STUDENT LAB SHEET: DON'T CROSS ME

GETTING READY

- Wash 2 cutting boards with hot, soapy water and air dry.
- Label cutting boards "A," "B."
- Label Petri dishes: "A," "B," "control cheese," "control agar plate."
- Divide the remaining dish in half and label "Control Board A," "Control Board B."

CONDUCT THE EXPERIMENT

1. Swab the clean cutting boards A and B and inoculate the cutting-board control dish.
2. Partially unwrap, then swab one slice of cheese. Inoculate the cheese control dish — don't touch the cheese with your fingers (see page 9).
3. Seal the cutting board, cheese, and agar control plates.
4. Put on safety gloves, then use an alcohol wipe to sanitize the outside wrap of the hamburger.
5. Use an alcohol wipe to sanitize the knife.
6. Carefully remove the wrap from the hamburger by slitting the wrap along 3 sides of the package, being careful not to touch the meat with the knife. Then peel the wrap away from the meat. This technique helps ensure that you haven't cross-contaminated the hamburger with the knife or the wrap. This is important for a scientific experiment, but not necessary at home. Divide the hamburger in half.
7. Make one hamburger patty on cutting board A and another on board B. Make sure you press the patties into the boards as you are forming them. Let the patties sit on the boards for several minutes.

Board A

1. Remove the hamburger patty and safely dispose of it. Then remove your gloves and throw them away.
2. Thoroughly wash board A in hot, soapy water. Air dry to ensure that you don't contaminate the board with bacteria that might be on the paper towel. Put on clean gloves.
3. Unwrap a slice of cheese and put it on cutting board A. Make sure you place the cheese in the same place as the hamburger was placed. Let it sit there for a several minutes.
4. Swab the side of the cheese that was in contact with the board and inoculate Petri dish A.
5. Remove gloves and wash your hands.

Board B

1. Remove the hamburger patty and safely dispose of it, but ***do not wash cutting board B***. Remove your gloves and throw them away. Wash your hands and put on new gloves.
2. Unwrap a slice of cheese and put it on cutting board B. Make sure you place the cheese in the same place as the hamburger was placed. Let it sit there for a several minutes.
3. Swab the area of cheese that was in contact with the board and inoculate Petri dish B.

INCUBATE PETRI DISHES

- Tape all inoculated Petri dishes to seal (see page 9).
- Place the Petri dishes in the incubator at 35° C for 1 to 2 days.
- You need 18 to 24 hours to see results in an incubator or several days at room temperature. The cultures you see may be "pinpoint" cultures. Look closely to observe any bacterial growth.

Observe daily, record results, and state conclusions.