

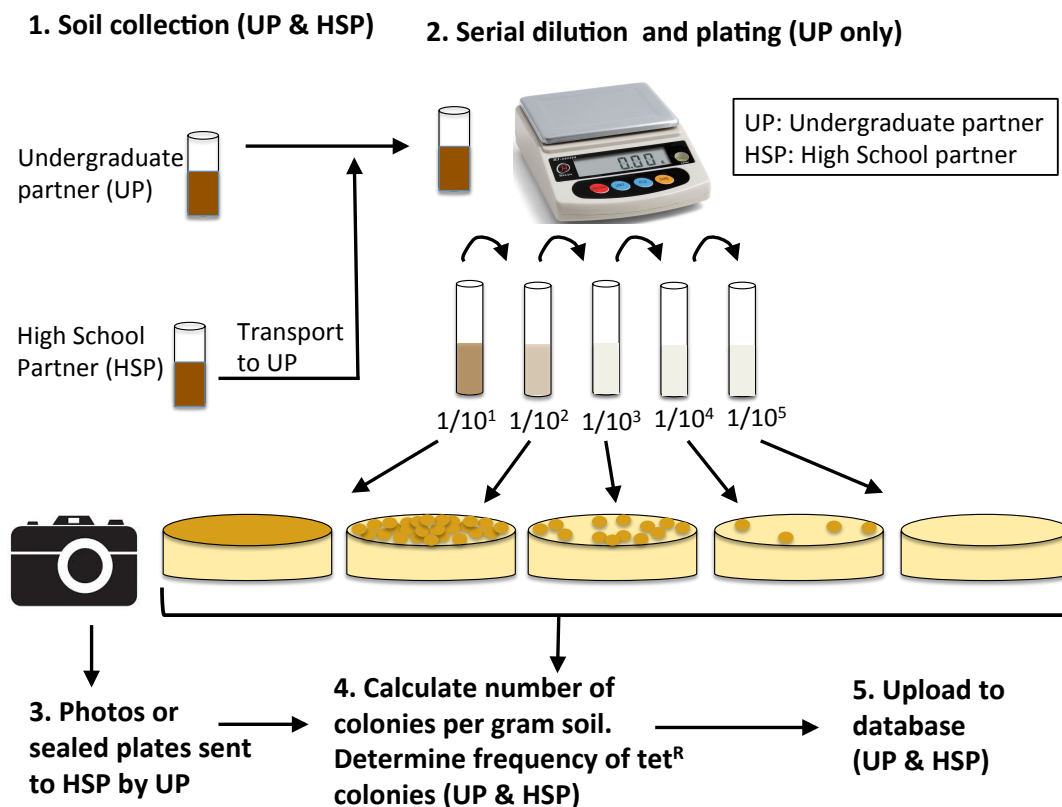
# Open Invitation to Participate in the PARE Project: Classroom Partnerships to Assess the Prevalence of Antibiotic-Resistant

The PARE program, developed at Yale University, is a low cost, low time commitment program that provides an opportunity for undergraduate laboratory instructors to engage their students in an authentic research experience with the aim of assessing the prevalence of antibiotic-resistance in the environment. The program can be implemented in two traditional laboratory class periods, totaling about 5-6 hours of class time for undergraduates. Students assess the prevalence of antibiotic-resistant microbes in a soil sample of their choice using traditional serial dilutions and colony counting. The key to program success is input from many students and systematic sampling techniques to create a database encompassing sites across the country. The program includes a high school outreach component in which each undergraduate laboratory partners with a high school classroom. High school class time requirement is about 2-3 hours for higher achieving students and 3 or more hours for students requiring more background and guidance.

## Program Goals:

- Create a database of environmental antibiotic-resistance through the crowd-sourcing efforts of students around the country
- Provide a low cost, low time commitment gateway to classroom-based authentic research for college level instructors
- Expose high school science students (particularly underrepresented minorities) to undergraduate science students and to authentic research
- Create connections between college and high school instructors to provide an opportunity for each to share their expertise in educational innovation and microbiology

## Research Flow



**Undergraduate Instructors accepted into the program are expected to:**

- Recruit one high school instructor, preferably targeting schools serving underrepresented minorities
- Brainstorm and share ideas about program implementation and analysis of the student-generated data
- Ensure quality of their students' data and entry into the database
- Participate in assessments required by funding institutions
- Attend next year's ASMCUE meeting (a \$750 travel stipend is provided to help defer the costs)

**Benefits to Instructors accepted into the program:**

- Implementation materials/protocols
- One-time supply reimbursement of up to \$500
- One-time travel reimbursement of \$750
- Minority outreach experience
- Opportunity to excite students in an authentic research experience

**Student comments:**

“It has shown me that research is very possible for my future”

“The research experience helped me realize I could do things that I considered

“It was cool to talk to college students”

It has made me want to be a part of research program in college.

**To apply to the program:**

<https://www.surveymonkey.com/s/YYH72JG>

**For more information contact:**

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