

Blizard Institute

4 Newark Street, Whitechapel, London. E1 2AT

Health & Safety Code of Practice for Office and Laboratory Staff

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Health and Safety Management in the Blizard Institute

Blizard Institute Health and Safety Management Policy Statement

The Blizard Institute regards the health, safety and welfare of its staff and students as of major importance and recognises the vital role that good health and safety practices have in the workplace. Health, Safety and Welfare is managed using the Queen Mary University of London's (QMUL) Health & Safety Policy as a minimum standard and in accordance with the Health & Safety at Work Act etc. 1974. The Institute will make available resources of time and money as far as reasonably possible, in order to fully implement the QMUL Health and Safety policy. It will encourage and arrange for training and instruction of staff in health and safety matters in order to ensure that safe systems of work are practiced throughout the Institute.

Blizard Institute Arrangements for Health and Safety

The Institute has three Safety Coordinators appointed, who will advise and assist with health and safety related issues in the Institute and who will have specific responsibility for oversight of health and safety within office and administrative areas. Laboratories will also appoint a local individual responsible for health and safety (either the Laboratory Manager or a local safety officer), along with Fire Marshals, First Aiders and Radiation Protection Supervisors as appropriate. The local responsible person will assist and ensure suitable and sufficient risk assessments are carried out and reviewed regularly by staff or line managers for all work activities involving hazards. They will also ensure all health and safety related equipment within their area of responsibility is adequately maintained.

Health and Safety issues will be recorded at the Blizard Health and Safety Committee which will meet three times per year and annual local health and safety inspections will occur for each Institute work area along with regular monitoring checks.

Mandatory health and safety inductions will be provided for all new members of staff and appropriate manuals and guidance for health safety at work will be provided through the Blizard web page/Notebook and the QMUL Health and Safety Directorate website.

Signed: 

Professor Mary Collins (Blizard Institute Director)

Date: 07/07/2023

1. Health & Safety Rules

Staff, students and visitors to Queen Mary University of London (QMUL) must observe and comply with University and Blizard Institute Health and Safety (H&S) Rules.

Staff are reminded that the Health and Safety at Work Act (1974) states that it shall be the duty of every employee while at work:

- a) To take reasonable care for the health and safety of themselves and other persons who may be affected by their acts or omissions at work;
- b) To co-operate with their employer in implementing the provisions of the Act.

The Management of Health and Safety at Work Regulations (1999) requires that a suitable and sufficient assessment is made of ALL hazards/risks arising from work, for employees and anyone (students, visitors, others) who might be affected by the work.

The 'employer' in this context is Queen Mary University of London (QMUL) and the Council has overall accountability for Health and Safety within the University; the President and Principal of QMUL has the responsibility for effective implementation of the H&S policy and plan. Responsibilities are then delegated to Vice Principals, Director of Institutes, Heads of Schools, and so on.

The QMUL Health and Safety policy, topic policies, arrangements, procedures, forms, and topic guidance can be accessed at <http://www.hsd.qmul.ac.uk/>. Specific Code of Practice checklists for all QMUL Managers/Supervisors are found at <http://www.hsd.qmul.ac.uk/a-z/management-of-health-and-safety/> and all managers and supervisors are recommended to use them to 'plan, do, check and act/review' for H&S.

QMUL also abides by the principles of best practice in H&S management as prescribed by the Universities and Colleges Employers Association (UCEA) contained in 'Leadership and management of health and safety in higher education institutions' and supplementary publications contained at <https://www.ucea.ac.uk/en/empres/hands/publications/index.cfm>

Please email or contact the QMUL Health & Safety Directorate (HSD) and the Blizard Institute H&S Coordinators for assistance with H&S topics and issues. QMUL HSD H&S Manager/Adviser positions covering the School of Medicine & Dentistry, specialist H&S/fire safety topic contacts and the H&S helpdesk contact details are listed here <http://www.hsd.qmul.ac.uk/contact-us/>

2. Staff, Student and Visitor Induction

Information on QMUL induction procedures is covered at [Induction - Organisational and Professional Development \(qmul.ac.uk\)](http://www.qmul.ac.uk/induction-organisational-and-professional-development)

All new staff, students and visitors intending to work within the Blizard Institute must attend a local induction session covering various aspects of how the building works with particular attention being paid to H&S and evacuation procedures. Centre Managers and Administrators within the Institute will organise the induction process. When new staff, students or visitors are intending to work in the laboratories, an outline of the standard operating procedures within the

building will be provided together with details regarding the H&S documentation that is required prior to the commencement of any laboratory activity. An induction form signed by the Blizzard Institute Manager and Laboratory Management will be required before access to the building can be authorised.

