Horsman Lab Duties – August 2021

General

- Common areas should be clean. All spills, no matter how small, should be cleaned up immediately.
- Cover electrophoresis area with spill sheet (bench cover) and take initiative to replace when dirty.

Individual Workspaces

- **Bench surface** – Your workspace should be neat and organized, and should be cleaned (70% ethanol) at end of workday.
- **Glassware** - Each lab member is responsible for washing their own glassware. You may accumulate dirty glassware at your bench throughout the day, but it should be washed in a timely manner and left to dry on the drying rack. Dry glassware should be put away as soon as possible.
- **Plasticware/consumables** – Each lab member should maintain their own stocks of consumable plasticware (other than autoclaved pipet tips, see below) such as autoclaved eppendorf tubes, PCR tubes, etc.
- **Solutions/stocks** – Each person should have their own stocks of commonly used small-scale items such as LB, LB agar, autoclaved water (typically in ~50-100 ml autoclavable bottles at your bench) for everyday use including picking colonies, minipreps, making plates, etc. Similarly, small-scale working stocks of chemicals, plasmids, etc should be maintained in your own clearly labeled -20 C box.

Common Items

- Common buffers and reagents (TAE, SDS running buffer, loading buffers, etc) should be made when needed based on individual initiative, but will be scheduled if workload not being equitably distributed.
- Balances should be cleaned immediately after use if any spill occurred. If dirty, clean them before use!

Assigned Duties

1. **Autoclave waste** – On Friday, autoclave solid waste and any small amounts of liquid waste should be autoclaved if needed. Large liquid waste (e.g. litre-scale) should be autoclaved ASAP by whomever generated the waste.
2. **Milli-Q water** – Fill if less than 20% full.
3. **Autoclave tips** – Fill tip boxes and autoclave.
4. **Waste disposal –** Abour every third week, waste disposal (e.g. chemicals, solvent, broken glass, sharps, etBr) email will be forwarded to assigned lab member on a rotating basis. The assignee will let Geoff know if disposal is needed. If disposal is needed, the assignee will prepare the waste for disposal. If not, that member will remain the assignee until disposal is needed.
5. **Centrifuge and rotors –** The centrifuge and rotors should be inspected weekly and then cleaned if necessary. The inside of the rotors should be cleaned gently with the soft brush, first with soap and water and then rinsed with ethanol and left to dry upside down on a paper towel in their storage location.
6. **LC-MS inspection** (**weekly**)
    a. The helium tank should be above 300 psi (if not, inform Geoff); He tank should last 12-18 months

   b. Check that LC seal wash level okay
   c. Check pump oil level and transparency. Open ballast (purge) for at least 10 min for each pump (purge pumps sequentially). Note: if oil accumulates above max level in trap, this may mean the oil needs to be changed.
7. **LC-MS maintenance (quarterly)**
   a. Calibrate electron multiplier gain, first in positive mode then in negative mode, using the same calibration solution 88322 (ultramark peak can be used for negative mode calibration). Note voltage and send to Geoff.
   b. Replace ion transfer tube (called 'capillary' in software); clean old one by sonicating in 50% MeOH and store for later use after next calibration. Note: ultramark is 'sticky' so good practice to replace with clean ion transfer tube after each calibration.
8. **LC-MS maintenance (6-12 months)**
   a. Change oil on roughing pumps
   b. Clean skimmer