Optimizing wastewater sampling for the COVID-19 virus

1. How do we model SARS-CoV-2 concentrations in wastewater in order to determine the optimal sampling strategy –

   - For a given epidemiological context (2nd wave compared to low case numbers)?
   - At a given location within a sewerage network?
   - For a given sampling method?
     - Grab
     - Autosampling
     - Passive sampling

2. How much virus is shed by COVID-19 cases –

   - Through the course of their infection?
   - According to their age or health status?

3. How much virus is shed into wastewater catchments by COVID-19 cases –

   - Through the course of their infection?
   - According to their age or health status?
   - Through the course of an outbreak curve?