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### Undergraduate Research Program

<b>Project Name</b>	In vitro stress models for secondary metabolite production
<b>Campus &amp; Location in Mexico</b>	Monterrey
<b>Faculty</b>	Engineering and Sciences
<b>Research Area</b>	Bioengineering: Phytochemistry, Plant Biotechnology
<b>Research Responsible</b>	César Armando Puente Garza, Ph.D.
<b>Description of the Project</b>	The project consists in generating a proposal of a platform for the generation of secondary metabolites in plants, based on in vitro technology. The strategy will evaluate different abiotic stress mechanisms applied under controlled environment conditions, using plant tissue culture tools. Also, it will be necessary for the preparation, extraction and analysis of secondary metabolites. These studies include HPLC to identify and quantify high value molecules that provide health benefits such as antioxidants, anticancer, among others.
<b>Training Provided</b>	Plant tissue culture Extraction preparation and quantification (Folin) Bioactivity tests (ORAC) HPLC analysis

### Offered during:

SUMMER

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WINTER

☐

SEMESTER

☐

### Student

<b>Tasks/Responsibilities</b>	Data analysis Samples preparation
<b>Required Language Proficiency</b>	Spanish, English
<b>Required Skills and Abilities</b>	Basic laboratory experience Experience in biochemistry Plant physiology
<b>Other Documents</b>	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