**Isolation of genomic fly DNA (QIAGEN, high quality DNA)**

Use 20 - 25 flies that are anesthetized or preserved at -20oC in 95% ethanol (make sure they were alive before anesthetization or preservation)

2.) Put the flies in a sterilized mortar

3.) Remove all ethanol if the flies were preserved

4.) Pour liquid nitrogen over the flies

5.) Grind up the flies, if necessary, add more liquid nitrogen, and grind

6.) Suspend the fly powder in 2 mL Genomic DNA Lysis Buffer (see separate protocol)

 (20mM EDTA; 100 mM NaCl; 1% Triton X-100; 500 mM Guanidine-HCl; 10 mM Tris, pH 7.9)

7.) Transfer into two 1 mL-Eppendorf tubes

8.) Add 10 uL of 10 mg/mL DNAse-free RNAse A to each of the two tubes, invert 10 times, and incubate at 37oC for 30 min

9.) Add 40 uL of 20 mg/mL Proteinase K to each of the two tubes, invert 10 times, and incubate at 50oC for 2 h (invert every 30 min)

10.) Centrifuge for 20 min at full speed

11.) In the meantime, equilibrate a Genomic tip 20/G with 1 mL QBT buffer

12.) Transfer the supernatant to the Genomic tip 20/G

13.) Wash the Genomic tip 20/G 2 times with 2 mL Buffer QC

14.) Place the Genomic tip 20/G over a 1.5 mL Eppendorf tube

15.) Elute with 800 uL buffer QF

16.) Add 560 uL isopropanol, close and invert the tube several times

17.) Centrifuge for 20 min at full speed

18.) Wash with 500 uL 70% ethanol (made from 99.5%!)

19.) Air-dry for 5 min

20.) Re-suspend in 50 uL TE buffer and store at 4oC