Modified DNA Extraction Procedure (01/22/2010)

1. Work with a partner. Be sure to wear a laboratory apron and safety goggles. Cut a piece of liver approximately 2 cm long and place it into the mortar. Use the scalpel or scissors to cut the liver into very tiny pieces. Caution: Always be careful when using sharp objects.
2. Use the graduated cylinder to pour 20 mL of 0.9% (w/v) saline solution into the mortar. Use the pestle to mash the pieces of liver into the saline solution until a suspension of liver cells has been formed.
3. Fold two layers of cheesecloth in half. Use the resulting four layers to strain the liver suspension into a beaker.

4a. Get glass test tube (round bottom) for centrifugation.

4b. Deliver liver cell suspension from Step #3 into the glass test tube. Centrifuge for 5 min at high speed. (Balance the test tubes)

5. After centrifugation carefully decant the supernatant into a beaker.
6. With a small graduated cylinder measure 5 mL of SDS solution and add this directly to the cell pellet in the glass test tube. Keep on ice.
7. Use glass stirring rod to dissolve the pellet with the SDS, making sure it is well mixed/dispersed. It should be viscous. (If the SDS solution turns cloudy and precipitates, gently warm with warm tap water.)
8. Add double the volume (approximately 20 mL) of 95% cold ethanol to the solution in #7. DNA should be visible by now!
9. Carefully use a glass rod to spool DNA.