

# Quarantine Room Fish Maintenance and Organization

## Overview

The quarantine room (Kincaid 262C) holds fish that may carry pathogens and therefore cannot be introduced to the main facility. These include zebrafish from other facilities as well as other species from various suppliers. These fish are typically held in 10 gallon glass aquariums until they can be bred, at which time their embryos can be bleached and moved to the main facility. Occasionally, sick fish from the main facility that cannot be euthanized (e.g., founders that need to be outcrossed), also may be held in the quarantine room. Finally, fish requiring specialized water or other treatments may be held in this room in aquaria or other containers.

Extreme care must be taken to avoid bringing fish or materials from the quarantine room into the main facility. When fish, nets, tanks, or other items are brought to the quarantine room they may not be returned to the main fish room (unless they have first been sterilized).

## Quarantine room tanks and labeling

Most quarantine room tanks contain quarantine room water (see **Recipes SOP**), which has a higher salinity than regular system water to minimize bacterial and fungal growth. Tanks should always be filled to the top unless other arrangements have been made with Dave. Typically, ~50% of each tank's water should be changed per week, with siphoning of any gravel or other substrate occurring at the same time. If water is cloudy or discolored, or if there is bacterial or fungal matting on the substrate, the tank needs to be siphoned, or in some instances, changed completely. If you are not sure how to handle a particular situation check with Dave.

Filtration and aeration in quarantine room tanks is achieved via self-contained hanging filters. The filters strain out some particulate matter, which is deposited on a removable filter that also contains charcoal. When functioning properly, water flows through the pad. If the pad becomes clogged and water flows over it, no filtration is occurring and the pad must be cleaned under hot water. Note that charcoal in the pads is superfluous as quarantine room water is made from reverse osmosis water that already is free of impurities that charcoal would otherwise capture.

Any tanks containing fish must be labeled according to standard lab practice (see **Record Keeping SOP**). Additionally, tanks must be labeled with the initials of the person who set them up and the date on which this occurred, as well as the dates on which the tank was siphoned or changed.

## Fish maintenance

The same general principles apply for quarantine room fish maintenance as for standard fish maintenance (see **Fish Maintenance SOP**): we examine fish health, system functioning, and environmental quality.

Quarantine room fish maintenance should occur only after fish maintenance has been done in the morning, midday, or in the evening for the main facility. This minimizes the chances of transferring pathogens to the other fish.

Record the following information on the Quarantine Room log:

- room temperature, current and range (twice daily; normal: 22–26 °C)
- water temperature, current and range (twice daily; normal: 22–26 °C)  
*Reset both room and water temperature thermometers.*
- fish health (twice daily; normal: ✓); see **Fish Maintenance SOP** for details  
*Note that all fish in the quarantine room are assumed to carry pathogens and may actually be sick. Fish already known to be sick may still need to be euthanized if they exhibit severe symptoms. Sick fish that are found in tanks not known to be diseased (e.g., fish from other labs or from fish suppliers) should be removed immediately, euthanized, logged on the sheet, and disposed of properly (see **Euthanasia SOP**). If you are unsure whether fish are sick or should be removed, check with Dave.*
- water clear (twice daily; normal: ✓)
- filters running without overflow (twice daily; normal: ✓)
- fish fed (twice daily; normal: ✓)
- lids clean (twice daily; normal: ✓)
- floor clean: no food or water spills (twice daily; normal: ✓)

