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A method for the permeabilization of live *Drosophila melanogaster* larvae to small molecules and cryoprotectants

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ABSTRACT

The larvae of *Drosophila melanogaster* is a model organism used to study the muscular and nervous systems. *Drosophila* larvae are surrounded by a waxy cuticle that prevents permeation by most substances. Here we develop a method to remove this layer, rendering the larvae permeable to small molecules. Permeability is assessed using fluorescein diacetate dye uptake, and mortality upon exposure to toxic levels of ethylene glycol and DMSO. Potential uses for this method include drug delivery, toxicity assays, cryopreservation, staining, and fixation.

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Permeabilization 5th draft
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