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Mouse Harvest for Single Nuclear Sequencing of Liver

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Protocol status: Working

We use this protocol and it's working

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Abstract

This protocol is our standard murine tissue collection method in preparation for single nuclear sequencing of liver.



Tube Preparation

- 1 Annotate RNAase free 1.5ml Eppendorf tubes with mouse ID. Create "A" and "B" duplicates
- 2 Fill tubes with 500uL of RNALater (Invitrogen AM7021)

Mouse Preparation

- 3 Fast mice for 4 hours before harvest
- 4 Induce anesthesia with isoflurane

Tissue Collection

- 5 Create a midline laparotomy
- 6 Divide the falciform ligament and remove the liver en-bloc
- 7 Section off the left anterior lobe
- 8 Sharply section two 0.5×0.5cm liver pieces and place in the RNALater tubes. Place the remaining portion of the lobe in a cassette and fix with 10% formalin.
- 9 Flash freeze the tubes with liquid nitrogen and store in the -80C freezer until time for single nuclear isolation.