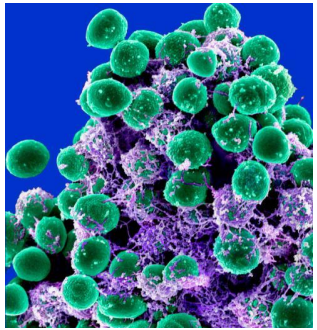
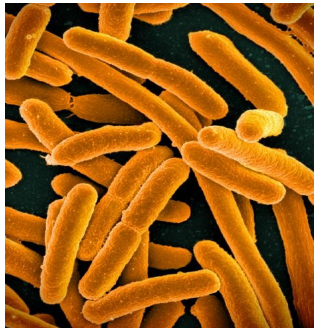
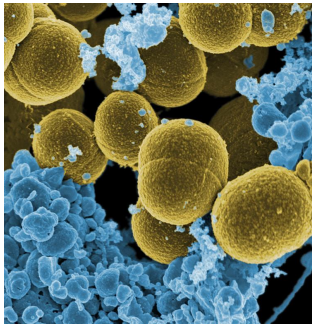
Bacteria Unearthed







What is Tiny Earth ?

- Program started at Yale to build a database of bacteria that exhibit ability to fight off the ESKAPE pathogens
- They are then further studied for medicinal use
- The bacteria isolated from the soil samples are from all over the country/world

Tiny Earth
studentsourcing antibiotic discovery

Why Join Bacteria Unearthed?

This program is a collaboration between undergraduate and high school students to source bacteria from local soil samples

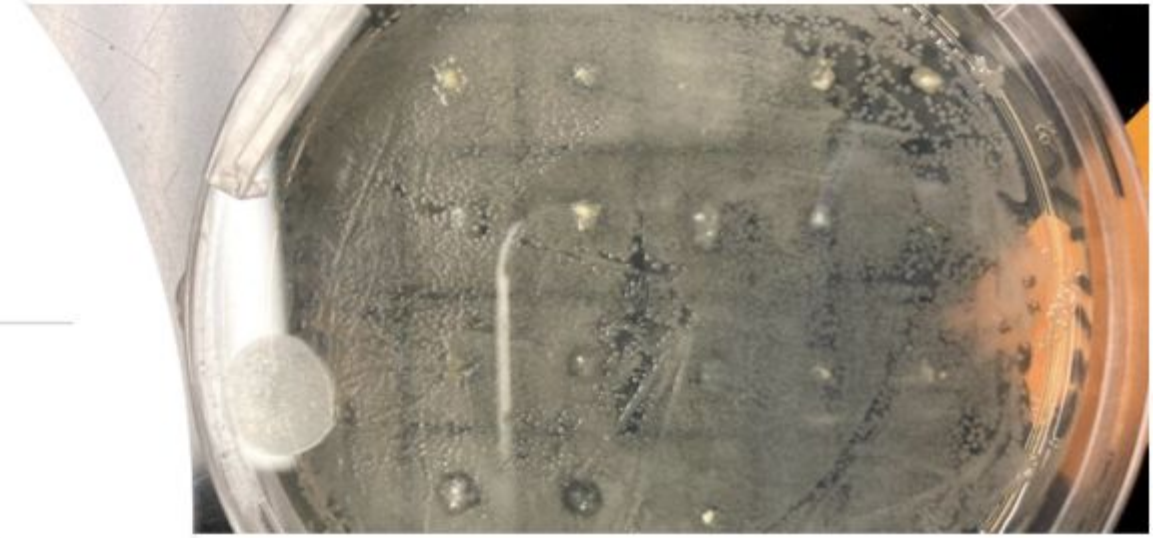
- Become an independent educator
- Build laboratory skills in the STEM field
- Discover passions and develop interests in career relevant subjects
- Work with high school students and be mentors
- Strengthen your resume

