**STANDARD OPERATING PROCEDURE – FISH GENOTYPING BY FIN BIOPSY**

Follow this protocol to obtain tissue biopsy from the most distal tip of the caudal fin (less than 1 sq. mm of tissue), to be used as a source of genomic DNA. The caudal fin is the most desirable method to obtain a tissue sample from live adult zebrafish because it is external, easily accessible and regenerates rapidly.

**Materials:**

* Fish net
* Scalpel or blades
* Glass finger bowl containing facility water (pH 7.2) and 0.04% MS222 (Tricaine)
* Plastic spoon
* Roll of Parafilm, to be used as surgery area
* Recovery tank with fresh facility water
* Kimwipes

**Procedure:**

1. Using a net, transfer fish from tank to finger bowl containing anesthetic
2. Leave fish in bowl until fish does not respond to touch
3. Immediately and working quickly, transfer fish to parafilm
4. Remove excess water from around fish with Kimwipe towels
5. Using the scalpel or blade, remove cut tip of caudal fin (1 sq. mm)
6. Slide fish off the parafilm into recovery tank
7. Once fish is fully recovered and is swimming freely. Transfer fish to permanent tank. This can be a small tank to keep fish separate while genotyping the DNA.
8. Monitor fish for the next 24 hours. Resume normal feeding, care.