

## APPENDIX 15: Laboratory Risk Assessment for Return to On-Site Working

1. DEPARTMENT DETAILS		
<b>Building:</b> John Radcliffe	<b>Rooms or area:</b> Gene Medicine Group laboratories, rooms: 4826 bays 3-6, 4834A, 4834B, 4834D, 4811, 4836, 4809, 4828, 4826A, 4826D, 4826E, 4822, 4807  Liquid Nitrogen storage: Room 4A10B  GMG members also use lab 4A10A and office 4A120	<b>Risk assessment Version/Date</b> v3 07/06/2021
<b>Head of Department</b>	Professor Deborah Gill	
<b>Department:</b>	Nuffield Division of Clinical Laboratory Sciences	
<b>Academic/Line Manager</b>	Professor Hugh Watkins	
<b>People returning to working on site (status/names)</b>	Research Staff	<b>NAME(S)</b> Altar Munis Kamran Miah Rebecca Dean Catriona Conway Mariana Viegas Toby Gamlen Yue Du Emily Castells Marina Cerezuela Ashwini Kurshan Kurunathan Tina Garland Rosie Munday
	Post graduate students	Omar Habib Dwiantari Satyapertiwi Eoin Mac Reamoinn Aimee Ruffle
<b>Activity Summary</b> ( <i>Types of activities expected &amp; authorised to take place – brief description of the experiments and equipment used</i> )		
Activities in the room listed above fall into two categories:		
<ol style="list-style-type: none"> <li>1. A virus production team consisting of 4 members of staff using tissue culture bioreactors to produce lentiviral gene therapy vectors. This entails nucleic acid cloning and extraction, tissue culture, virus production and virus quantification by qPCR. This team have been operating during lockdown to produce viruses for Gene Medicine Group (GMG) SARS-CoV2 projects and have been coordinating working patterns around laboratory tasks to limit the number of staff on site.</li> <li>2. Postdoctoral research staff and post graduate students pursuing individual research projects themed around developing gene therapy treatments for lung infections and genetic disorders. These projects utilise a wide range of molecular biology techniques including but not limited to cloning, qPCR,</li> </ol>		

immunohistochemistry, lentivirus and AAV vector production, tissue culture viral transduction, microscopy, plate based assays, flow cytometry. These researchers operate physically independently of each other and determine their own experimental schedules under the supervision of Prof. Gill. A number of projects relating to SARS-CoV2 are currently underway and requiring researchers to be onsite now. The details of distancing measures currently in place can be found below and will be expanded as more researchers return to site.

At present our facilities can hold a maximum of 11 researchers at any one time with coronavirus distancing measures in place. Tina Garland is recording staff working plans on a weekly basis and an early/late shift system will be employed to maximise research activities whilst minimising on site numbers at any one time.

#### Shared use?

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

Kitchen (4826D) and walkway through main lab (4834) shared with ORB/OCHRe

Kitchen space is being limited to 2 occupants at a time and facilities altered as described below. One of the two microwaves from this room has been moved from the kitchen to the ORB office space to further reduce staff mixing in this room. The GMG fridge has been moved from the PhD student office into the kitchen to prevent staff having to access this office to use the fridge.

Researchers are regularly reminded of need for social distancing in the shared walkway space and 2 metre gradations are marked on the corridor floor with tape to illustrate required distancing.

A GMG/ORB/OCHRe email distribution list has been established and used to communicate social distancing regulations, updates and emergency information.

GMG researchers also require access to the liquid nitrogen storage facility in room 4A10B. Users will be reminded of the need for social distancing when using the buddy system in this room and that the buddy will need to remain on the room threshold rather than entering the room to ensure appropriate distancing.

Lab 4A10A and office 4A120 is now used by the GMG virus production team. The lab space is shared with members of the Banham research group but social distancing can be maintained as they tend not to use their bench spaces during the day. Members of the Kerr and Irshad research groups also have access to equipment and the cold room in 4A10A. Office 4A120 is shared with one member of the Banham research group although they are currently working remotely writing their thesis. Seating has been arranged to comply with social distancing and windows can be opened to increase ventilation.

