysis. Wrote bash and R code to extract viral reads from snRNA, BLAST, and map back to the cell of origin.
- Facilitated the smooth introduction, training, onboarding, and orientation of new team members from diverse international backgrounds who were entirely new to the United States.
- Developed the website (<http://54.152.206.84:1234/>) for publication "*Virome Data Explorer*". Utilized Node.js for the frontend and Django Python for the backend.

BIOINFORMATICS ASSOCIATE

February 2021 - October 2021

New York Genome Center - Landau Lab

- Used ArchR and Seurat pipelines to study multi-omic (scRNA, scATAC) data from murine germinal center B cells to identify subpopulations associated with reprogramming and pluripotency.
- Wrote R code to further visualize data, including code to plot cluster-based gene expression data to enable cluster annotations due to difficulties classifying cells in the cycling germinal center B cell.

UNDERGRADUATE RESEARCH ASSISTANT

October 2018 - July 2020

Rutgers Genetics Department - Gordon Lab

- Utilized the Fisher-Falconer Model to generate in silico genotype and phenotype data, analyzing the impact of genetic factors on the identification of genes influencing quantitative traits. Conducted bootstrap power calculations.
- Began adding age and aneuploidy rate as environmental effects into a threshold-based logistic model to identify effects on quantitative trait values and statistical power.

PUBLICATIONS

Marta Galanti*, Juan Angel Patiño-Galindo*, Ioan Filip*, **Angelica Galianese**[^], Haruka Morita[^], Mariam Youssef, Devon Comito, Chanel Ligon, Benjamin Lane, Nelsa Matienzo, Sadiat Ibrahim, Eudocie Tagne, Atinuke Shittu, Oliver Elliott, Tomin Perea-Chamblée, Sanjay Natesan, Daniel Rosenbloom, Jeffrey Shaman[†], Raul Rabadan[†]. (2023). *Virome Data Explorer: A web resource to longitudinally explore respiratory viral infections, their interactions with other pathogens and host transcriptomic changes in over 100 people*. PLoS Biol 21(12): e3002089. <https://doi.org/10.1371/journal.pbio.3002089>

* Co-first Authors | [^] Co-second Authors | [†] Co-senior Authors

AWARDS

FULL STACK JAVA AND C++ DEVELOPER TRAINEE

July 2020 - October 2020

mThree & The Software Guild Aspire Scholarship Program

- Developed skills in Java focusing on MVC and Tiered Application Design Concepts, including CRUD applications and Service Layer, along with Unit Testing.
- Acquired proficiency in Front-end web development and C++ covering Pointers and Dynamic Memory, Inheritance and Polymorphism, Exception Handling, and Templates, among others. Studied Relational Databases and SQL, Spring Boot Full Stack Web Apps, and Java Persistence API (JPA).

SUPER MENTOR

June - August 2019

Douglass Project SUPER Summer Research

- Awarded funding for 10-week summer research and received 1:1 mentorship from a Rutgers Faculty member.
- Attended professional development courses and acted as near peer mentor and program support for the SUPER cohort.

POSTER PRESENTATIONS

Introduction into Statistical Genetics: the Fisher-Falconer Variance and the Fisher-Falconer Power Calculator. Angelica Galianese, Derek Gordon. Douglass College Project SUPER Research Symposium. 2019 October 11.

Modeling Genetic and Environmental Effects Under the Fisher-Falconer Model. Angelica Galianese, Derek Gordon. Effective Communication Skills in Genetics. 2019 December 10.

PERSONAL EXPERIENCE

STUDENT REPRESENTATIVE, MEMBER

September 2017 – December 2019

Association of Undergraduate Geneticists, Rutgers University, NJ

- Attended bimonthly meetings and bolstered club involvement among peers, mentored and supported underclassmen
- Organized the 2018 Fall Meet and Greet that paired professors with potential research assistants

SUPERVISOR (*September 2019*), **MANAGING LIFEGUARD** (*May 2015- August 2019*), *August 2013 - August 2019*
LIFEGUARD (*August 2013 - September 2014*)

American Pool Enterprises, Edison NJ

- Supervised 11 pools staffed with 25 guards total. Maintained positive bonds with pool managers, community, and 200 guards to ensure safety and hygiene standards as implemented by the State of New Jersey.
- Maintained pools' correct chemical balance with hourly and adjusted as necessary. Enforced rules, maintained paperwork, handled challenging individuals, and proactively addressed and corrected behavioral issues.

RESEARCH MENTOR

December 2018 – August 2019

Douglass Project Research Advisory Board, Rutgers University, NJ

- Utilized previous research experience to serve as near peer mentor and program support for incoming SUPER cohort.
- Advised my mentee through her first semester conducting research and communicating her results through a poster. Met monthly to discuss her progress, results, future direction, and any other issues encountered.