MDH CURE: Cross Institutional Collaboration

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Primarily Undergraduate Institution
40% First Generation and URM

Open Admissions
62% URM
Collaboration Set up

Courses
- NHCC (Biology I)
- Hamline (Biochemistry I)

Instructors
- Select Mutants
- Plan Assignments

Students Work on
- Hypothesis and Experimental Plan

Contact Collaborators
- Presentations and Classroom Visits (Hamline, NHCC)

Protein Purification
- (Hamline)

Activity Assays
- (Hamline, NHCC)

Contact Collaborators
- Presentations and Classroom Visits
- Reflections (Hamline, NHCC)
Students’ Feedback

scientific research ways

Community helping parties Hennepin Community colleges

interest institutions NHCC
discussing cases communicating

another solving results working

thing between working experiment met

real never

different found support

world error beneficial

both North findings people same

results facing new groups

College great

supporting groups support

during students answer

experiments experiences

collaboration way

way experiments experiences
Students’ Quotes

• "This collaboration was a great way to experience how research may be done in the real world. It showed how collaboration between different institutions may be beneficial in finding the answer that may be of interest to both parties"

• “We found that there are many different problems that can be faced when working on an experiment. All of the groups had different experiences and problems and ways of solving these problems through trial and error.”

• “It can be hard to come to terms with failing, but also hard to realize that results aren’t “right” or “wrong.” We would run an experiment, and present saying it didn’t “work.” But, in fact, it did “work,” the results just weren’t what we expected. It was interesting to learn that others share this same sentiment.”
Students’ Quotes

• “A way that this partnership is beneficial is checking results are compared to each other, if the same experiments were performed by both groups, to ensure that no other variables were accidentally introduced that could alter the results.”

• “We also learned how to have a scientific discussion with people who we have never met before, which was a new experience for us. We also learned how the research of another group can help support (or not support in other cases) our own findings that we found during our experiments.”

• “By communicating with our research counterparts, we have learned how important collaboration and communication between scientists is. It helps in comparing results from different sources and under different hypotheses. This way we can eliminate or detect the influence of any cofactors or errors.”