

Horizon scanning/new tech development opportunities – Maddy and Nick

- **Which emerging areas in imaging technology are the most exciting and why?**
 - Analysis, provision of higher dimensional data (4D), challenges and how people hope to address it
 - Multi-modal imaging & workflows (including data analysis and storage)
 - Optimisation of AI, and wider use of data
 - Imaging of containment level samples
 - Non-biased/high content imaging vs question/specific molecule driven imaging
 - Bring these approaches together
- **Which areas of research would benefit from development of novel imaging techniques (/Strategies!)?**
 - Techniques that can be taken into containment facilities (CL3 etc.)
 - Focus on the biological questions first, then the technique development
 - Research areas such as immunology, virology, parasitology
 - Movement of hazardous samples
 - Modified and accepted SOPs, etc.
 - Development of portable sample containers
- **How can industry better support academics in increasing further development / take-up?**
 - Removal of proprietary data formats (towards open source)
 - Events to ease communication between academic and industrial researchers
 - industry speed dating
 - Pump prime grant opportunity
 - Opportunities to bring specific problems to industry to seek future R&D
 - Opportunities to bring solutions to a round table for further development or uptake
 - Co-funding more PhD Studentships
 - New imaging congress with companies and academia (MMC, ELMI) specifically to foster new collaborations/connections
 - Can BiolImagingUK be the contact for industry to talk to academia?
 - More understanding and flexibility on IP in collaborations.
 - We want open source, how can we get industry on board?

- Collective dealing with industry to share ideas and new discovery
- **Identify at least 1 obstacle to try and overcome (don't just say lack of funding, be specific) and 1 action point to address it**
 - Overcome the current hurdles surrounding working with, and transporting, hazardous samples (CL3, etc.)
 - Work together as a community (set up a WG) to discuss SOPs for best practice for transferring of samples between facilities (e.g.: for cryEM).

Action Point: Can we form a working group around hazardous samples and publish a white paper for community re-use and guidance

- **Generate a WIBGI (Wouldn't It Be Great If)**
 - An Industry partner day event to introduce companies and researchers
 - List of researchers and their interests
 - List of industry and their questions
 - Hackathon or similar type event, specific problems brought to a collection of industry/academic researchers - pitch meeting?
 - Call for academic problems to show to industry
 - Separated research themes?
 - Multi-technique facility that caters for specific things, ie. virology, parasites, etc.
 - Community event to share hazardous samples methods and transportation information
 - **Guidelines/Rules from BIUK similar to the RMS acknowledgements for CL samples**
 - A portable lab on wheels for advanced imaging techniques (portable cryoEM!)
- **Names of willing helpers (from this group or to approach after meeting) to form a WG to progress identified actions**
 - Working Group for Containment solutions and H&S rules:
Theresa Ward, Sue Vaughan, Flavia Moreira-Leite, Pippa Hawes

Other discussion points:

- As a community can we influence funders if there's enough of a desire/push
- How to navigate the politics around shared resources and multimodal
- Industry (thermo fisher) does feed data into a shared resource towards more collaborations. Can the funding bodies make it clearer where to go to collaborate?
 - European Science Club had a successful program to link industry with academia to list problems to find joint solutions. 1 year projects, so they're small and low risk
- QUAREP
 - Does include manufacturers
- Can procurement mandate that data has to be in a non-closed format when equipment is being purchased?
- Does standardisation have to come from the community
- Is industry changing towards more cross-division solutions?
 - How do they communicate this?
- Disconnect between academic development and industry pipelines
- Developing nodes, can we focus on specific things like viruses, tissues, etc.
- Unbiased imaging