**GENERAL HEALTH AND SAFETY RISK ASSESSMENT FORM**

**Activity Location**
NIRS Lab, room G06

**Activity Description**
NIRS Lab work – experiment set-up and equipment testing

**Assessor**
Jessica Mylchreest

**Assessment Date**
21.07.20

**Date of Assessment Review**
TBC

**Academic / Manager Name**
Hamid Dehghani/Sam Lucas

**Academic / Manager Signature**

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### Hazard Assessment

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Hazards Identified</th>
<th>Who might be harmed?</th>
<th>How might people be harmed?</th>
<th>Existing Control Measures</th>
<th>Initial Risk Rating</th>
<th>Are these adequate?</th>
<th>Changes to/ Additional Controls</th>
<th>Residual Risk Rating</th>
<th>Owner</th>
<th>Due Date</th>
<th>Action Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisational</td>
<td>Virus Transmission in the workplace and NIRS Lab area</td>
<td>NIRS Lab users</td>
<td>Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking.</td>
<td></td>
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</tbody>
</table>

1. All NIRS Lab Users must have read or completed the following prior to commencing any activity within the NIRS lab area:
   a. Received approval for their proposed research activity to re-commence from the CHBH Operations Manager; after such activity has been reviewed by the Modality Lead, CHBH Co-Director, CHBH Operations Manager and the CHBH H & S Representative to ensure that the proposed activity will be compliant with all relevant CHBH risk assessments and University guidance
   b. Read the University Covid-19 Handbook
   c. Completed the University online return to campus CANVAS course
   d. Attended an online CHBH building induction session
   e. Read and acknowledged the CHBH Building Covid-Secure Risk Assessment
   f. Read and acknowledged this risk assessment

2. All NIRS Lab users will be reminded, as per the CHBH Building Covid-Secure Risk Assessment, that they must not attend the CHBH building if:
   a. They feel unwell, or develop COVID-19 symptoms.
   b. They have recently spent time with someone who was unwell, had or has since developed COVID-19 symptoms.
   c. They have been advised to self-isolate by a health professional or a Government representative.
   d. Staff and Students will be advised of the procedure to follow in the event of the above occurring [https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx](https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx)

3. All users are reminded of the importance of keeping the activity time involved as short as possible, including revising or eliminating certain processes if practicable and safe, adapting FAQs as required. Users are expected to be efficient and professional in their approach to their activity. All meetings, data analysis, office work will take place off campus, for example using Zoom or other online working and meeting platforms.

4. All NIRS lab users will be provided with a copy the CHBH Covid-Secure compliance process:
   a. All NIRS Lab users have a responsibility to encourage their colleagues to adhere to public health requirements and highlight any issues or concerns to the ‘NIRS Lab Responsible Person’ Jessica Mylchreest; the CHBH Health and Safety Representative, Nina Salhan; the CHBH Operations Manager Jessica Mylchreest, their Line Manager or Principal Investigator (preferably in that order).
   b. Any non-compliance with public health requirements, the CHBH Covid-Secure Building Risk Assessment, or the NIRS Lab Risk Assessment, or directions given by the NIRS Responsible Person, will be referred to the appropriate person as per the CHBH Health and Safety Covid-Secure Compliance Process.

