

APPENDIX 15: Laboratory Risk Assessment

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		
Building: JR Hospital, West Wing, Level 5	Rooms or area: Tissue culture room (05.66.26) Large Lab 2 (LL2) Microscope room (50.66.27)	Risk assessment Version/Date 17/12/2021 V 4.3
Head of Department	Prof. Kevin Talbot	
Department:	NDCN	
Academic/Line Manager	Sarosh Irani/Paddy Waters	
People returning to working on site (status/names)	Staff postdoctoral scientists, technicians – group 1	NAME(S) Deniz Akdeniz Mateusz Makuch Andrew Fower Hannah Fox Cathrin Gudd Robyn Williams Callum Board Ruyue Sun Meng Zhao
	Post graduate students – group 2	Sophie Binks Bo Sun Sofija Paneva Halwan Bayuangga Pao Sheng Chang Ruby Harrison Philip Ambrose
	Visitors – group 3	Prof. Erdum Tuzun (and one accompanying PDRA) Nick Willcox Min Gyu Tania Kawasaki de Araujo Gary Alvarez Barbara Wagner Stefano Masciocchi Hye Lim Lee
Activity Summary (Types of activities expected & authorised to take place – brief description of the experiments and equipment used)		
<p>Tissue culture: propagating and transfecting cell lines using chemical reagents, stimulating and expanding B cell clones to assess the antibody production. Media changes and cell lysis. Thawing and staining cells for</p>		

flow cytometry/ cell sorting. Isolation and freezing of cells from human blood. Equipment used: Microbiological safety cabinets, centrifuges, cell counter, pipetting robot, incubators, microscopes.

Large Lab 2/ Microscope room:

>Molecular biology: preparing plasmids and cloning antibodies and gene fragments into vectors. This includes PCR amplification of fragments, enzymatic digestion, agarose gel electrophoresis, bacterial transformation and selection on plates, growing bacteria in suspension for plasmid amplification and subsequent plasmid purification using available Kits. Equipment used: mini centrifuge, PCR cabinet, gel electrophoresis chamber, blue light illuminator, shaking incubator (bacterial), standard incubator (bacterial).

>Protein biochemistry: purification of protein fractions from cell culture supernatants, purity and quality check. Equipment used: AKTA Xpress protein purification system, horizontal protein electrophoresis chambers,

>Functional and characterisation assays: cell-based assays for the detection of antigenic targets of antibodies as well as ELISAs for quantification of total immunoglobulin levels in human serum and cell culture supernatants. Equipment used: aspirators, electronic pipettes, fluorescent microscopes, plate reader for colorimetric assay.

Shared use?

Is the space shared with individuals from other departments? If yes, please list the departments concerned
No

Extent of on-site activity (Indicate all that apply)	Yes or No?
Continually with a single individual occupying the space	No
Continually with different individuals occupying the space one at a time	Yes
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)	Yes

2. REDUCING THE SPREAD OF COVID-19

Travelling To/From Work:

Outline any foreseeable and significant risks	Outline risk reduction measures to be taken
Personnel with symptoms	<p>No one is to travel to the site if they are experiencing symptoms consistent with COVID-19.</p> <p>Anyone with symptoms must self-isolate and inform their PI immediately, and book a test using the University Early Alert Service: https://www.ox.ac.uk/coronavirus/health/covid-testing</p> <p>Personnel must not attend the site if anyone in their household is experiencing any symptoms of COVID-19 or self-isolating. https://www.ouh.nhs.uk/working-for-us/staff/covid-staff-faqs-self-isolation.aspx</p>
Personnel who may be classed as vulnerable	<p>If classed as a vulnerable person, the person should not come to work but instead contact the line manager and HR for advice, a specific risk assessment will be carried out.</p>

<p>Exposure during travel to/from work</p> <p>Self-isolation</p>	<p>Use of private vehicles and bikes when commuting to work and minimising the use of public transport when possible and complying to mask-wearing policy when other means of transport are not available.</p> <p>OUH rules indicates that even if double vaccinated, people that have been found to be close contact to a Covid positive case, must take a Covid Test (on the day of notification) as well as daily lateral flow test for the following 10 days in order to work on site.</p> <p>If the close contact is someone from their household, the person is not able to work on site unless they take part in OUH Test to Return (ouh-tr.staffcovidtesting@nhs.net), have a specific risk assessment for their return to work, being triple vaccinated and having daily negative LFT.</p>
<p>Safe Distancing in the Building</p>	
<p>Outline any foreseeable and significant risks</p>	<p>Outline risk reduction measures to be taken</p>
<p>Non compliance</p>	<p>OUH policies for social distancing must be followed at all time.</p> <p>As per University policy, all occupants will be wearing face masks whilst working in OUH space. Some exemptions exist, those are:</p> <ul style="list-style-type: none"> • Individual who cannot wear it for legitimate reasons (health condition, lip reading) • When eating/drinking in dedicated areas • Staff working with protective screens • When alone in single occupancy offices • When seated at a desk if face to face interaction is consistently prevented. <p>Maximum occupancy signs will be posted outside laboratories, Special Labs, and tissue cultures.</p> <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> <p>No visitors are allowed on site, unless it is for the maintenance of an essential equipment or service.</p>
<p>Safe Distancing in the Lab</p>	

Outline any foreseeable and significant risks

Outline risk reduction measures to be taken

Social distancing in laboratory and tissue culture

Stop and wait approach will be followed in corridors and shared areas to maintain social distancing at all time.