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

## 2. REDUCING THE SPREAD OF COVID-19

### Travelling To/From Work:

*Outline any foreseeable and significant risks*

*Outline risk reduction measures to be taken*

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<p>Risk of infection for staff/students using public transport to travel to work</p>	<p>Laboratory members encouraged to avoid public transport where possible and where unavoidable, to follow any legal requirements about social distancing and the use of PPE on public transport.</p> <p>If staff are required to be on site and cannot avoid public transport for commuting, discussion with the individual concerned will take place to determine if working hours could be shifted to avoid travel during peak hours.</p> <p>Staff will work on site only for critical research time and be encouraged to continue working from home wherever possible (TBD individually and with entire group at weekly lab meeting)</p> <p>How staff commute will be recorded in the work pattern spreadsheet (detailed later in this section) by Tina Garland to track staff using public transport as they will be at the highest risk.</p> <p>Staff will be reminded about the need for thorough hand washing on arrival and prior to exiting the laboratories.</p>
<p><b>Safe Distancing in the Building</b></p>	
<p><i>Outline any foreseeable and significant risks</i></p>	<p><i>Outline risk reduction measures to be taken</i></p>
<p>Risk of infection in hospital setting high</p>	<p>Remind lab members to avoid hospital areas with high traffic throughput (main entrances, shops etc.) and to access the laboratory through the academic block entrance to minimise exposure to clinical staff and patients.</p> <p>Staff must follow Trust circulation pattern guidelines where possible in hospital corridors/stairwells and maintain appropriate social distancing where corridors are not wide enough for circulation patterns.</p> <p>Face masks must be worn in all hospital areas including the GMG laboratories. These are provided by the Medical Sciences Division.</p> <p><b>A maximum of 4 individuals are permitted to use the North lifts</b> at any time allowing social distancing of 2m, use of lift P is limited to one individual at a time and staff have been encouraged to use the stairs wherever possible.</p> <p>Staff will be encouraged to bring own supplies of food and drink to avoid having to use hospital shops and canteens as well as to take breaks outside, weather permitting, where risk of transmission is lower.</p> <p>Staff will be asked that when using multi-user toilets, they should ensure that they keep safe distance by not entering the toilets if someone is already inside and to wait outside the toilet for an available cubicle / urinal. Notices have been positioned outside the toilets to this effect and socially-distanced waiting points have also been marked on the floor.</p> <p>Staff will be reminded about the need for thorough hand washing on arrival, and prior to exiting, the laboratories with signage placed on the outside of both lab entry doors and by hand wash sinks in the lab.</p>

<b>Safe Distancing in the Lab</b>	
<i>Outline any foreseeable and significant risks</i>	<i>Outline risk reduction measures to be taken</i>
Limited floor space and current researcher numbers presents infection risk	<p>Government guidelines for social distancing will be implemented using the following methods:</p> <p>On site researcher numbers and working schedules are being monitored on a daily/weekly basis and recorded by Tina Garland in an Excel spreadsheet. This allows for numbers to be limited if the maximum occupancy of 11 onsite researchers will be exceeded on any given day.</p> <p>A rota system has been agreed with researchers offering early, late and weekend shifts to accommodate equitable lab access. These will be booked in advance. If this results in a sustainable pattern of working for specific individuals, we will look towards generating bubbles/teams to reduce risk.</p> <p>Should the number of people requiring onsite access exceed the maximum occupancy this rota system will be employed but has not yet been required. The rota information will be accommodated using the current monitoring system.</p> <p>Bench space will be assigned for single users. Our lab users do not currently hot bench and will be reminded not to do so. Shared pieces of equipment such as tissue culture hoods, ddPCR machines etc. are currently being booked by users for single operator use with online calendars to reduce shared space occupancy. These protocols will continue and be expanded if required.</p> <p>Appropriate PPE will be used (gloves, lab coats, eye protection and masks). Shared space usage will be altered as follows and signage put up in the lab to remind users of the guidance on space usage, hand washing and social distancing:</p> <ul style="list-style-type: none"> <li>• Staff will work back to back where equipment, protocols and floor plans allow.</li> <li>• Office seating plans will be altered to reduce occupants from 4 to 2.</li> <li>• Kitchen access will be limited to 2 occupants at any time.</li> <li>• Small lab rooms (e.g. wash up room) will be limited to 1 occupant at a time.</li> <li>• Lab bay usage will be limited to 2 researchers operating back to back, on opposite sides of the bay</li> </ul> <p>Staff will be encouraged to continue working from home for all non-essential activities.</p> <p>A screen will be placed between the microtome and write up area facing each other between bays 2/3 in laboratory room 4834 and between the write up areas between bays 3/4 and 4/5.</p> <p>Staff will be instructed not to share personal items (such as pens and lab coats) and to clean down communal items such as face shields, printers and</p>

