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**Slime Mold Propagation Protocol**

**Rating:**

**Yellow** (no supervision required after training)

Aseptic technique training required.

### **Introduction:**

This protocol will guide you through the process of propagating slime molds from an existing culture into a brand new petri dish. This will allow for the transfer of slime molds from one petri dish to the next for new experiments or extending the slime mold’s life span (especially when the parent culture is about to sporalate).

Estimate time: 1 hour 30 min

### **Safety Information:**

The lab has little to no safety issues. Just use common sense and refrain from cutting yourself. Call 911 if there is an emergency or reference our [list of emergency contacts](#) [link pending]

### **Technical Requirements:**

Proper aseptic technique is required for this lab. For more information please reference [this document](https://docs.google.com/document/d/1qZs2GS0wH85JVMnXy2t4CrEO7a2GxikeEwcOgO6lw5A/edit#).

### **Materials:**

* BSC fan hood (or other sterile environment)
* Spray bottle of 70% ethanol
* Latex or Nitrile Gloves
* Scalpel
* Tweezers
* Petri dish of established slime mold (in plasmodium state)
* New petri dishes with media
* Oats
* Parafilm

### **Procedure:**

1. Turn on the fan and light for the biological safety cabinet (BSC). The rest of this procedure is done inside the BSC and assumes that a sterile environment is maintained. Ensure that all items going in and out of the BSC have been sterilized with 70% ethanol, gloves are worn, and a sterile environment is maintained.
2. In a new plate, take a sterilized pair of tweezers and gently press oats into the media in desired location. This will be the plate the slime molds will be propagated to. A typical propagation uses four to five oats arranged in a circle and a single oat at the center.
3. Open the existing petri dish of established slime mold that needs to be propagated. Using the scalpel, cut out 1cm squared of media that is at least 75% covered by slime mold veins. This will be the colony that will propagate the new plate.
4. Place the square of media covered with slime mold on one of the oats. The designated oat may vary depending on the experiment but unless specified otherwise, the centermost oat is the one you want.
5. Place lids back on plates and seal with parafilm.

**Storage, Disposal and Clean up:**

Store propagated slime molds in a dark location (usually in a cabinet drawer). The petri dishes with the existing slime mold can be discarded in the trash or placed stored in a dark location for future use.