Hemolymph collection from adult flies

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-- To make hemolymph collection tube, cut out the bottom of a used Qiagen miniprep column (the bigger opening, the better). Assemble the Qiagen column to a new 1.5 ml centrifuge tube, and place a small piece of nylon screen in between of the column and tube, so that flies body will be held by the nylon screen and the hemolymph can go through during the centrifuge.

-- To collect hemolymph, knock down 15-20 flies with CO2 and then remove the head with a razor or syringe. Quickly transfer decapitated fly bodies to the hemolymph collection tube, and centrifuge for 6 min at 1500 xg at 4°C. At the end of the centrifuge, you should see a tiny drop of clear hemolymph at the bottom of the tube.

-- To collect and measure hemolymph, use a Drummond scientific capillary tube (Cat no. 2-000-001) to suck the hemolymph out. Then measure the amount of hemolymph using a pre-calibrated scale (with a 0.1 uL interval) under the microscope. Record the value and transfer the hemolymph to a new tube with 100 ul PBS solution (an aspirator might be used to help the transfer).