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	<p>phones with antimicrobial wipes which will be stationed with such items before and after use.</p> <p>Sanitising hand gel will be provided at both entrances to the laboratory to be used on entry and to supplement hand washing protocols. Signage on the exterior doors will emphasis requirement for hand washing on entry and indicate location of hand gel</p> <p>Both doors to the lab require key card access. Pre-scheduled visitors to the GMG will be informed of hospital, departmental and laboratory SARS-CoV2 protocols by email prior to arrival and required to adhere to them for the duration of their visits. The greater number of visitors is to OCHRe and we will liaise with that group to suggest they use one entrance only, which is closest to their main office to minimise visitor walk-through of main lab.</p>
<p><b>Cleaning Regimes</b></p>	
<p><i>Outline any foreseeable and significant risks</i></p>	<p><i>Outline risk reduction measures to be taken e.g. availability of hand washing facilities and hand sanitizers</i></p>
<p>Improper/incomplete cleaning may present infection risk. Estates cleaning supply security?</p>	<p>Additional supplies of hand sanitiser and soap have been secured to ensure supplies are available to cover possible shortages of supply from estates.</p> <p>Hand gel stations have been established at both lab entrances and staff will be instructed to use sanitise their hands on entering or leaving the laboratory either by washing or using hand gel. Signage will be put up to this effect.</p> <p>Practices for the use of the shared kitchen have already been changed to reduce occupancy and usage of this space. Users now bring in their own kitchenware which will be washed, dried and removed after use rather than using communal kitchenware. The drainer has been removed for foreseeable future.</p> <p>Disinfectant wipes/sprays are available to clean frequently touched points throughout the laboratory such as the kettle, main door handles and taps. Responsibility for frequently-touched point cleaning has been added to the weekly lab wash-up rota ensuring a single member of staff disinfects touch points each day of their assigned week.</p> <p>Staff will be required to disinfect their designated work spaces at the end of each day. In addition bench spaces for pre-booked shared equipment will be disinfected at the end of each use.</p> <p>NHS estates cleaning staff clean the communal surfaces in the kitchen daily and will continue to do so.</p> <p>Researchers will be reminded during weekly lab meeting to keep lab benches clean and to disinfect their working spaces with IMS at the end of every shift. In addition researchers will be instructed to disinfect all equipment touch points after use.</p>

<b>Personal Protective Equipment</b>	
<i>Outline any foreseeable and significant risks</i>	<i>Outline risk reduction measures to be taken:</i> <i>This is Covid-19 specific PPE beyond that needed for usual lab work</i>
Supply? Compatibility of PPE with work environment? Risk of infection from insufficient PPE?	<p>The hospital is providing PPE masks in main entrances (academic and patient) and staff will be instructed to adhere to the hospital policy that face masks must be worn at all times. The Medical Sciences Division will be ensuring continuous supply of face masks to NDCLS.</p> <p>In general screens are not an appropriate measure due to the bench footprints and equipment sizes, however a screen will be placed between the microtome in bay 2 and write up space in bay 3 as well as the face to face write up areas between bays 3/4 and 4/5 where users must face each other.</p> <p>Ensure standard laboratory PPE (gloves, lab coats, eye protection) are used properly in the lab to prevent potential contamination of laboratory equipment, environment and colleagues.</p> <p>Lab coats are not shared between individuals and currently regularly removed, laundered and replaced. This process will continue.</p> <p>Researchers will be required to disinfect any items of shared PPE such as face shields for gel extraction or the aprons/face shields in the liquid nitrogen storage facility with disinfectant wipes/sprays at each use.</p>
<b>Lone Working Additional Precautions</b>	
<i>Outline any foreseeable and significant risks</i>	<i>Outline risk reduction measures to be taken</i>
None above and beyond normal lone working risks	<p>No additional measures taken.</p> <p>Out of hours working buddy system for permitted procedures and <i>WhatsApp</i> messaging process in place and will continue.</p> <p>Staff aware of various activities that should not take place outside of normal working hours or in lone working situations such as cryostat, liquid nitrogen handling or gas cylinder work.</p> <p>A list of staff within NDCLS who can be contacted for advice if required during lone working has been circulated amongst all group members.</p>
<b>Communication with the team</b>	
<i>Outline any foreseeable and significant risks</i>	<i>Outline risk reduction measures to be taken</i>
Altered work patterns could reduce discussion of reinforcement of measures	<p>A regular weekly online meeting with all team members is already in place; we use this forum to discuss, and reinforce, current procedures and potential improvements.</p> <p>Wherever possible face-to face-meetings have been replaced by online meetings to reduce infection risks.</p> <p>Signage to be put in place detailing wash stations, room occupancy limits and social distancing measures.</p>

