

## APPENDIX 14: Laboratory Risk Assessment for Return to On-Site Working

*This document is provided as a template that departments might wish to adopt and/or adapt for risk assessment and work plans for individual research groups/areas.*

1. DEPARTMENT DETAILS		
<b>Building:</b> West Wing	<b>Rooms or area:</b> Level 5, West Wing - Large lab 3 - Tissue culture 5	<b>Risk assessment Version/Date</b> <b>Version</b> 2.1 23/11/2020
<b>Head of Department</b>	Prof. Kevin Talbot	
<b>Department:</b>	Nuffield Department of Clinical Neurosciences	
<b>Academic/Line Manager</b>	Simon Rinaldi	
<b>People returning to working on site (status/names)</b>	Staff	NAME(S) Simon Rinaldi Alexander Davies Ana Candalija Janev Fermi Sonja Pikkupeura
	Post graduate students	
<p><b>Activity Summary</b> (Types of activities expected &amp; authorised to take place – brief description of the experiments and equipment used)</p> <ul style="list-style-type: none"> <li>• Cell culture in class II biosafety cabinet.</li> <li>• Confocal microscopy imaging (dedicated facility).</li> <li>• Tissue sectioning on cryostat (in LL3 recess bay area).</li> <li>• Tissue dissection: spinal cord and DRG for primary culture – shared dissecting microscope by window.</li> <li>• Immunostaining at lab bench and using, molecular assays (e.g. immunoprecipitation).</li> <li>• Gel electrophoresis (in dedicated area of LL3).</li> <li>• Aspiration of wash solutions from tissue culture plates etc using vacuum pump and waste reservoirs (window side of LL3).</li> <li>• Western blot involving use of developer in dark room (see below)</li> <li>• Plasmid midi preps involving shaking incubator.</li> <li>• Glass wash room to deposit and collect materials for autoclave.</li> <li>• Storage and retrieval of samples from nitrogen tank; collection of liquid nitrogen for tissue preparation.</li> <li>• Handling of volatile chemicals in fume cupboard.</li> <li>• Reading ELISA plates on plate reader (shared with Irani/Waters/Talbot/Turner/Tofaris groups in LL2).</li> <li>• Nanodrop machine for nucleotide analysis (shared with MacLaren group in LL3).</li> <li>• UV Illuminator for gel imaging (shared with MacLaren group in LL3).</li> </ul> <p><b>External work:</b></p> <p><b>Flow cytometry facility</b> (Room 5605, Level 5, John Radcliffe Hospital): Access will be authorised by Dr Helen Ferry in accordance with the 'Code of Practice' issued by the Nuffield Department of Medicine. All sessions will be pre-booked. Access to the WIMM cell sorting facility will be authorised by Dr Paul Sopp.</p> <p><b>Electron Microscopy Facility</b> (Dunn School Bioimaging Facility): Access will be authorised by Dr Errin Johnson. Access to ultra-microtome is operated on a booking system. Sample imaging will be provided by Dr Johnson as a service on a per sample basis.</p> <p><b>Biomedical Services</b> (John Radcliffe site animal facility): Access will be authorised by Dr Jordan Tanner and organised with the booking system on the BMS intranet.</p>		

**Nuffield Orthopaedic Centre (OUHFT/NDORMS):** Interaction with patients enrolled in PiPL studies at the the NOC **only subsequent to approval from OUHFT and in concert with PiPL chief investigator A/Prof Annina Schmid.** Patient blood samples collected and brought back for processing to NDCN Level 5 to be prepared in accordance of the NDCN SR RA001 COVID-19 Risk Assessment.

**Shared use?**

Is the space shared with individuals from other departments? If yes, please list the departments concerned

**LL3 (05.66.46)– Bennett – Rinaldi – MacLaren – Halford – Nemeth**

**LL2 (05.66.45)– Irani – Waters – Talbot – Turner – Tofaris – Rinaldi (Plate reader use only)**

**TC 5 – (05.66.32) – Rinaldi – Bennett**

**Confocal microscope/calcium imaging room – (66.04C) – Rinaldi – Bennett**

**Dark room (66-28) – Bennett – Rinaldi - CVM - others**

**Electrophysiology (66-06) – Bennett – Rinaldi (occasionally)**

Confocal microscope, cryosection machine, Roche LightCycler PCR machine and class II Microbiological Safety Cabinets (CLII MSC) are shared with others. An online booking system is in place for these equipment (Google Calendar).