Students and visitors are admitted only at the discretion of the Blizzard Centre Lead and Blizzard Laboratory Management. Such visitors are also responsible for the maintenance of a healthy and safe place of work and this should be made clear to them by advice and by example.

Further guidance can be located on the [Blizzard Laboratory Management Notebook](#), specifically *SOP LM8a Inductions - laboratory and office* and *SOP LM8b Inductions - office only*.

3. Mandatory Health and Safety Training

Links to the QMUL H&S training can be accessed at <http://www.hsd.qmul.ac.uk/training/online-learning/>

It is mandatory that **all new members of staff, postgraduate students and academic/research visitors** must complete the **Fire Safety Awareness** on-line training course **within the first two weeks of employment/study**. Please ensure that you read the guidance available on the above web page before you start the module. Training must be repeated every two years.

It is mandatory that **all new members of staff using computers for work** must complete the online training course for **Display Screen Assessment (DSE) within the first six weeks of employment**.

Please request a passcode by following the links on the above web page in order to gain access to the system. Generally, you must complete a DSE assessment every three years, but you can do it sooner if you are hot-desking, moving desks/office, or your workstation set up changes considerably e.g. pregnancy, change in eyesight or suffer an injury.

All postgraduate students using computers for work are recommended to complete the Appendix 1 checklist of the Display Screen Equipment Policy, Arrangements and Guidance documents that can be accessed at http://www.hsd.qmul.ac.uk/a-z/dse_eye-care/. Any arising issues/remedial actions should be discussed with their supervisor **within the first six weeks of study**.

All new members of staff, undergraduate students, postgraduate students and academic/research visitors who will be accessing the laboratories must also complete the following mandatory online training courses within the first two weeks of employment/study:

- Safe Management of Laboratory Hazardous Waste
- First Aid for Laboratory Workers
- Fire Safety

All staff, postgraduate students and longer term academic/research visitors working in laboratories will need to complete the training matrix that can be accessed at <http://www.hsd.qmul.ac.uk/training/>.

You have two weeks in which to book a place on a course that is taking place within the next three months. Mandatory taught courses include:

- Working Safely with Biological Hazards (HS020)
- Refresher- Working Safely with Biohazards and GM Agents (HS030)
- Hazardous Substance Risk Assessment (COSHH) (HS005)
- Refresher- Hazardous Substance Risk Assessment (COSHH) (HS015)
- Containment Level 3 Principles and Practices (HS019) - for those who are to work at Containment Level 3 or need a refresher
- GM Risk Assessment and Notification (HS029) – for those intending to conduct GMO laboratory work.

If a place on the course you require is not available, you cannot find the course you are looking for, do not know what to book or how to book please either visit <http://www.hsd.qmul.ac.uk/training/> or email hs-helpdesk@qmul.ac.uk

Other H&S topic courses which can assist improvement of H&S of your own work or lab area are also available – details in the above web link.

Non-attendance on a mandatory H&S training course on which you have been booked will be reported to Blizzard Institute Management. Your access to the lab may be revoked as a result.

4. QMUL Occupational Health

Occupational Health is a distinct branch of preventative health care which works to promote health in the workplace and forms a part of the overall health and safety management system, focusing on the management of work-related health risks. This can include, and is not limited to, the prevention of work/study related ill-health, facilitating rehabilitation after illness and injury, and promoting physical and mental wellbeing.

Occupational Health provides advice to all levels of personnel within QMUL. QMUL has appointed OHWorks to provide occupational health services to staff and students. OHWorks is a specialist occupational health provider with considerable experience of delivering services to universities.

