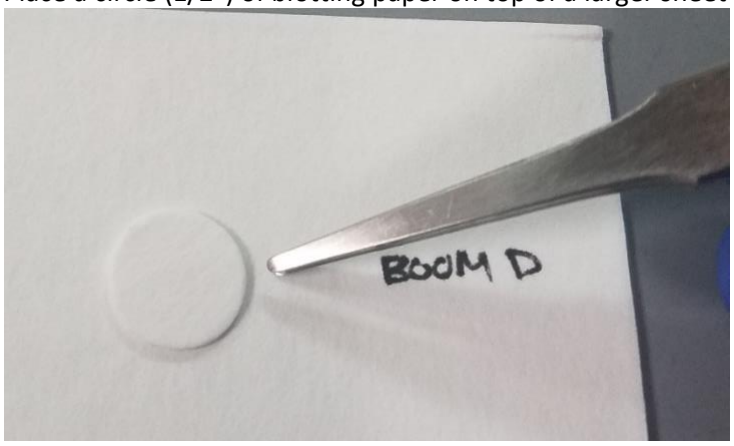
Date: **Project:** DNA/RNA storage on paper

Experiment Name:

Objective:

1. Sample 1: BoomD buffer test
- In a clean 1.5mL tube, add the following reagents, then vortex to mix.
  i. 100uL BoomD buffer
  ii. 40uL 10% NP-40
  iii. 3uL GlycoBlue
  iv. 100uL sample or NTC
- Add 90uL 1-butanol and 10uL chloroform, and vortex to mix.

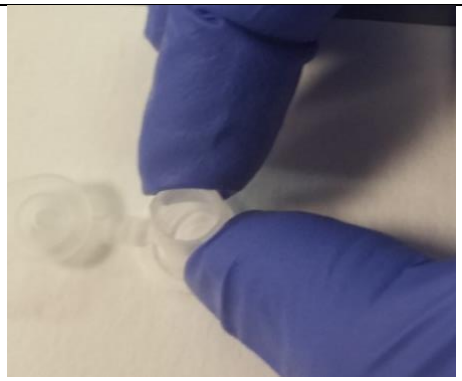
2. Place capture membrane circle on top of a circle of blotting paper, and use a 0.7mL conical tube or acrylic square to keep the membrane secure in contact with the blotting paper.
- Place a circle (1/2") of blotting paper on top of a larger sheet of blotting paper



- Place a smaller circle of PES on top of the blotting paper circle, facing **dull side up**

- Place a cut 0.7mL centrifuge tube or acrylic setup on top of the PES to press down the edges to ensure full contact with the blotting paper

3. In 50uL increments, add the sample mixture to the PES membrane, resting on top of blotting paper. Firmly press down on the 0.7mL conical tube to ensure full contact or use a magnet with the acrylic jig



4. For BoomD samples add 400uL pre-wash buffer in 50uL increments. After pre-wash, add 200uL 70% ethanol in 50uL increments. Follow with 100uL 95% ethanol in 50uL increments.

5. Dry all samples for 10 minutes at room temperature.

6. Place each paper into PCR tubes with the top of the membrane facing out and add 100uL clean elution buffer, ensuring that the paper is fully submerged. Gently vortex (low setting) the sample. Using sterile lancet, pierce a hole into the bottom of each tube, spin down into a PCR plate at 2500rpm for 1 min

7. Use 5uL sample for amplification using PCR assay. PCR protocol should be 18S assay, standard curve to quantify the extent of recovery