

Rice iGEM Meta-Analysis Questions

1. What university is your team associated with, location of university, project name, and project track?

We are from Wisconsin Lutheran College in Milwaukee, Wisconsin (in the United States). Our project is a lead contamination sensor for water. We don't have a cool name for it yet, but I can get back to you on that. It is in the environmental track.

2. How many PIs, advisors, and undergraduate team members does your team have?

We have 2 PIs and no other advisors. We have 10 members total, but only about 5 are consistently active.

3. What were the primary reasons why you chose your project?

Our team is from Milwaukee and Milwaukee has been undergoing a lead poisoning/lead contamination crisis. Milwaukee has a large concentration of lead pipes that carry water to people's homes. We would like to play our part in doing research to support the safety of the community. Our team also specializes in water test kits. We spent the last two years making a test kit for *E. coli* contamination in water. This experience helps us when working on a similar type of project. Our team also has budget constraints, so we cannot work on anything too extravagant.

4. What was the process you went through in choosing your project?

On one of the last nights of the Jamboree, the Boston team gets together with our main PI to come up with ideas. We use inspiration from other teams, community problems from back home, and other current issues to fuel most of our ideas. I (the team president) then made a list of all of the projects and delegated out research for my team to do to figure out as much as they could about the topic. I then had a meeting with my vice president and PIs to narrow down some of the topics. I also added more specific directions we could go in with each of the topics and had more meetings with my VP and PIs. We discussed feasibility, budget and time constraints, difficulty, and much more when we considered each project idea. Eventually we narrowed it down to 3 projects, had a full team vote, and picked out our final project.

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5. Do you think your location or local environment influenced your project selection? If so, how might these influences be described? (For example, after flooding in the Houston area, teams in that region gravitated toward flood-related projects)

Yes, our location very much influenced our project selection. Milwaukee has had issues with lead poisoning (especially in children) for quite a while. Although the city is in the midst of replacing some of the pipes, many people are still susceptible to the dangers of lead contamination in their drinking water. We hope our sensor would potentially be able to give community members a quick way to determine if their water is dangerous or safe to drink.

6. Were there any other projects you would have wanted to do, but were unable to do for any reason? Please explain.

We had hoped to also include a water filter to remove lead with our project this year, but with our small team consisting mostly of underclassmen with little to no research experience, we decided that it was no longer a feasible option.