

## Howida Tarabzooni

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A bright and enthusiastic scientist who wants to explore the molecular mechanisms of cellular development and apoptosis. My background has always had a strong basis in molecular biology, with most of my research based in investigating mechanisms of disease, but I have also worked as a secretary and a product liaison for the labs I worked at. I believe that studying the true biological clock that is coded in our DNA will help us revolutionize precision medicine and understand the reason for biological decay.

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### Education:

**Brown University.** *Providence, RI*

December 2020

*Masters of Arts in Biotechnology*

**Coursework:** Blood Substitutes, Molecular Mechanisms of Disease, Viral Immunology

**New York Institute of Technology.** *New York, NY*

May 2019

*Bachelor of Science in Biotechnology*

**Coursework:** Genetics, Biochemistry, Organic Chemistry, Bioprocessing, Molecular Biology

### Professional Career:

**Sloan Kettering Institute, Lito Lab.** *New York, NY*

**Research Technician** (*April 2021-January 2022*)

**Research Focus:** KRAS G12C Mutations And Their Role In Drug Resistance

- *Culturing Mammalian Cells To Produce Samples For Drug Assays*
- *Testing Drug Resistance in Cells Through Western Blots and IC50s*
- *Collecting & Creating Cell Lines From Human Samples*
- *Increasing Drug Resistance Artificially through Genetic Cloning or Through Drug Titration*

### Academic Research:

**Kilguss Research Institute, Dr. Shaw's Lab.** *Providence, RI*

**Graduate Student** (*September 2019-January 2020*)

**Research Focus:** Studying Mechanisms of Virulence of *Candida parapsilosis* through Adhesion

- *Culturing samples from neonates to test for Candida parapsilosis in gut bacteria*
- *Using PCR to confirm parapsilosis presence, (PCR+Agarose Gel)*
- *After picking from the samples above, a few undergo genetic modification through CRISPR/Cas9*
- *Adhesion & Resistance of shear force is studied through a bioflux assay*

**Touro College of Pharmacy.** *New York, NY*

**Research Assistant** (*June 2019-August 2019*)

**Research Focus:** Drug Resistance in Biofilms Produced by *Pseudomonas aeruginosa*.

- *Using biofilms cultured from patient catheters*
- *Preparation antibiotic stock at different concentrations*
- *Treating biofilm cultures with antibiotic stock overnight*

- *Staining biofilm plates and using UV spectrometer to calculate dose efficacy*

**New York Institute of Technology, Dr. Nath's Lab.** *New York, NY*

**Teaching Assistant** (*May 2019-June 2019*)

- *Plasmid Isolation*
- *PCR Reactions*
- *Molecular Cloning*
- *Cell Staining*
- *Agarose Gel Runs*

### **Laboratory Skills:**

**Basic:** Antiseptic Technique, Media Preparation, Pipetting, Sterilization of Glassware, Fume Hood Etiquette, Handling Radioactive Materials

**Molecular Biology:** CRISPR/Cas 9 Construct Development, PCR + qPCR, Western Blots, Agarose Gel & Polyacrylamide Gel Electrophoresis, Molecular Cloning, Electroporation, Isolation of DNA & RNA

**Culturing & Samples:** Culturing Mammalian, Bacterial, and Yeast Cells, Some Sample Staining IC50s, Drug Titrations

**Machine Specific:** UV Spectrometer, HPLC, Dark Room for Western Blot Development, Centrifuges, Cell Counters, Autoclave, Chromatography, Light Microscopy

### **Computer Skills:**

**Proficient In:** Adobe Photoshop & After Effects, AutoCad, Graphpad, Microsoft Suite

**Programming Languages:** Python, Java, C#, R

**Other:** Database Management, Robot Assembly