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Undergraduate Research Program	
Project Name	Functional Genomics and Synthetic Biology of Actinobacteria
Campus & Location in Mexico	Monterrey
Faculty	Medicine and Health Science;Engineering
Research Area	Omics Translational
Research Responsible	Cuauhtémoc Licona Cassani
Description of the Project	One of the most important goals during the early drug discovery pipeline is unearthing novel-bioactive molecules. Although around 80% of bioactive molecules produced by actinobacteria have been isolated from Streptomyces, it is common to find that in laboratory conditions Streptomyces metabolites production is similar in chemical composition and bioactive spectrum. ~Rare actinobacteria™ are mostly isolated from extreme environments and are a promising rich sources of new compounds. The project goal is to perform isolation, sequencing, genome mining analysis and phenotypic characterization of isolates belonging to oligotrophic environments. We think that the experimental data and analysis presented in our group may contribute to the knowledge of genome mining analysis in rare actinobacteria and most importantly can direct the sampling efforts to accelerate early stages of the drug discovery pipeline.
Training Provided	Participation in laboratories;Teamwork;Test hypothesis
Modality	In Person
Offered During	Summer (5 weeks);Semester

Student	
Tasks/Responsibilities	To conduct lab experiments: Microbiology, Molecular Biology (basics), Sequencing analysis and genome mining tools.

Required Language Proficiency	English (Medium);English (Advanced)
Required Skills and Abilities	Proactivity, passion for learning, teamwork.
Other Documents Required to APPLY for an Internship	<ol style="list-style-type: none"> 1) Being at least in your 2nd year of bachelor 2) Accumulative grade point average (GPA) 2.5 3) Official Transcript 4) 2 letters of recommendation of faculty members 5) Resume 6) Letter of intention explaining the reason why you would like to participate in the research program