PCR machines and shaking incubator (bacterial) operate a paper log-book system. Use of this equipment will be co-ordinated locally between the occupants of the lab at any one time.

Gel electrophoresis and fume hoods do not have a booking system as they are typically used for short period of time. Users requiring access will wait until vacant. Appropriate PPE protecting from chemicals must always be used. Fume hood screen to be wiped down with 70% ethanol before and after use.

Nanodrop, gel imager and ELISA plate readers are shared items with short duration usage and therefore do not have a booking system. Equipment will be cleaned before and after use. Access to equipment only when previous user has finished and left distance of > 2m.

The dark room does not currently have a booking system, because its use is transient, user will follow a stop and wait approach as the occupancy is set to 1 person. Users check occupancy by knocking. Single user only. Once inside, clean gloves are worn to protect user from developer chemicals.

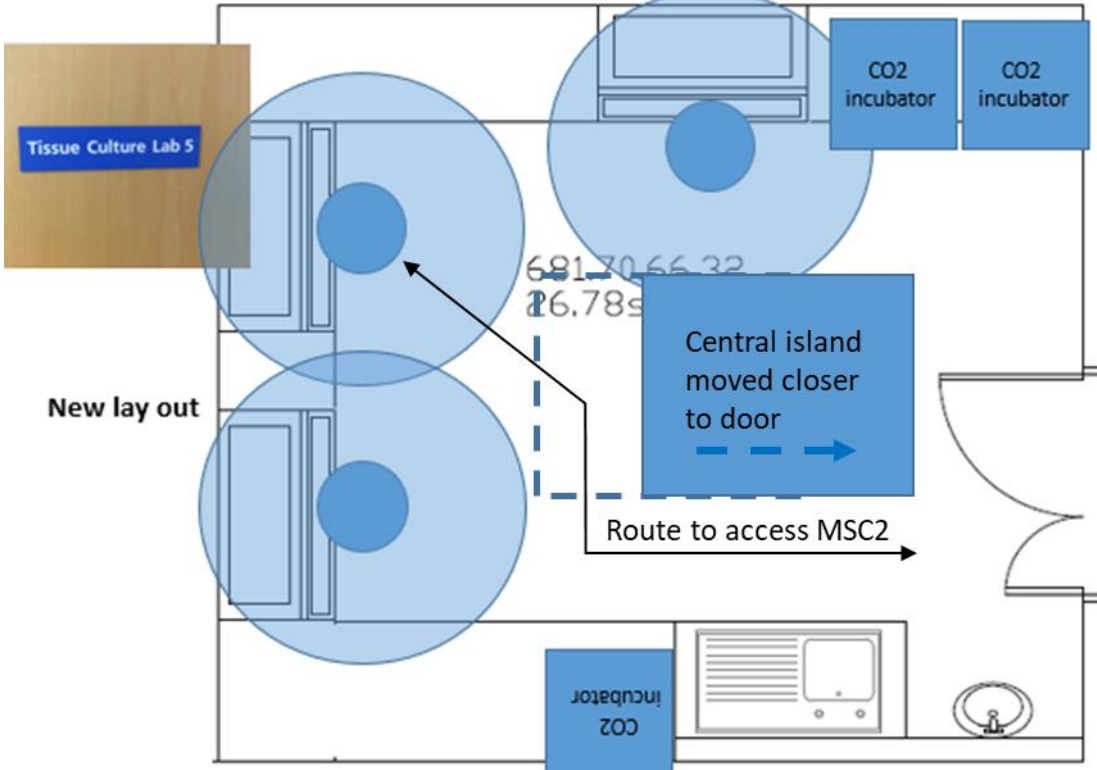
<b>Extent of on-site activity</b> (Indicate all that apply)	<b>Yes or No?</b>
Continually with a single individual occupying the space	<b>No</b>
Continually with different individuals occupying the space one at a time	<b>Yes</b>
Continually with different individuals occupying the space simultaneously with appropriate physical distancing measures	<b>Yes</b>
Occasionally (e.g., a few short visits per day or week to check equipment)	<b>Yes</b>