Employees can contact the OH team by emailing qmulstaff@ohworks.co.uk

Students can contact the OH team by emailing qmulstudents@ohworks.co.uk

Information regarding the services provided by OHWorks and details on how to book an appointment can be accessed at <https://hr.qmul.ac.uk/occupational-health/>

Pre-employment screening- immunisations and Respiratory Protective Equipment

New personnel (staff/postgraduate students) should complete a [pre-employment questionnaire](#) as soon as possible after commencing employment/study. This will be reviewed by an Occupational Health advisor and further explored by either a telephone conversation or physical baseline health screen as required. This is particularly important for:

- Anyone intending to work with human tissue or blood should ensure that they are adequately covered for Hepatitis B and other relevant blood borne agents. This includes staff who will be working within the Biological Services Unit (BSU).
- Anyone exposed to respiratory sensitizers requiring Respiratory Protective Equipment (RPE). This includes staff who will be working within the Biological Services Unit (BSU). This is determined by a physical base-line health screen and an individual 'Risk assessment for Respiratory Protective Equipment Selection' completed as per the document [Health Surveillance Compliance Procedure for Activities in the Biological Service Units or Similar Facilities](#). Face fit assessments must be repeated every two years.
- Anyone requiring blood tests, lung function tests (with relevant paperwork), or other vaccinations.

5. General Security

Personal items of value should be secured in a locked drawer or locker and not left on benches or desks, especially during meal breaks. Offices should be locked before leaving at night and at any time during the day when they are to be left unattended. Do not hesitate to ask the business of any strangers wandering about the buildings or attempting to gain entry. Particular attention should be paid to the prevention of 'tailgating'.

Floors, particularly in corridors, access ways and stairs must be kept clear of obstructions and not used for storage purposes.

Staff must not lend their access to cards to anyone else. Security carry out spot checks at entry points and will confiscate any card which is not being used by the assigned card holder.

6. Lone Working

As far as is reasonably possible, no student or member of staff should work alone in the laboratories at any time. If it is considered essential that anyone should work outside normal hours (08.00-20.00 weekdays), then details of how this work will be carried out safely must be submitted on a Lone Worker Risk Assessment form for that project and authorised by their Supervisor or Centre Lead.

The application must be supported by the provision of the COSHH and/or Bio-COSHH risk assessment forms, relevant SOPs to the project, and any other relevant H&S documents, including confirmation of booked/attendance of the relevant mandatory H&S training courses.

Lone working will not be permitted for work experience and undergraduate students, or anyone who has been at the Blizzard Institute for less than three months.

Further guidance can be located on the [Blizzard Laboratory Management Notebook](#), specifically *SOP LM08c General access queries*

7. Fire Safety and Evacuation Procedures

The QMUL Fire Safety and Evacuation Procedure must be followed by staff, students and other persons within the premises in the event of a fire. New staff will receive training as part of the induction process. All staff must complete the e-learning Fire Safety module <http://www.hsd.qmul.ac.uk/training/online-learning/>, which must be refreshed every two years.

For QMUL Fire Safety policy, arrangements, procedures, and guidance, follow this link: <http://www.hsd.qmul.ac.uk/a-z/fire-safety/>

General fire safety rules for the Blizzard Institute

- Observe obvious precautions in the use of electrical equipment. Report any fault in equipment that may present a fire risk immediately to a Blizzard H&S Coordinator or Laboratory Management.
- All electrical equipment should be regularly checked for safety and have a Portable Appliance Test (PAT) label affixed to it. Validity dates are noted on the label.
- Wall and unit-mounted sockets and switches should be protected from moisture, properly secured and free from cracks. Plugs should not be used if the grip screws are not fulfilling their purposes or if exposed wires are visible.
- Learn the locations of fire alarms, extinguishers, fire blankets and escape routes, and the instructions for action in the event of a fire.
- Certain doors are defined as fire doors. Their prime function is to restrict the spread of smoke from the site of a fire to other parts of the building. These doors should be kept closed at all times and not hooked or wedged open unless fitted with alarm-activated door closers. Please check that they are closed in the event of a fire, or when the fire alarm sounds, either continuous or intermittent ringing.
- When using the plug sockets be sure to unplug items after use (e.g. pipette chargers). Only leave in plugs that are required for equipment that is always in use.
- If an extension cable is required, it must be surge protected and not sit on the floor, it must be secured to the side of equipment or bench.