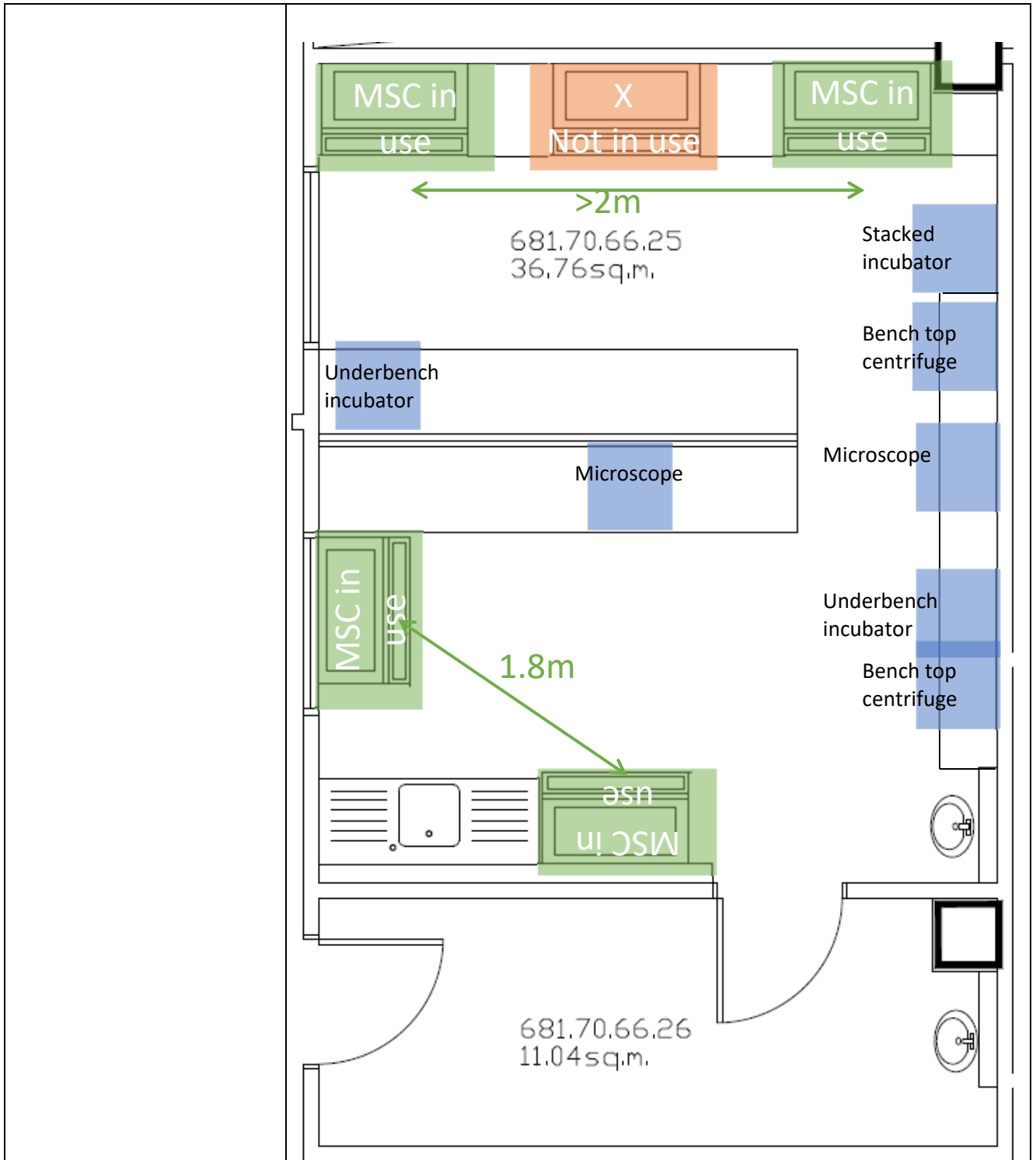
Booking system is in place for the TC cabinets. Only members of the Irani and Waters research group are to book those safety cabinets.

Shared equipment and space

'One person moving' rule in the TC has been implemented. This means if someone is moving around, all others must wait for that person to be seated again or out of TC before they can move. The users are encouraged to book a cabinet that is next to the relevant incubator to minimise traffic within the TC and close contact. Centrifuges and other shared equipment are located on the side bench or in the areas where their use doesn't interfere with other people working in the safety cabinets.

Where closer than advised 2m distance can't be maintained at all times, the duration will be kept to minimum and with particular attention to avoiding face to face contact. Only one set of incubators is in close proximity to a safety cabinet, however the door swing provides additional barrier between the two users during routine operations (moving flasks in and out). Extended access to the incubators is only allowed when the safety cabinet user is not present or asked to temporarily step away from their cabinet. Access to the 'dirty' sink is only possible if the cabinet next to it is unoccupied.

