**Risk Assessment Form**

**IMPORTANT:** Beforecarrying out the assessment, please read the Guidance Notes

**1.General Information**

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| --- | --- | --- | --- | --- | --- |
| **Department** | School of Biosciences | **Building** | Sir Martin Evans | **Room No** | Bioimaging Hub, all areas |
| **Name of Assessor** | Anthony J. Hayes | **Date of Original Assessment** | 16/07/2020 | **Assessment No** | 2 |

Status of Assessor: Supervisor  , Postgraduate  , Undergraduate  , Technician  , Other:      

(Specify)

**2. Brief Description of Procedure/Activity including its Location and Duration**

|  |
| --- |
| **Use of the Bioimaging Hub in a post-lockdown environment during the SARS (Severe Acute Respiratory Syndrome)-Cov-2 coronavirus pandemic: Welsh Government Alert level 0**  All users are required to read this risk assessment before entry to the Bioimaging Research Hub. The form covers all activities undertaken within the Hub during the SARS-CoV-2 coronavirus pandemic.  Before completing this form, you should familiarise yourself with current [Welsh Government Coronavirus (Covid-19) Guidance](https://gov.wales/alert-level-0-guidance-public-html), and all mandatory covid security measures in operation within Cardiff University School of Biosciences.  **DO NOT enter the Bioimaging Research Hub:**   * If you are SARS-Cov-2 positive or you are displaying symptoms of COVID-19 infection (e.g., persistent coughing, elevated temperature, anosmia, sickness). * If you have been in a high-risk area or had a recent contact with a covid-positive individual without obtaining a negative test result. * All users are advised to make regular use of the [Cardiff University covid screening service](https://intranet.cardiff.ac.uk/staff/coronavirus-outbreak/testing-staff-for-coronavirus-covid-19)(link [here](https://intranet.cardiff.ac.uk/staff/coronavirus-outbreak/testing-staff-for-coronavirus-covid-19)) or through regular rapid flow testing available through NHS or pharmacies.   **COVID Working Regulations within the Bioimaging Research Hub**  *All users of the facility:*   * MUST read this risk assessment in full before entering the Bioimaging Research Hub. * MUST contact bioimaginghub@cardiff.ac.uk before entering the facility. Drop off/collection of histology samples must be arranged in advance. Researchers must knock before entering the histology lab via E/0.08 only and observe all appropriate safety directives outlined in this document. Users must complete a histology request form (link [here](https://www.cardiff.ac.uk/__data/assets/word_doc/0005/2393690/New-Histology-Request-form.doc))  to specify processing preferences in advance of their visit. * MUST sanitise their hands upon entering and leaving the facility (hand sanitiser station opposite office area). Multiple gel hand wash dispensers are also available within the microscopy suites. * MUST wear appropriate personal protective equipment (PPE) within the facility, including face coverings, lab coat and gloves when using the microscopes (gloves are provided in all microscopy suites). * MUST clean the imaging equipment and immediate working area before and after use (cleaning instructions are available at each microscope station; alcohol spray and lab roll have been provided for this purpose). * MUST observe social distancing (i.e., 2 metres inter-personal space) within the Hub. * MUST NOT enter the staff office area (0.14A). * MUST knock before entering any room. Room occupancy status has now increased to two independent users/two research bubbles per microscopy suite up to a maximum of four people per microscopy suite in total. * Direct hands-on training and support for our microscope systems will now resume under social distancing rules and with PPE including face coverings. * The microscope booking calendars have been replaced with room booking calendars, as follows: “BIOSI E/0.03 - confocal/lightsheet microscopy”, “BIOSI E/0.04 - widefield microscopy”, “BIOSI E/0.05 - spinning disc microscopy”. New booking instructions can be found [here](https://www.cardiff.ac.uk/__data/assets/pdf_file/0011/483599/Equipment-booking-procedure.pdf). Users should specify which microscope system they require in the title section of the booking request (i.e., specify user name and microscope system). * MUST set the room occupancy status (vacant/in use) on the door sliders of the microscopy suites before and after use. |

**3. Persons at Risk** Are they... Notes

|  |  |  |
| --- | --- | --- |
| Staff  Students  Visitor  Contractor | Trained  Competent  Inexperienced  Disabled | All personnel entering the Bioimaging Research Hub should be considered potential vectors of the SARS-Cov-2 coronavirus. Appropriate steps, as identified in this risk assessment, must be taken for all planned activities in order to reduce the risk of transmission within the facility. |

**4. Level of Supervision** Notes

|  |  |
| --- | --- |
| None  Constant  Periodic  Training Required | Appropriate PPE (see below) and social distancing rules must be employed for any support and training. |

