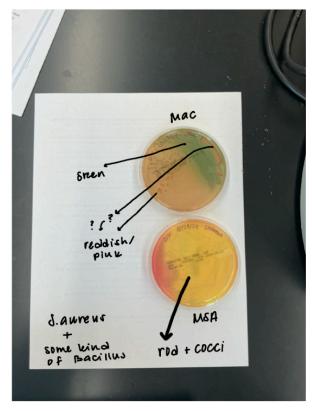
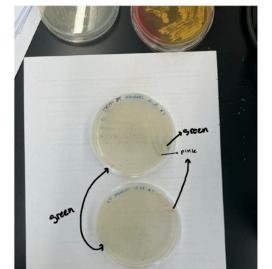


10/31/24 UNKnowns #2











Submission Unknowns Project





Attempt 1

Dec 10, 2024 at 9:21 PM

Daily Log

In addition to the daily log, we kept a photo journal of each lab session to look back on as needed.

10/29/2024

Group obtained tube with unknown mix of bacteria.

Heated 4 tubes of NA and poured them into plates when cooled.

Each group member streaked a NA plate with the unknown mix.

Each group member streaked a selective/differential media plate: MAC, EMB, MSA, and blood agar with the unknown mix.

10/31/2024

Results of NA plates

NA plates show pink, white and greenish growth. We believe the pink growth indicates the presence of *Serratia marcescens* based on bacterial growth observed in UV lab by group 8.

We streaked 4 new NA plates each to keep our bacteria going.

We streaked a NA grid plate with various colonies, growth colors, etc. from all plates.

We also inoculated a new NA broth with our original unknown sample.

Results of selective and differential media

Blood agar: no isolated colonies. There is evidence of β -hemolysis by the yellowish color of the agar/growth and area of clearance around growth in all areas.

We streaked a new blood agar plate today to try to get better isolated colonies.

EMB: growth, no metallic green, and no isolated colonies.

We streaked a new EMB to try to get better isolated colonies.

MAC: pink, green and orange growth.

MSA: only yellow growth.

Today we did catalase, negative stain and Gram stain on MSA growth. We believe we identified *Bacillus megaterium* and that our other bacteria are *Staphylococcus aureus* because of the yellow growth only on our MSA plates.

For B. megaterium testing

Yellow growth MSA plate

Catalase was positive

Negative stain was positive for rods with capsules (possibly cocci too - look at pictures again)

Gram stain showed G+ rods

For S. aureus testing

Yellow growth MSA plate

Gram stain shows G+ cocci

Other observations:

NA white isolated colonies gram stain show rods.

NA Gram staining showed G+ cocci, G- and G+ rods.

Blood agar showed this as well.

EMB showed G- rods and possibly G- diplococci.

Notes:

4 NA plates + 1 NA grid