

## 2... THE *VUMICRO™ 3.0* REFERENCE LIBRARY

### The goals for this exercise are:

- to become familiar with the parts and features of the Virtual Lab
- to become familiar with the Reference books on media, tests, bacteria, reagents, and antibiotics provided in *VirtualUnknown™ Microbiology 3.0*
- to learn how the Virtual Lab operates

### Instructions:

1. Open the software. **Work through the Tutorial to become acclimated to the means by which the Virtual Lab functions.** Once you feel comfortable with the workings of the lab, exit the Tutorial and enter the Virtual Lab. **Click on the “New” button to obtain a new unknown. A box appears requesting you to provide an identifier for the unknown so that you might relocate this work at a later time. Select the unknown labeled “Growth” from the options available in the dropdown list.**
2. Click on “Help” and review the options at your disposal. Below are listed the options available. **Briefly explain the contents of each:**
  - a. Contents
  - b. Index
  - c. Tutorial
  - d. Search for Help On...
3. Above the Virtual Lab is a yellow button with the letter “T”, which explains the biochemical tests in the software. Click on this button. **What is the first test in the alphabetical list?**
4. Exit this reference book and repeat the process for the other two. **What are the first items found in each of the alphabetized lists?**
  - a. Blue button with letter “M” (media):
  - b. Green button with letter ‘B’ (bacteria):

Name: \_\_\_\_\_

Section: \_\_\_\_\_

5. Open the Media reference book. Scroll down the list at left to find “tryptone broth”. Clicking on the item in this list brings up detailed information about its content and use in the panel at right.
6. Select tryptone broth from the media dropdown list. You will be asked to provide an identifying name for medium. Type “tryptone” in the appropriate field and click “OK”. The medium will appear on the benchtop along with a tube of inoculum to its left. Right click on the tryptone broth and select “Record Results” from the options to display a close-up of the sterile medium. **What is the nature of tryptone broth medium?**
  - a. Color: \_\_\_\_\_
  - b. Opacity: \_\_\_\_\_
  - c. Presence of Durham tube? \_\_\_\_\_
  - d. Presence of agar? \_\_\_\_\_
7. Answer the following questions using the reference books and links (in green) between them:
  - a. **What test is this medium used for in *VUMicro*<sup>TM</sup> 3.0?**
  - b. **How is indole production determined?**
  - c. **What is the content of this medium?**
  - d. **What reagent is used to complete the test, and what is its chemical composition?**
  - e. **How is the test performed?**
  - f. **What is the appearance of positive and negative tests?**