**5. Will Protective Equipment Be Used?**  Please give ***specific*** details of PPE

|  |  |
| --- | --- |
| Head  Eye  Ear  Body  Hand  Foot | *Head:* Face coverings are mandatory in all communal areas. Rubber eye cups have been removed to reduce eye contact with the eyepieces; users should use the camera output (i.e., monitor display) rather than microscope eyepieces if practical.  *Hands*: Hands must be sanitised upon entering and leaving the facility (wall-mounted hand sanitiser station opposite office area). Gloves must be worn in the laboratory areas before using any of the imaging equipment. Hand sanitising gel and gloves (S, M & L) are available within all microscopy suites.  *Body*: Lab-coats must be worn in the lab areas. |

**6. Is the Environment at Risk?** Notes

|  |  |
| --- | --- |
| Yes  No | Room occupancy status has now increased to two independent users/two research bubbles per microscopy suite up to a maximum of four people per microscopy suite in total. Direct hands-on training and support for the microscope systems will now resume under social distancing rules and with PPE including face coverings.  Users must follow all guidelines provided to reduce the risk of viral transmission within the facility. Users must clean their work area and imaging workstations with blue lab roll lightly-moistened with absolute alcohol before and after each use, following the procedure described on the laminated sheets provided (one at each workstation). At the end of the session, all PPE and cleaning material should be disposed of in the appropriate waste containers (see below). Enhanced cleaning of the facility will be undertaken by the University cleaning services within BIOSI. |

**7. Will Waste be generated?** If ‘yes’ please give details of disposal

|  |  |
| --- | --- |
| Yes  No | Used gloves and cleaning materials (blue lab roll lightly-moistened with absolute alcohol) should be disposed of in the orange cardboard waste containers provided in each microscopy suite.  Glass histology slides should be disposed of in the yellow plastic contaminated sharps bins provided in each microscopy suite. All waste should be disposed of through the appropriate disposal route. |

**8. Hazards involved**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Work Activity / Item of Equipment / Procedure / Physical Location** | **Hazard** | **Control Measures and Consequence of Failure** | **Likelihood (0 to 5)**  🞩 | **Severity (0 to 5)**  ═ | **Level of Risk** |
| Use of Bioimaging Hub core facilities and services / <https://www.cardiff.ac.uk/biosciences/research/technology-research-hubs/bioimaging-unit>/  BIOSI II,Ground floor east (E/0.14;E/0.03-E/0.08) | Transmission of SARS-CoV-2 coronavirus within the Bioimaging Hub core facility. | *Administrative measures:*  Bioimaging Hub webpages and SOP repository updated to include new COVID-security guidelines and instrument booking information. Hub userbase will be updated through these webpages, via email and social media channels.  Desktop shortcuts (coronavirus icon) to the above information sources have been set up on all networked imaging systems within the Bioimaging Hub.  COVID working guidelines on looping display (digital signage monitor) outside facility and on laminated signage both outside and within the facility.  All Hub staff have been involved in developing the new COVID working guidelines. Staff are familiar and comfortable with the control measures that have been implemented. | 0 | 5 | 0 |
| As above | As above | *Physical distancing measures:*  Observation of at least two metres inter-personal space at all times within facility.  No hand-to-hand contact.  Staff office area (E/0.14) off-bounds to Hub users.  Main corridor, single person access only.  Reduced occupancy in microscopy suites (E/0.03; E/0.04 & E/0.05). Room occupancy signage (vacant/in use sliders) and knock before entering policy.  Training and support will require appropriate PPE (see below). | 0 | 5 | 0 |
| As above | As above | *Hygiene measures:*  Respiratory hygiene: face coverings mandatory in all communal areas.  Hand hygiene: Sanitise hands upon entering and leaving facility (wall-mounted hand gel opposite office); avoid direct hand contact with surfaces within the facility; gloves to be worn when using all Hub equipment (see below); hand sanitising gel, soap/water and paper towels available within microscopy suites.  Avoid bringing any unnecessary, personal items into facility. | 0 | 5 | 0 |
| As above | As above | *Personal protective (PPE) measures:*  Face coverings mandatory in all communal areas. Lab-coats to be worn in all lab areas. Protective gloves to be worn when using all imaging workstations.  Cling film available to cover microscope eyepieces and other high contact surfaces (e.g., keyboards).  Safety glasses recommended but not provided. | 0 | 5 | 0 |
| As above | As above | *Enhanced cleaning measures:*  All users must clean microscopes and immediate working environment before and after usage with blue lab roll lightly-moistened with absolute alcohol (provided in all microscopy suites). Laminated instructions detailing cleaning procedure are available at all imaging workstations within the Bioimaging Hub.  Enhanced cleaning of the facility will be undertaken by the University cleaning services within BIOSI. | 0 | 5 | 0 |
|  |  |  |  |  |  |

**9. Chemical Safety (COSHH Assessment)**

Before completing this section please refer to the Cardiff University COSHH training on learning central for guidance. Enrolment on to the training will be via the local learning central administrator.

