Planarian Colony Care

1) Water

- Only use spring water (Poland Spring or Ice Mountain), not distilled or tap water.
- It is important to keep the planarians in clean water; change the water every 2 or 3 days. Push the floating worms down to the bottom of the tray by pipetting and wait for the worms to settle down. Pour out the water carefully into the sink or bucket. If some worms start floating, pick them up with the transfer pipette (return into the trays later) or push them down by pipetting.
- Fill again with fresh water

2) Food

Feed the planarian once or twice a week with fresh or frozen chicken or beef liver. (A weekly feeding is quite sufficient to maintain healthy planarians).

- Purchase fresh chicken or beef liver, chop it into teaspoon-sized aliquots and wrap each aliquot in a small piece of aluminum foil. Store in a freezer-safe plastic container in a freezer.
- On feeding days, thaw one aliquot of liver for each colony container, at room temperature.
- Cut up the chicken liver on the cutting board. Remove the tough fibers in the liver.
- Throw little bits of liver into the worm trays.
- After about 2 or 3 hours remove all excess food by siphoning pieces of liver with a plastic transfer pipette without disturbing the worms. Pour a small amount of fresh water into the tray. Wash the bottom of the tray by pipetting. If some particles of liver are remaining, remove them as completely as you can. And then pour water out carefully.
- Refill with fresh water and label the date. It is very important to keep the water clean or the worms will die.

Newly fed worms appear flatter and wider. Their color changes due to blood ingestion. The light brown planarians that have recently been fed are readily distinguishable from non-fed planarians.

3) Temperature

- Most planarians like cool temperatures and should be kept between 18 and 24°C.
- Avoid temperatures above 25°C.
- During regeneration experiments lower temperatures will slow down regeneration. Keeping the worm around 24°C is best
4) Light

- Twelve hours of light and dark cycle helps expand smoothly the worm population but is really not that crucial. Planarians can also be kept in the dark as they display pronounced negative phototaxis.