5. Health and Safety concerns that do not pose an immediate risk can be reported (anonymously if desired) via the CHBH H & S concern reporting form, located on the CHBH Intranet page, accessible by all CHBH General...
<table>
<thead>
<tr>
<th>Organisational</th>
<th>Psychological and Mental Well being</th>
<th>Loss of Knowledge, technical skills</th>
<th>NIRS Lab users</th>
<th>Loss of skill competency with NIRS lab equipment usage policies and procedures due to not being in the NIRS lab environment for a period of over three months. Can lead to anxiety, confusion, loss of skills and be a Safety Risk</th>
<th>5</th>
<th>4</th>
<th>10</th>
<th>NO</th>
</tr>
</thead>
</table>
| Biological    | Virus transmission in the workplace and NIRS Lab | NIRS Lab users | Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking. | **Specific individual worker risk assessment** undertaken for those who have a self-declared health condition which could increase their risk profile.  
**Social distancing: Building checklist** has been completed to identify the control measures to consider reducing the risk of workplace infections. | 5 | 3 | 15 | NO |
| Biological    | (Continued)                        |                                  |                 | 1. NIRS Lab cleaning process document, detailing how and when to clean equipment and workstations will be provided to all NIRS Lab users prior to commencing work.  
2. NIRS Lab users will be asked to read and acknowledge (via electronic signature) the NIRS Lab cleaning process document and return to Jessica Mylchreest via email.  
3. At the end of each day (full day or part thereof) each lab user, will electronically complete and sign the NIRS Cleaning Process check list, and forward this via email to Jessica Mylchreest by 5.00 pm on the same day to record that the cleaning has been completed.  
4. All unnecessary equipment or other items will be removed or tidied away to remove unnecessary touch-points and to facilitate cleaning.  
5. NIRS Lab users to wear disposable gloves and plastic aprons whilst cleaning equipment. Gloves and disposable cleaning cloths to be disposed of via the general waste bin, double bagged and disposed of by HAS cleaning staff as per the CHBH Cleaning SLA.  
6. Personal work areas and all equipment used must be cleaned, following the cleaning process document instructions, each day prior to leaving.  
7. Shared work areas, and all equipment used, must be cleaned at the end of the activity or usage session, prior to leaving the area.  
8. Clean shared items will be placed in a designated place or clearly identified so that lab users can readily identify clean items.  
9. Hand tools or small items of equipment will not be passed between colleagues, they must be cleaned, set down in the designated area, and the collected by the colleague whilst maintaining 2m distance.  
10. Sharing of equipment will be restricted where possible. Each user should have their own set of basic tools (screwdrivers, scissors, sharp etc.).  
11. All common lab equipment such as the desktops and fibers etc., should be cleaned / disinfected before and after use following the local rules guide: NIRS cleaning list.  
12. Items that cannot be cleaned effectively (fiber ends) should be only be handled one person, Guy Perkins . where practicable. If this is not possible, gloves to be used when handling this equipment, a fresh pair of gloves should be used for each handling occasion. If other equipment needs to be touched in between, a new fresh pair of gloves needs to be used.  
13. A review of daily use tools will be undertaken, and where necessary (required to be used by more than one person), an additional set will be purchased and supplied before lab use re-commences.  
For items that are infrequently used, or not able to be purchased to | 5 | 2 | 10 | Hamid Dehghani/Sam Lucas Jessica Mylchreest | On-going for all NIRS lab usage sessions | Ongoing |

Environmental  

<table>
<thead>
<tr>
<th>Virus transmission in the workplace due to lack of social distancing</th>
<th>NIRS Lab users</th>
<th>Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking.</th>
<th>5</th>
<th>4</th>
<th>20</th>
<th>NO</th>
</tr>
</thead>
</table>

1. Maximum of two NIRS personnel to be in the NIRs Lab. The NIRs Lab capacity will be clearly displayed on the door of the NIRs Lab, the maximum capacity in this space will be two (2) people.
2. Use of areas within the NIRs Lab will be scheduled between lab users prior to the day commencing (or as required) via email or other electronic means.
3. NIRs Lab Users will be required to book their lab usage time via the CHBH booking system. Calendly, to assist with ensuring that CHBH Building, and area maximum capacity numbers are adhered to.
4. It is anticipated that only 1 PORA and 1 PhD student will be consistently using the NIRs Lab. Any other lab users, or visitors, must pre-arrange their attendance. Firstly, by following the CHBH attendance process as set out in the CHBH Risk Assessment, and secondly by contacting Jessica Mylchreest, via email or telephone call, no less than 24h prior to confirm the lab use/attendance.
5. Jessica Mylchreest will be responsible for storing an electronic record of all people attending or working in the NIRs Lab, including name and contact details.
6. If technical problem with NIRs lab equipment, Contact Hamid Dehghani or Sam Lucas- phone or email to report problem and to ask for advice. Problem solving will be initially attempted over the phone or via email.
7. If other CHBH Personnel need to enter with good reason while the NIRs lab is in use, then one NIRs Lab person must leave the lab, and wait at a safe (2m) distance in the corridor.
8. All surfaces that have come into contact with NIRs Personnel are to be cleaned with 70% EIOH Isopropyl Alcohol for > 1 minute following WHO guidance, or as detailed in the NIRs Lab Cleaning protocol.

