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Using the Crystal Violet Biofilm Assay to Assess Efficacy of Traditional Family Remedies of Students

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The majority of bacterial infections are not caused by free-living species, but rather surface-associated biofilms. Within such infections, levels of antibiotic resistance are rapidly on the rise, thus increasing the need to explore alternative remedies. This project examined how the Standard Crystal Violet Biofilm Assay can be used to assess the anti-biofilm properties of treatment agents tested. Such remedies we have examined have been selected by students based on their cultural backgrounds and have included miswak chew sticks, soursop extract, propolis, coconut oil, and green tea. Allowing students to combine their own treatments based on family traditions with antibiotic alternative research has served as an invaluable method of student engagement. Ways this protocol can be adapted to a variety of biofilm species, treatment, and budgets were discussed.

Mission, Review Process & Disclaimer

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