The occupancy has been reviewed and we are suggesting a maximum of 4 people in TC at any one time, most safety cabinets are situated 2m apart, two safety cabinets are closer at 1.8m, Occupancy of these two cabinets should be the last option in TC and kept to as minimum time. Be aware that this distance represents close contact and in the event of a positive covid test for one person, both will have to self-isolate for 14 days.



For all shared equipment, enhanced cleaning is in place. All shared equipment and common surfaces must be cleaned after use i.e., incubator knobs, hoods, etc.

Designation of workstations within the main lab, so people are never directly facing each other. Limit to the number of people working in a single aisle to one in the first instance to allow for freedom of movement and access to the equipment while allowing for the 2m distance to be kept at all times. Equipment will be moved to allow for better access.

	<p>Booking system is in place for any lab related work and for the shared equipment.</p> <p>In the microscope room only 2 out of 4 microscopes can be booked and used at any one time to allow for social distancing.</p> <p>At a later time, working groups (bubbles) will be considered when more people will be allowed to return to work, this risk assessment will be reviewed prior to expanding work activities on site.</p>
Cleaning Regimes	
Outline any foreseeable and significant risks	Outline risk reduction measures to be taken e.g. availability of hand washing facilities and hand sanitizers
Shared equipment	<p>Wiping all workstations/equipment with appropriate disinfectant before and after use.</p> <p>All hoods to be wiped down with 70% alcohol before and after use.</p> <p>Hand washing facilities are available on either side of the door in TC and in all laboratories.</p>
Personal Protective Equipment	
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>
OUH embedded space requires PPE	<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: https://www.ouh.nhs.uk/working-for-us/staff/covid-staff-faqs-masks.aspx</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>
Teaching activities	
Outline any foreseeable and significant risks	Outline risk reduction measures to be taken
Supervision of lab-based projects	<p>Inductions will be given to the students covering safety measures for on-site working, prior to their start date.</p> <p>Students will be associated with one lab member and work under a “bubble” arrangement.</p> <p>Students and supervisors will adhere to 2 m social distancing rules, where possible. As training of particular laboratory techniques will require to take</p>

	<p>place in close range, face masks will be worn at all times whilst working on site.</p> <p>Students will only carry out essential experimental work in the laboratory. Incubation times can be used to answer urgent questions, whilst following University policy and maintaining social distancing. All non-experimental work (e.g. planning of experiments, literature review, data analysis, write-up of lab reports) is to be completed at home. Results and interpretation of experiments will be discussed remotely using Teams.</p>
Lone Working Additional Precautions	
Outline any foreseeable and significant risks	Outline risk reduction measures to be taken
No additional risks anticipated with respect to COVID	
Communication with the team	
Outline any foreseeable and significant risks	Outline risk reduction measures to be taken
No additional risks anticipated with respect to COVID	All lab and group meetings have been scheduled to take place online until further notice since the beginning of the lockdown. WhatsApp and Teams groups are set up to coordinate the work and lab time.
Equipment checks	
Outline any foreseeable and significant risks	Outline risk reduction measures to be taken
External contractor accessing the laboratory	<p>Only essential service visits will be allowed. The service provider will be informed about the rules under which accessing the site is allowed, including requirements for social distancing and compulsory protective measures. (NDCN Safety Policy 0016: Contractors on site)</p> <p>PPE will be provided, and the area will not be in use by any staff members for the duration of service. Equipment will be thoroughly cleaned with disinfectant and 70% IDA before and after service.</p>
First Aid Cover	
Are staff aware of how to summon first aid and from where?	Outline risk reduction measures to be taken
Yes	Clear email communication prior to lab members entering the lab, with regards to location of all first aid boxes, first aid contact numbers and hospital switchboard extension being zero

3. MANAGING EXISTING RISKS

Have existing risk assessment been reviewed:	Yes / No
Are additional control measures required?	Yes / No
Outline any additional control measures below:	

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4. INTERNAL DEPARTMENTAL REVIEW			
Role	Name	Signature	Date
Manager (proposing risk assessment/work plan)	Sarosh Irani		23-12-20
Manager (proposing risk assessment/work plan)	Patrick Waters		23-12-20
Buildings Manager & DSO (reviewing buildings related elements)	Tiphaine Bouriez-Jones		6/01/2021
5. HEAD OF DEPARTMENT APPROVAL			
Head of Department: (approving risk assessment/work plan)	Kevin Talbot		22/1/2021
Approval Comments			

6. FURTHER REVIEW STAGE	
Review Date	September 2020
Modifications: Revision of supervision arrangements and integration of new University Policy on face coverings	
Review Date	January 2021
Modifications: Review of measures in line with change of BCP, review in line with new FHS students	
Review Date	March 2021
Modifications: Assessment of Tissue Culture increased occupancy	
Review Date	July 2021
Modifications: update of staff working on site.	
Review Date	September 2021
Modifications: Review of RA in light of GCP change, update of procedures and staff.	
Review Date	October 2021
Modifications: Update of staff.	
Review Date	December 2021

Modifications: Update of staff and update of OUH self-isolation guidance