Environmental  

<table>
<thead>
<tr>
<th>Virus transmission in the workplace</th>
<th>NIRS lab users</th>
<th>Food is a potential source of pathogens</th>
<th>5</th>
<th>3</th>
<th>15</th>
</tr>
</thead>
</table>

1. Food consumption is not allowed in the NIRs Lab.
2. Any drinks used by the NIRs lab users should be in covered personal containers or covered disposable containers.
and carries a risk in contaminating the NIRS lab areas leading to infectious transmission to humans. Pathogens including COVID-19 may be transmitted from objects or surfaces to the mouth.

| Environmental Chemical Safety | NIRS Operators/Shadower (as necessary) | NIRS Support | Exposure to Chemicals/Skin contact during Infection Control and Cleaning. | NO | 1. All cleaning solutions/wipes will be pre-mixed and pre-prepared (as required).
2. Only CHBH supplied disinfection products are to be used at all times.
3. No free liquids are to be used near electrical devices and outlets or in NIRS lab.
4. NIRS lab users to wear gloves and aprons during cleaning procedures. | 5 | 2 | 10 | Jessica Mylchreest | From 27.07.20 and ongoing |
Risk Assessment Guidance

Risk Scoring System

The scoring system is provided as a tool to help structure thinking about assessments and to provide a framework for identifying which are the most serious risks and why.

| Consequence / Severity score (severity levels) and examples of descriptors |
|---|---|---|---|---|---|
| Domains | Negligible | Minor | Moderate | Major | Catastrophic |
| Impact on the safety of staff, students or public (physical / psychological harm) | Minimal injury not requiring first aid or requiring no/minimal intervention or treatment. No time off work | Minor injury or illness, first aid treatment needed or requiring minor intervention. Requiring time off work for <3 days | Moderate injury requiring professional intervention. Requiring time off work for 4-14 days | Major injury leading to long-term incapacity/ disability (loss of limb) | Incident leading to death | Multiple permanent injuries or irreversible health effects |

<table>
<thead>
<tr>
<th>Likelihood score</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Rare</td>
<td>Unlikely</td>
<td>Possible</td>
<td>Likely</td>
<td>Almost certain</td>
</tr>
<tr>
<td>Broad descriptor</td>
<td>This will probably never happen/occur</td>
<td>Do not expect it to happen/occur but it is possible it may do so</td>
<td>Might happen or occur occasionally</td>
<td>Will probably happen/occur but it is not a persisting issue</td>
<td>Will undoubtedly happen/occur, possibly frequently</td>
</tr>
<tr>
<td>Time-framed descriptor</td>
<td>Not expected to occur for years</td>
<td>Expected to occur at least annually</td>
<td>Expected to occur at least monthly</td>
<td>Expected to occur at least weekly</td>
<td>Expected to occur at least daily</td>
</tr>
<tr>
<td>Probability</td>
<td>&lt;0.1 per cent</td>
<td>0.1–1 per cent</td>
<td>1.1–10 per cent</td>
<td>11–50 per cent</td>
<td>&gt;50 per cent</td>
</tr>
</tbody>
</table>

The overall level of risk is then calculated by multiplying the two scores together.

Risk Level = Consequence / Severity x Likelihood (C x L)

The Initial Risk Rating is the level of risk before control measures have been applied or with current control measures in place.

The Residual Risk is the level of risk after further control measures are put in place.