

## **Examples of Successful DCUR Grant Applications**

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studying bats in Mississippi. I will seek proper IRB approval for this purpose with the help of my adviser. I have already completed my CITI training with the University, as well as the additional Human Subjects Research module.

The ultimate goal of my project is to contribute more knowledge to the field of bat conservation. I believe that my research will provide educators with a comprehensive overview of what other organizations are doing to benefit bat conservation efforts. By researching organizations conducting bat conservation, their methods, and the effect of the various programs, I hope to

bacteria will be grown at 30°C to the late stationary phase, and total RNA will be extracted using the RNeasy Mini kit, treated with DNase I, and quantified with a NanoDrop spectrophotometer. The induction of the *phz* pathway will be measured by quantitative PCR (qPCR) with primers targeting the *phzA* phenazine biosynthesis gene and normalized against the housekeeping *gyrB* gene. I will also compare the expression level of *phz* genes in KMB at different temperatures (30°C vs. 25°C and 37°C), oxygen levels (21% vs. 15%), growth phase (exponential vs. stationary), and culture conditions (planktonic vs. biofilm). Many pathogens coordinately regulate energetically expensive processes (secretion of virulence factors, motility, biofilm formation) via quorum sensing (QS) (9). QS is a form of cell-cell communication, which involves the production, detection, and response to signaling molecules known as autoinducers. In several groups of bacteria, the expression of *phz* genes is regulated by autoinducers, but the effect of QS on the production of phenazines in *Burkholderia* is unknown. Therefore, I will use

gift cards. Once materials have been collected, the signed informed consent papers will be kept in my mentor's locked office. The data will be entered and analyzed in SPSS.

## **Uncovering Mexican Repertoire for the Double Bass**

### **(stipend and instrument modification)**

Since fall 2018, I have researched Mexican Composers and works featuring the double-bass. Eventually, my resources became limited to internet/academic databases and the Cook/Gulf Coast libraries. When I heard about the DCUR grant program, I got excited that funds are given to research something I'm passionate about —uncovering original Mexican compositions buried





almost every scholar agrees that Sara in *Bread Givers* is a devout feminist, some scholars argue that, despite her best efforts, the patriarchy still prevails at the end of the novel. All opinions regarding the story are relevant and helpful in this kind of research. While it is important to know what scholars have said about certain literary works, to understand the author's mindset while writing a piece is key in translating the message they intent to portray. Grace Paley's short story manuscripts are located in the Harry Ransom Center at the University of Texas at Austin, and each manuscript is complete with her own hand-written revisions in the margins. By browsing these manuscripts with Paley's notes, I hope to discover her train of thought as she worked to compose her

magnitude of net charge formation will be tested in a DC field based on the size and formation rate of the depletion zone. This nanowire solution will then be deposited onto either a glass or ceramic substrate that has at least two electrodes (one cathode and one anode) under a DC electric field. Solvent vapor annealing will then be used to transform the deposited nanowires into a thin film, thus forming a specific pattern. From here, optical and fluorescence imaging will