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

Experiment Name:

Objective:

1. **Prepare BoomD lysis buffer:**
    - Place *13-14 mL* nuclease-free water in a 50mL conical tube.
    - In small increments, add *35.4g of GuSCn* to the water. Place the tube in a 50C water bath, remove and vortex periodically until the GuSCn is dissolved and the solution is clear (for this step, buffer was left in water bath overnight). Note that the solution may fall out of solution and crystallize; if this happens, re-heat the solution in a water bath and vortex until the solution is homogenous once again. Final volume should be 43-44mL.
    - Add *5mL of 1M MOPS*, pH 7.0 (pH titrated from free acid with 10M NaOH
    - Add *1.36mL 20% N-lauroylysarcosine* (sodium salt) solution
    - Cool the solution to room temperature (place tube in cold water if necessary); might see some crystallization.
    - When cooled, add *360uL of 2-mercaptoethanol*
    - Top off to 50mL with nuclease free water.

2. **Prepare BoomD pre-wash buffer:**
    - 35mL ethanol
    - 6.25mL BoomD buffer
    - 8.75mL nuclease free water