Summary from - A Virtual Light Microscopy Facility Meeting to establish safe working practices in the COVID-19 era, 13 May 2020



BINA, BioImaging UK, RMS Meeting Notes

Useful links from the meeting:

- 1. Cleaning
- German BioImaging Guidelines
- Association of Biomolecular Resources Guidelines
- UK Government Guidelines
- WHO SARS-Cov2 hand rub formulations
- Testing of formulations
- US environmental protection agency guidelines for cleaning and disinfecting
- US CDC guidelines for Cleaning and Disinfecting your Facility
- Leica Microsystems: How to sanitize a microscope
- Nikon: Recommended Handling and Disinfecting Procedures for Nikon Microscope products to reduce spread of infectious agents including SARS-CoV-2 (Coronavirus)
- Olympus: How to Clean and Sterilize Your Microscope
- Zeiss: Cleaning and Disinfecting the Microscope and its Optical Components
- Keyboard covers
- Waterproof keyboards
- Cleaning solutions
- <u>Detailed list of over 400 cleaning products but searchable.</u> Says ethanol works with 1-5 mins of contact depending on product.
- Tests of viricidal wipes
- Review of cleaning solutions and viral infectivity (Note many references were not directly tested on SARS-Cov2 but other viruses)
- Sanicloth
- Peroxigard wipes
- Chemgenne wipes
- Microfiber cleaning clothes
- General SARS-Cov2 virus transmission information
- 2. **PPE**

- Sample protocol for posting about PPE and microscope cleaning
- Article arguing that masks are not that effective for the flu
- Study on the effectiveness of glove including if washed frequently with hand gel
- Video showing how masks restrict the spread of exhaled air this is with an N95 mask though
- Health Article in The Atlantic magazine about wearing masks to protect others, not yourself
- This article cites a meta-analysis of protective measures for all coronaviruses, not just CoV2
- This article cites numerous studies in respectable journals on the subject of masks

3. Physical Distancing

- CDC guidance on air exchange
- Room Purge Equation is t = (1/A) * ln(C_{init}/C_{final}) * 60 where t = time required in minutes, assuming ideal mixing A = air changes per hour
 C = concentration of contaminant
- Possible airborne spread of SARS
- Risks and how to avoid them

4. Managing Staff

- Big shout out to NEUBIAS for providing so many online resources for image processing and analysis
- Robert Hasse Youtube channel for image analysis
- Microsoft Windows 7 extended security support

5. Staff-User Interactions

- Videos from companies on how to use their instruments
- Microlist
- Video about objective lenses and shows how to apply Immersion
- <u>Training videos on the Aurox YouTube page</u>
- General information about microscopy and microscopy facilities
- Video about creating online resources
- Training video from Bruker
- <u>BioImagingUK collects microscopy resources using this shared Google Doc.</u> Add your favourites. Later they are uploaded on the RMS website.
- BINA's shared google doc with many great microscopy links

This webinar brought together expert pathologists, microscopists and virologists who are studying inactivation of virus in cells and tissues for safe handling, imaging the cell biology of viruses and handling virus-infected human tissues. Invited speakers gave short talks sharing their expertise, followed by a Q&A session to answer questions from the microscopy community.