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	RTOSW working inductions will be carried out with individuals on their return to site.
<b>Equipment checks</b>	
<i>Outline any foreseeable and significant risks</i>	<i>Outline risk reduction measures to be taken</i>
None above and beyond normal working practices	<p>Researchers will be informed of any service engineer visits to ensure social distancing can be maintained and equipment use planned around repair work.</p> <p>Air conditioning is regularly serviced and maintained. If air-con use is required, fan speed should be set to LOW, and working within 2m of outlet grilles should be avoided. Windows should be opened to improve air circulation if possible, especially in spaces that have an occupancy limit of more than one person.</p>
<b>First Aid Cover</b>	
Are staff aware of how to summon first aid and from where?	Outline risk reduction measures to be taken
Yes	<p>First aid box located on shelves above lab manager write up space in bay 3 room 4834.</p> <p>GMG does not currently have any certified first aiders on staff but researchers are aware to seek medical support from the John Warin ward or A&amp;E if required.</p> <p>First aid boxes have been stocked with additional COVID-specific PPE and updated first aid advice.</p> <p>From August 2021, NDCLS will also have named first aiders who can be called on.</p>

**3. MANAGING EXISTING RISKS**

<i>Have existing risk assessment been reviewed:</i>	<b>Yes / No</b>
<i>Are additional control measures required?</i>	<b>Yes / No</b>
<i>Outline any additional control measures below:</i>	
<p>In the event that the fire alarm sound continuously and it is necessary to evacuate the building, procedures of evacuation remain the same as before the start of the COVID19 pandemic. The fire assembly point for staff working on Level 4 is in the square outside the Tingewick Hall and for staff working in Level 1 is staff car park L (between the blood donor centre and the trauma unit). Face masks must be worn when waiting at fire assembly points as it will be difficult to keep a 2m distance.</p>	

**4. INTERNAL DEPARTMENTAL REVIEW**

Role	Name	Signature	Date
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<b>Manager</b> (proposing risk assessment/work plan)	Deborah Gill		2020 07 27
<b>Buildings Manager</b> (reviewing buildings related elements)	Dr Amanda Anderson		28/07/2020
<b>DSO</b> (reviewing risk assessment)	Dr Amanda Anderson		28/07/2020

**5. HEAD OF DEPARTMENT APPROVAL**

Head of Department: (approving risk assessment/work plan)	Name	Signature	Date
	Deborah Gill		2020 08 13
<b>Approval Comments</b>			

**6. FURTHER REVIEW STAGE**

<b>Review Date</b>	<b>06/12/2020</b>
<p>Modifications:  Head of division and line manager changed (P1). Number of group members that can be safely accommodated updated based on experience (P2 &amp; P3). Minor working changes to reflect that actions proposed in version 1 have been implemented (P2 &amp; P5). Clarifications made regarding the requirement for face masks in NDCLS spaces (P3 &amp; P5). Updated working regarding use of multi-user toilets to reflect current practices (P3). Additional text to clarify lone working arrangements (P6). Text added to expand on first aid arrangements (P6).</p>	
<b>Review Date</b>	<b>07/06/2021</b>

**Modifications:**

Additional researchers have been added to list of staff working on site including new starters and returning members (P1). Limit of onsite numbers remains at 11. Text added to reflect new locations for virus production team (P1-2). Text added to address ventilation and use of air-conditioning systems (P2, P7). Wording changed in line with Trust's updated lift occupancy policy (P3). Wording changed regarding responsibility for touch point cleaning (P5). Text added to reflect updated first aid arrangements (P7).