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| --- | --- | --- | --- | --- |
| **Hazard** | **Control Measures** | **Likelihood (0 to 5)**  🞩 | **Severity (0 to 5)**  ═ | **Level of Risk** |
| Absolute alcohol used for sanitising microscopes and working area is flammable. | Small volumes of absolute alcohol kept in thick plastic screw top spray bottles tightly-sealed with parafilm. Bottles kept away from ignition sources. ‘Flammable’ label attached to all bottles. ‘Do not spray directly onto equipment’ label attached to all bottles. Laminated instruction sheets next to all imaging workstations detailing cleaning procedure. Cleaning will be performed wearing PPE (face coverings, lab coat and gloves). Any spillages will be mopped up immediately with blue lab roll and disposed of in appropriate waste container. | 0 | 5 | 5 |
|  |  |  |  |  |

**Scoring Criteria for Likelihood (chance of the hazard causing a problem)**

0 – Zero to extremely unlikely, 1 – Very Unlikely, 2 – Unlikely, 3 – Likely, 4 – Very Likely, 5 – Almost certain to happen

**Scoring Criteria for Severity of injury (or illness) resulting from the hazard**

0 – No injury, 1 – First Aid is adequate, 2 – Minor injury, 3 – "Three day" injury, 4 – Major injury, 5 – Fatality or disabling injury

**10. Source(s) of information used to complete the above**

[German BioImaging recommendations for operating Imaging Core Facilities in a research environment during the SARS-CoV-2 pandemic](https://www.gerbi-gmb.de/sites/default/files/2020-04/GerBI-GMB_Corona_Recomm_2020-01-04.pdf).

[Leica: How to sanitize a microscope](https://www.leica-microsystems.com/science-lab/how-to-sanitize-a-microscope/).

[Olympus: How to clean and sterilize your microscope](https://www.olympus-lifescience.com/uk/discovery/how-to-clean-and-sterilize-your-microscope/).

[Zeiss: Cleaning and disinfecting the microscope and its optical components](https://p.widencdn.net/xovbuw/EN_quick-guide_cleaning-disinfecting-microscope).

**11. Further Action**

|  |  |
| --- | --- |
| **Highest Level of Risk Score** | **Action to be taken** |
| 0 to 5 | No further action needed |
| 6 to 11 | Appropriate additional control measures should be implemented |
| 12 to 25 | Additional control measures **MUST** be implemented. Work **MUST NOT** commence until such measures are in place. If work has already started it must **STOP** until adequate control measures are in place. |

**12. Additional Control Measures – Likelihood and Severity are the values with the additional controls in place**

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| --- | --- | --- | --- | --- | --- |
| **Work Activity / Item of Equipment / Procedure / Physical Location** | **Hazard and  Existing Control Measures** | **Additional Controls needed to Reduce Risk** | **Likelihood (0 to 5)**  🞩 | **Severity (0 to 5)**  ═ | **Level of Risk** |
|  |  |  |  |  |  |

After the implementation of new control measures the procedure/activity should be re-assessed to ensure that the level of risk has been reduced as required.

**13. Action in the Event of an Accident or Emergency**

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| Report immediately to supervisor / manager (Tony Hayes; ext 76611) |

**14. Arrangements for Monitoring the Effectiveness of Control**

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| Constant vigilance, day-to-day checking, user feedback and regular review of safety measures. |

**15. Review:** This assessment must be reviewed by (date):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of Reviewer: | Anthony Hayes |  | Date of Review: | 28.9.2021 |
| Have the Control measures been effective in controlling the risk? | Yes | | | |
| Have there been any changes in the procedure or in information available which affect the estimated level of risk? | The security measures have been relaxed in line with current Welsh Government and CU guidance and will allow support and training on microscope systems and a controlled increase in footfall through the facility. | | | |
| What changes to the Control Measures are required? | The existing control measures are deemed appropriate for the current coronavirus alert level. | | | |

**16. Signatures for printed copies:**

|  |  |
| --- | --- |
| Form completed by: Anthony J. Hayes | Date: 28.9.2021 |
| Approved by: | Date: |
| Assessor: | Date: |
| Reviewed by: | Date: |
| This copy issued to:  (print name and sign) | Date: |