**Pouring NG agar Petri dishes using the New Brunswick PourMatic MP-1000**

**Media Preparation**

Mix 4-liter batches of media in 6-liter Erlenmeyer flasks according to the ingredient list on Gladys’ recipe card. Be sure to put a stir bar in the flask! (Word to the Wise: We use oversized containers to prevent boil-over in the autoclave!)

Wrap the PourMatic MP-1000’s glass tube, dispensing nozzle and the open end of the silicone hose with aluminum foil. Place in a foil-covered lasagna dish for autoclaving.

Autoclave the flasks of media AND the PourMatic’s hose, nozzle and glass tubes using the “#1 – Liquid” setting (40-minute sterilize).

(Word to the Wise: Autoclave a SPARE hose nozzle and tube at the same time!!)

Put the autoclaved flasks on the stir plates WITHOUT HEAT – just stirring. Allow to media to cool until flasks are “just cool enough to hold with gloved hands” (Gladys’ instructions).

Add the remaining ingredients (cholesterol and salts) according to Gladys’ recipe for the size batch prepared.

**Mise en place**

*Petri dish preparation:*

Remove Petri dishes from their plastic sleeves and organize RIGHT SIDE UP in stacks on the work table. 12 liters of NG agar fills one case of Petri dishes

*Machine preparation:*

Remove the PourMatic’s plastic UV lamp cover.

Position the PourMatic’s “dish transfer table” (the ø8-inch disk) to center one of the two-dot marks at the machine’s plate sensor.

*Loading:*

Load the PourMatic’s carousel with EIGHT stacks of 40 Petri dishes (two sleeves-worth per column),

…leaving THIS column empty.

Ensure that the Petri dishes are RIGHT SIDE UP

Top each stack with a metal plate and place a metal plate in the empty column too. (These help hold the stacks in place as they drop.)

**Final Preparations**

When media is ready, move the first flask in position behind the PourMatic, tilted using a spare orange hot-glove.

Remove a hose/dispensing-nozzle from the autoclaved lasagna dish,

unwrap the dispensing nozzle,

and insert the nozzle into the nozzle holder so the nozzle is located over the spill-tube in the machine’s base.

Secure nozzle in place using the thumbscrews.

Load hose into peristaltic pump mechanism:

Open the pump mechanism by moving the lever to the left,

guide hose into opening with the nozzle end of hose coming out the RIGHT side,

gently center hose up against the black retainer clips,

and move the lever to the right to secure the hose in place.

Unwrap the other end of the hose and the glass tube. Insert the glass tube into the hose,

flame,

place glass tube into the flask of prepared media and

re-cover flask with its foil cap.

(Word to the Wise: Be careful not to let the hose kink at the flask mouth since this will prevent the media from flowing!)

Turn on machine (rocker switch on right side of machine near front). Machine will move the carousel and dish transfer table into a ready position.

Replace the plastic UV lamp cover and verify that the UV lamp is lit.

**Pouring**

**WARNING: WHEN MACHINE JAMS, WORK FAST TO RESOLVE! AGAR COOLS QUICKLY IN HOSE!!!**

Press the START/STOP key on the touch pad.

Machine will go through several cycles and begin pumping. (If the machine stops before sensing plates and beginning to pump press the START/STOP key again).

The first several Petri dishes will be empty while the pump primes. These can be returned to the top of the stack currently being depleted.

When a column is finished and the carousel indexes to the next column of Petri dishes, carefully remove the stack of filled Petri dishes from the carousel and place on the work table.

(Word to the Wise: The metal rods on the carousel are spring loaded. The stacks of Petri dishes are much easier to remove if lifted above the midpoint of the rods – indicated with a groove on each.)

Refill the empty column with a new stack of Petri dishes.

Repeat as necessary.

When the first flask is empty stop the machine, replace with the next flask and continue pouring.

Rinse the empty flask as noted below.

**Cleanup**

Rinse the empty Erlenmeyer flasks with hot, hot tap water and place in the dish pick-up tub for washing.

Remove the dispensing nozzle, hose and glass tube from the PourMatic.

At Gladys’ sink gently insert the open end of the glass tube into the latex hose on the faucet.

SLOWLY (!!!) open the hot tap and allow the hot, hot tap water to flow through the tube, hose and nozzle. Rinse with about 5 liters of hot water.

Remove the glass tube from the nozzle hose and place the glass tube and hose/nozzle back in the lasagna dish for the next day of pouring.