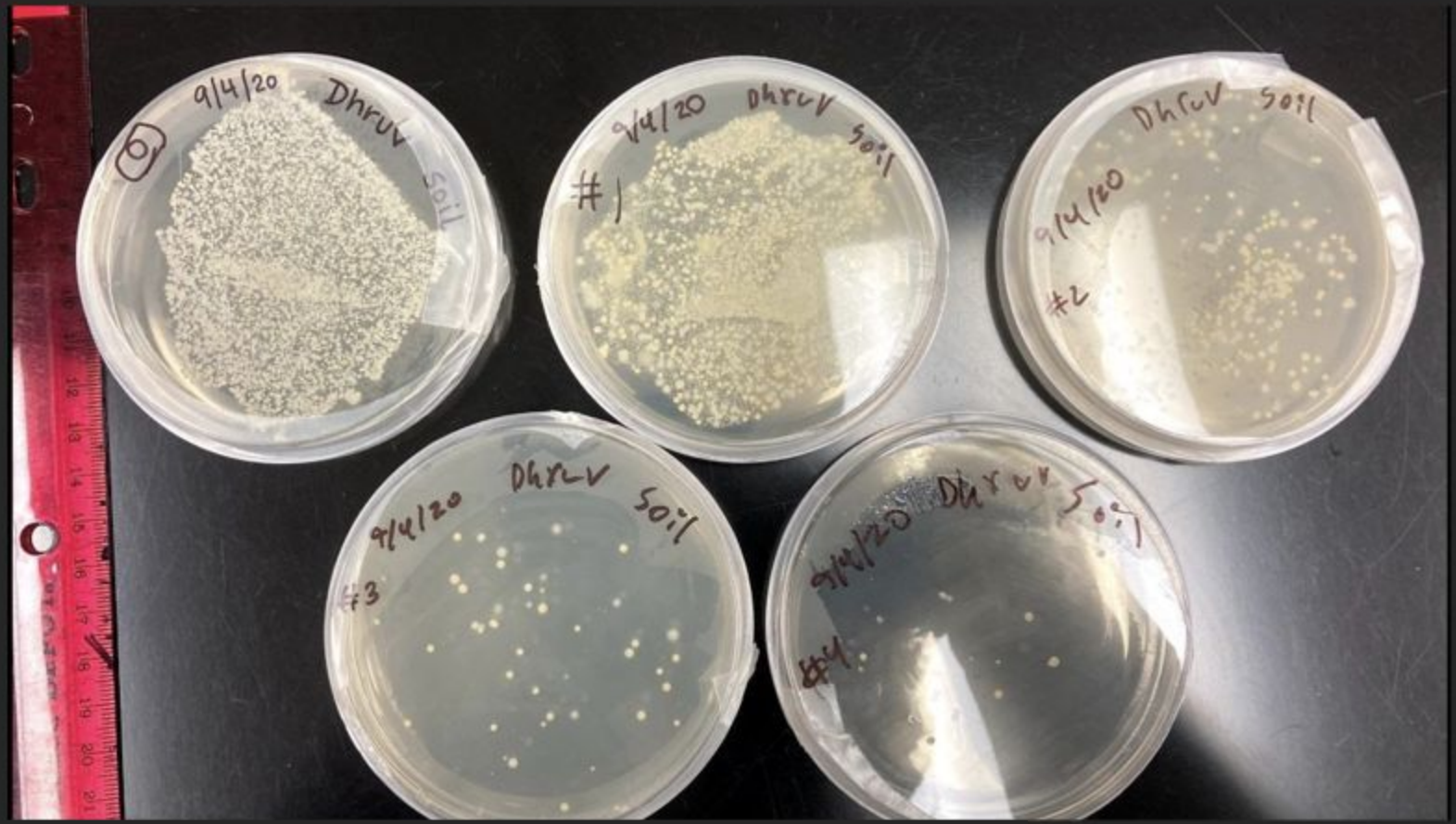
The Experiment

Purpose: To isolate and study bacteria from local soil samples for novel antibiotic production against ESKAPE pathogens

Techniques Learned/Used

- Serial Dilutions
- Pick and Patch for Master Plate
- Identifying Antibiotic Resistance Strains
- PCR and Sequencing
- Micropipetting and Gram Staining
- Identifying the Parent Strain





Serial Dilution of Soil Sample to Isolate Bacterial Colonies

Benefits of Joining

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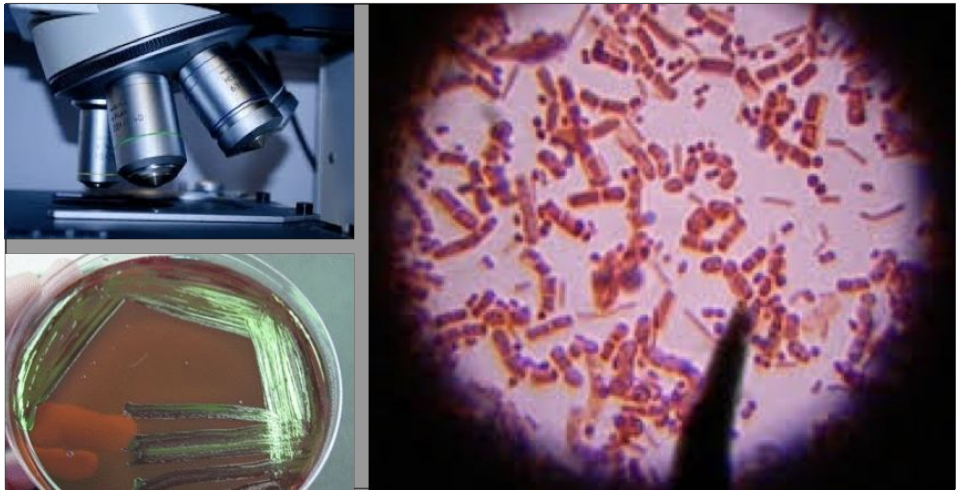
1. Learning new microbiology techniques
2. Becoming a mentor for high school students
3. Getting published in Tiny Earth Database
4. Research experience with Professor
5. Finding and creating you own research project



My Own Experience-Tassnime

I attended Trick or Treat last year around this same time (I was where you guys are now)

I applied and then began research with the team

They taught me new lab techniques and I practiced with them

I then oversaw our work with the U-School students and learned a lot through that

I now have my own “baby” within this research program as we work to hopefully publish a paper

My Own Experience-Mark

I reached out to Dr. Raja as a Bio-major interested in doing research with her in the microbiology field.

Since I joined the team, I was first briefed on the research project and the process that we had ahead of us.

They explained it to me simply so that I could understand the project.

They explained our next steps and the different places where they wanted my help.

Although I had not taken microbiology I was still able to contribute to the project by helping teach the U-School students about tiny earth.

Contact Information

Further Questions feel free to reach out to:

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Application for Interested: