Xu lab protocol and instructions

Paraformaldehyde (PFA) solutions

We make 16% PFA stock solution, and make 4% PFA for animal perfusion and slice fixation.

Materials Needed:

-Weigh boats

-Thermometer

-Filter paper

-Funnel

-2 beakers w/H_2O

-Big scooper

-Graduated cylinder

-pH indicator strips

-Scale

-- hot and stirring plate

-- 1 liter volumetric flask

-KOH, NaOH for getting to final **pH 7.2**

We will make PFA solution in the mouse vivarium (Room 338) procedure room with a chemical hood.

16% PFA

- **Measure 160 g PFA for making one liter of 16% PFA**
- Heat ~700-800mL water to no more than 60^{o}C – Make sure not to boil!

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- Add PFA and stir with stiring
- Add 2-3 drops of 10N NaOH
- Allow sufficient time for PFA to dissolve
    - If takes a long time, add more NaOH
- Filter solution using a fine or medium porosity filter
- Adjust to pH 7.2 adding drops of HCl or NaOH, depending on if pH needs to be increased (NaOH) or decreased (HCl). // using pH indicator strips
- Top off with water to 1L in a 1 liter volumetric flask

4% PFA

Measure each solution below with an appropriate graduated cylinder

Mix thoroughly with the appropriate proportions:

Solution A: 1 part	50mL	5mL	2mL
Solution B: 4 parts	200mL	20mL	8mL
16% PFA: 2.5 parts	125mL	12.5mL	5mL
ddH_2O: 2.5 parts	125mL	12.5mL	5mL
	500mL	50mL	20mL