## **2. REDUCING THE SPREAD OF COVID-19**

### **Travelling To/From Work:**

Outline any foreseeable and significant risks	Outline risk reduction measures to be taken
<b>Personnel with symptoms</b>	No one is to travel to the site if they are experiencing symptoms consistent with COVID-19. Anyone with symptoms must self-isolate and inform their PI immediately, and book a test using the University Early Alert Service: <a href="https://www.ox.ac.uk/coronavirus/health/covid-testing">https://www.ox.ac.uk/coronavirus/health/covid-testing</a>

<p><b>Exposure during travel to/from work</b></p> <p><b>Personnel who may be classed as vulnerable</b></p>	<p>Personnel must not attend the site if anyone in their household is experiencing any symptoms of COVID-19 or self-isolating.</p> <p><a href="https://www.ouh.nhs.uk/working-for-us/staff/covid-staff-faqs-self-isolation.aspx">https://www.ouh.nhs.uk/working-for-us/staff/covid-staff-faqs-self-isolation.aspx</a></p> <p>All lab members are able to cycle or walk to work.</p> <p>Upon arriving at work individuals must either use hand sanitiser or stringently wash their hands for 20 seconds upon arrival, and then regularly whilst on site. Laboratory and toilet sinks are available for hand washing and posters will be displayed for guidance. Use paper towels to dry hands</p> <p>Calendar booking system for equipment and lab bench space will ensure non-overlapping work patterns.</p> <p>No members of the lab are currently identified as vulnerable. However, any concerns about returning to working on site will be discussed and working from home will be implemented where possible.</p>
<b>Safe Distancing in the Building</b>	
Outline any foreseeable and significant risks	Outline risk reduction measures to be taken
<p><b>Passing other in corridor, use of communal space.</b></p>	<ul style="list-style-type: none"> <li>• Face covering to be worn when passing though hospital areas: <a href="https://www.ouh.nhs.uk/working-for-us/staff/covid-staff-faqs-masks.aspx">https://www.ouh.nhs.uk/working-for-us/staff/covid-staff-faqs-masks.aspx</a></li> </ul> <p>As per University policy, all occupants will be wearing face masks whilst working in OUH space.</p> <ul style="list-style-type: none"> <li>• To take shortest route to Level 5 in West Wing (via rear stairs).</li> <li>• Operate a stop and wait policy for others to pass keeping 2m distance.</li> <li>• Keep left in corridors and lifts (2 people max).</li> <li>• Maximum occupancy signs posted outside laboratory.</li> <li>• No visitors allowed on site.</li> </ul> <p>Induction will be given to all staff returning to on site working covering arrangement in place prior to their start date.</p> <p>New starter will be associated with one lab member and work under a “bubble” arrangement, the new starter and the trainer will endeavour to maintain 2m social distancing, however, supervision and training will be required which may take place in close range. As per University policy, users will be wearing face masks whilst working in the laboratory.</p> <p>Supervisor will discuss RTOSW with each staff, carry out the manager checklist and send the completed form to HR.</p>
<b>Safe Distancing in the Lab</b>	

