BIO 201 Lab 11 Experiment 22 Results

Professor Diane Hilker

Overview

I. Exp. 22: Oral Flora

I. Exp. 22: Oral Flora

- **Purpose:** To examine different types of microbes in the mouth and to determine how effective mouthwash is in reducing these microbes
- Normal Flora:

1. *Candida albicans* or Yeast
2. *Lactobacillus*
3. *S. mutans*
4. Streptococcus Viridans Group: *S. salivarus* and *S. mitis*

I. Exp. 22: Oral Flora

- **Tomato Juice Ajar: TJA-pH 2.0**
  - Selective Media: acidophiles
  - Which of the microbes will grow?
    1. Yeast: large beige colonies on the 10^{-1} or 10^{-2} plates
    2. *Lactobacillus
    3. *S. mutans

*small beige colonies

I. Exp. 22: Oral Flora

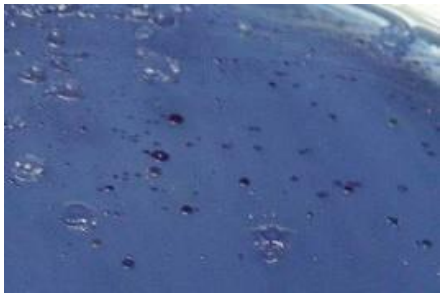
- **Mitis-Salivarus: MS Media**
  - **3 Chemicals:**
    1. Trypan Blue
    2. Crystal Violet
    3. Potassium Tellurite

- These chemicals will inhibit the growth of Gram neg. & allow certain Gram pos. to grow

I. Exp. 22: Oral Flora

- **Mitis-Salivarus: MS Media**
  - Which of the microbes will grow?
    1. Yeast: pale blue colonies on 10^{-1} plate
    2. *S. salivarus*: large gum drop colonies

    3. *S. mitis*: small blue-black colonies



I. Exp. 22: Oral Flora

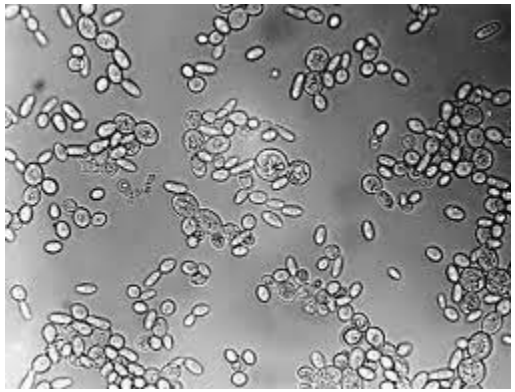
- Was there a reduction in the number of microbes in the mouth after using mouthwash?

- Which mouthwash worked best?

I. Exp. 22: Oral Flora

- Wet Mount: check for motility

Yeast

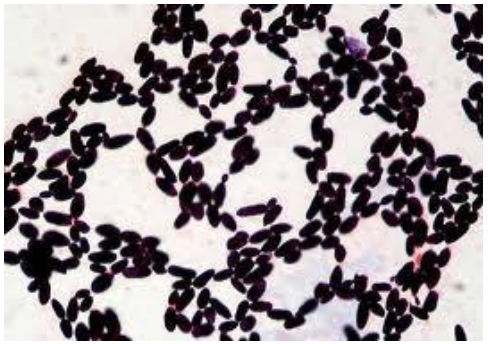


E. coli

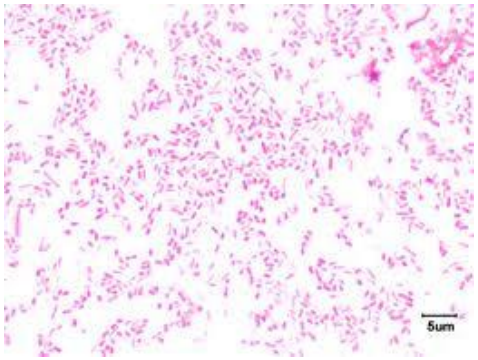
I. Exp. 22: Oral Flora

- Gram Stain

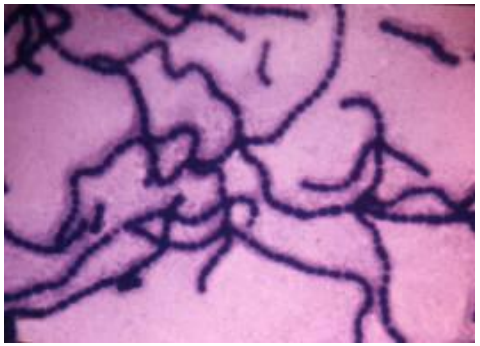
Yeast



E. coli

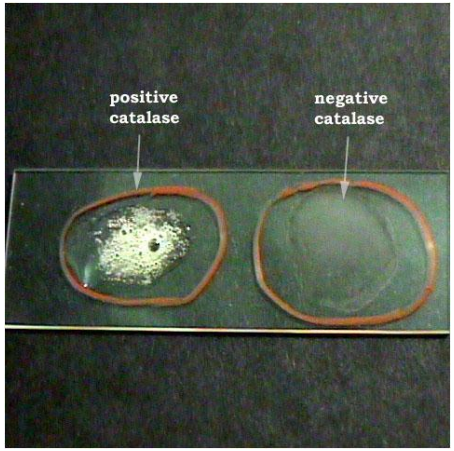


S. salivarus



I. Exp 22: Oral Flora

- **Catalase Test:**
  - ***Staphylococcus:*** Catalase positive-bubbles
  - ***Streptococcus:*** Catalase negative-no bubbles



BIO 201 Lab 11
Experiment 15

Professor Diane Hilker

Overview

I. **Exp. 15: Physiology of Bacteria**

I. Exp 15: Physiology of Bacteria

- **Purpose:** To examine specific enzymatic activities of microbes that are frequently used to identify bacterial species.

- **Page 80 & 81: highlight the following Gram Neg. rods**
  - *Escherichia coli*
  - *Enterobacter aerogenes*
  - *Citrobacter freundii*
  - *Serratia marcescens*
  - *Proteus vulgaris*
  - *Pseudomonas aeruginosa*

I. Exp 15: Physiology of Bacteria

- Follow Instructor's directions