**Ultraviolet Light**

1. What is the nearest horizon application for which your technology is being assessed?  E.g. reusing fiber based N95 masks, room decontamination, plastic face shields.  Reuse of standard N95 masks.
2. Have COVID specific application of your technology been “proven” by others (open literature, trust-worthy news articles, etc). As far as we know, UVC or other UV systems have not been evaluated for specifically COVID-19, but literature shows 60-90 second UVC treatment inactivates viruses. A study by Dr. Craig Meyers at Hershey reported that UV-C at 253.7nm for 90 seconds to completely inactivated (>4log10 decrease) to Human Papillomavirus. HPV is a very stable non-enveloped virus.
3. Are the obvious limitations of your technology? Shadowing effect, which can be problematic to treat all services of masks.
4. Do you currently have a plan to assess the effectiveness of your treatment that include appropriate biological/virus assays.  No plan at the moment at UP, but some tests are being done at Hershey for UVC and pulsed UV on viruses. If it becomes necessary, a virology lab at UP can assess the effectiveness of any of these UV technologies by using a surrogate virus in place of COVID-19.
   1. If so, when?
   2. If these tests are successful when could the technology be ready for use in the field?
   3. Do you know the limitations that need to be overcome for implementation in field?
5. Other key needs for your technology to be implemented?
   1. BSL-3 lab is needed for COVID-19 inactivation study
   2. If the study is going to be performed by using a surrogate, the surrogate and the source need to be identified.
   3. The location of the treatment will be challenging due to the shipment of contaminated masks. Therefore, it is important to work with a mobile or potable unit to decontaminate the masks at its source.