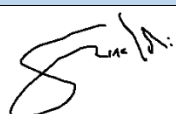

<p>Outline any foreseeable and significant risks</p>	<p>Outline risk reduction measures to be taken</p>
<p><b>Social distancing in laboratory and tissue culture</b></p> <p><b>Use of shared equipment.</b></p>	<ul style="list-style-type: none"> <li>• Stop and wait at safe distance for other user to finish.</li> <li>• Keep left to limit hesitation when passing others</li> <li>• Clean equipment/area before and after use.</li> <li>• Max 4 people from Rinaldi/Bennett groups in LL3 at any one time based on 1 person per bay and one person using cryostat during stage 1 of RTOSW.</li> <li>• Work at lab benches is not to be conducted face-to-face.</li> <li>• 1 person per bay in the main lab at any one time in the first phase of RTOSW , increasing to 2 people every other bay in stage 2, and two people per bay in stage 3 (subject to review)</li> <li>• Hand held equipment is not to be shared without prior decontamination by disinfectant spray.</li> <li>• Consideration of others is key to successful implementation of these plans. Colleagues encouraged to alert each other if guidelines are not being adhered to, and ask that anyone reminded of social distancing guidelines or the need for good etiquette should take such reminders in good grace.</li> </ul> <ul style="list-style-type: none"> <li>• A booking system for the Class II MSC (on Google Calendar/Calpendo) will allow pre-planning of experiments and avoid overlap.</li> <li>• We suggest to relocate the safety cabinet to that there is sufficient space between the three CLII MSC, all 3 will be allowed in use simultaneously. Safety cabinet will be re-validated after relocation to ensure user safety.</li> <li>• A maximum total room occupancy of 3 people in the tissue culture room at any one time will remain.</li> </ul> <p>MSC1: iPSC culture                  MSC2: Primary culture                  MSC3: iPSC culture</p>  <p>The diagram shows a floor plan for 'Tissue Culture Lab 5'. It features three circular biosafety cabinets (MSC) arranged in a row. A central island has been moved closer to the door, as indicated by a dashed arrow and the text 'Central island moved closer to door'. To the right of the MSCs are two CO2 incubators. At the bottom, there is another CO2 incubator and a computer workstation. A dashed line indicates the 'Route to access MSC2'. The text 'New lay out' is written on the left side of the diagram.</p>


	<ul style="list-style-type: none"> <li>• At full occupancy, users will move in concert in a clockwise or anticlockwise path to reach required equipment, such that individuals will not cross paths. The centre island/table within the tissue culture room provides a convenient barrier for individuals to keep their distance when moving around the room.</li> <li>• In the case of a occupancy at MSC3, any user wishing to access MSC2 will pass to clockwise around the central island, avoiding close proximity to the user at MSC1 as they do so.</li> <li>• If individuals require access to equipment near the station of a worker (e.g. centrifuge, microscope, incubator, fridge or freezer) they will either stop-and-wait until the other user is able to temporarily stand aside, or make the encroachment to within 1 m distance as brief as possible (&lt;1 min), keeping back to back, or side to side.</li> <li>• Enhanced cleaning of shared equipment will be applied. 70% ethanol and microsol spray is available to wipe down equipment before and after use. Users will avoid touching and handles, equipment or eye pieces with bare skin</li> </ul> <ul style="list-style-type: none"> <li>• Other shared equipment includes the confocal microscope, calcium imaging system and cryosection machine. These also operate an online booking system. For the confocal microscope and calcium imaging system booking reserves the room for sole occupancy.</li> <li>• Other shared equipment that only requires limited user interaction will be booked for use via calendar next to devices (PCR machine, shaking incubator).</li> <li>• Again all equipment will be wiped down with disinfectant (Chemgene) before and after use, paying particular attention to handles, touch screens etc.</li> <li>• The Cryobank is shared between all members of the department. To ensure no cross-contamination from shared cryo-specific personal protective equipment (PPE) Cryo face shield must be cleaned before and after use with the provided cleaning material. Clean nitrile gloves must be worn under the cryogloves.</li> </ul>
<b>Cleaning Regimes</b>	
Outline any foreseeable and significant risks	Outline risk reduction measures to be taken e.g. availability of hand washing facilities and hand sanitizers
<b>Contamination from work surfaces, door handles etc</b>  <b>Shared equipment</b>	<ul style="list-style-type: none"> <li>• Implement regular hand washing.</li> <li>• Wear gloves for experiments where appropriate and change regularly.</li> <li>• Avoid touching eyes, face and hair when working in lab.</li> <li>• Wipe down all surfaces before and after use.</li> <li>• This include fridges, freezers door handles as well as equipment used for experimental procedures.</li> <li>• All safety cabinet fronts should be wiped down with disinfectant and 70% alcohol before and after use in addition to usual decontamination.</li> <li>• Hand washing facilities are available on either side of the door in tissue culture and in all laboratories, people will be reminded to wash their hand thoroughly before work, during work and after work.</li> </ul>
<b>Personal Protective Equipment</b>	
Outline any foreseeable and significant risks	Outline risk reduction measures to be taken: <i>This is Covid-19 specific PPE beyond that needed for usual lab work</i>

<p><b>OUH embedded space requires PPE</b></p>	<p>Wearing gloves as required in the activity risk assessment, individuals must be reminded of good gloving practice, change their gloves frequently and avoid touching their face whilst wearing gloves.</p> <p>All staff and student accessing sites must have consulted OUH COVID related pages prior to accessing site:  <a href="https://www.ouh.nhs.uk/working-for-us/staff/covid-staff-faqs-masks.aspx">https://www.ouh.nhs.uk/working-for-us/staff/covid-staff-faqs-masks.aspx</a></p> <p>Following University Policy, occupants will be wearing face masks whilst working on OUH site.</p> <p>Individuals will obtain a face mask from the department.</p>
<p><b>Lone Working Additional Precautions</b></p>	
<p>Outline any foreseeable and significant risks</p>	<p>Outline risk reduction measures to be taken</p>
<p><b>No additional risks anticipated with respect to COVID</b></p>	<ul style="list-style-type: none"> <li>• Sign in when working out of hours.</li> <li>• Call emergency contact number on notice board near main entrance.</li> </ul>
<p><b>Communication with the team</b></p>	
<p>Outline any foreseeable and significant risks</p>	<p>Outline risk reduction measures to be taken</p>
<p><b>Missed messages informing changes in policy to onsite working.</b></p>	<ul style="list-style-type: none"> <li>• Regular contact maintained via remote conferencing (minimum weekly meetings).</li> <li>• Mobile phone contact for emergencies during working hours.</li> <li>• Rinaldi team to work closely with Bennett group on shared equipment use and policy (bookings etc) via weekly Teams meeting and by email.</li> </ul>
<p><b>Equipment checks</b></p>	
<p>Outline any foreseeable and significant risks</p>	<p>Outline risk reduction measures to be taken</p>
<p><b>Routine maintenance. Servicing or calibration of frequently used equipment (e.g. CLII MSC)</b></p>	<ul style="list-style-type: none"> <li>• Plan service visits in advance.</li> <li>• Facilities Team must be kept informed of such contractors visit on site.</li> <li>• Block book duration of servicing by contractor.</li> <li>• Avoid use of nearby equipment during that time.</li> </ul>
<p><b>First Aid Cover</b></p>	
<p>Are staff aware of how</p>	<p>Outline risk reduction measures to be taken</p>

to summon first aid and from where?	
First aid information is displayed on notice board near main entrance.	<ul style="list-style-type: none"> <li>• Call emergency contact.</li> <li>• First aid kits located at lab entrances, as well as autoclave room.</li> <li>• Apron and face masks have been added to the first aid boxes.</li> <li>• First aiders will be trained in how to don and doff PPE (OxSTAR video training, PHE video and poster used as reminder inside First aid boxes) which will be provided next to first aid boxes.</li> </ul>

3. MANAGING EXISTING RISKS	
Have existing risk assessment been reviewed:	Yes
Are additional control measures required?	No
Outline any additional control measures below:	
<p>Biosafety survey recently complete, including review of GM microorganism risk assessment (NDCN_GM048).</p> <p>A risk assessment has also been carried out for working with blood samples from former COVID-19 patients confirmed negative for SARS-CoV-2 by PCR in the biosafety level 2 cell culture Class II Microbiological Safety Cabinets. Additional decontamination steps are outlined in 'NDCN SR RA001 COVID-19 Risk Assessment_Rinaldi'.</p>	

4. INTERNAL DEPARTMENTAL REVIEW			
Role	Name	Signature	Date
Manager (proposing risk assessment/work plan)	Simon Rinaldi		11/12/2020
Buildings Manager and DSO (reviewing buildings related elements)	Tiphaine Bouriez-Jones		11/12/2020

5. HEAD OF DEPARTMENT APPROVAL			
Head of Department: (approving risk assessment/work plan)	Prof Kevin Talbot		15 <sup>th</sup> December 2020
Approval Comments			

6. FURTHER REVIEW STAGE	
Review Date	September 2020

INTERNAL USE ONLY

Modifications: Modifications: Revision of supervision arrangements and integration of new University Policy on face coverings

**Review Date** | **November 20<sup>th</sup> 2020**

Modifications:

Update to TC5 occupancy and rules of moving around room at full capacity.