Actions in the event of a fire

Do not take any personal risks! Detailed instructions are posted near the staircase on each floor and should be read by all staff. In brief, dial 3333 and break the nearest glass alarm. If the fire is not easily controllable, close as many doors as possible and evacuate the building. Do not stop to collect personal belongings. Go to the [designated assembly point](#), Floyer House Square for personnel in the Blizzard building, and the Blizzard Mews for personnel in the Abernethy building. The fire marshals will, as far as it is safe for them to do so, check that all staff have left the building and inform the Fire Brigade on its arrival if anyone is unaccounted for.

Staff/students and fire marshals should not attempt to tackle a fire unless it can be extinguished without any personal risk, or when the fire is blocking the evacuation route.

There are two types of [extinguisher](#) available:

1. Foam spray – fires include paper/wood (do not use on electrical fires!)
2. Carbon dioxide – flammable liquids and electrical fires

8. First Aid Call out Guidance

Information of first aid can be accessed at <http://www.hsd.qmul.ac.uk/a-z/first-aid/first-aid-treatment/>.

To call a first aider in an emergency:

- Dial extension 3333 and the call will go through to Security; this is the fastest and most efficient way of summoning assistance.
- Security staff will ask the location of the casualty, name of casualty, name of caller and condition of casualty. Please answer as many questions as possible to assist with the management of the casualty's condition.
- The Security staff will contact a Building Based First Aider (BBFA) via their extension and/or mobile number. The location of the emergency and BBFA will be taken into consideration as the Whitechapel campus stretches across multiple buildings, so contact will be attempted with the BBFA(s) closest to the casualty. Security staff will advise the BBFA of the location and condition of the casualty, and the BBFA(s) will make their way to the casualty to administer first aid treatment. Out of normal working hours, Security Officers carry out the first aid duties.

The designated Accident and Emergency department for QMUL is at the Royal London Hospital.

Address Royal London Hospital, Whitechapel Rd, London E1 1FR	Phone 020 7377 7000
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First aid boxes are located in both open plan and enclosed laboratory areas, and at strategic points throughout the office/write-up areas. If items are missing from these boxes, please inform one of the staff members responsible for first aid so that the boxes can be replenished. Laboratory Management carry out regular checks on the first aid boxes to ensure adequate supplies are available.

Eye wash stations are to be found next to the hand wash sinks in the red bays of the open plan area and at the ends of the laboratory benches by alternate hand wash basins in the enclosed laboratories.

9. Accidents and Incidents

All accidents, incidents, dangerous occurrences and near misses must be referred to a Blizzard Institute H&S Coordinator/Blizzard Laboratory Management in the first instance before being reported via the online system [MySafety](#)

Information required is:

1. Type of incident- accident/incident; ill health; service disruption; near miss.
2. If someone was injured- their name, contact number and where they work.
3. Information about what happened and where it happened.
4. If immediate action was taken, what was it (e.g. first aid administered).

Notification of the event is automatically sent to the Director of the Blizzard Institute and Blizzard Institute H&S Coordinators, along with QMUL Health & Safety Directorate.

The Blizzard Institute H&S Coordinators and Line Manager will apply immediate remedial actions. QMUL Health & Safety Directorate normally will investigate events of significant risk and provide recommended actions to ensure events do not re-occur.

10. IT Services Hardware Disposal

The QMUL ITS website is accessed at <https://www.its.qmul.ac.uk/>. This website includes details of who to contact for support, [IT service status](#), [setting up new users](#), and how to [dispose of IT hardware](#).

11. Laboratory Containment Levels

Work in the Blizzard Institute may comprise of research and teaching involving work with micro-organisms (Hazard Groups 2 and 3) and other biological materials, including genetically modified organisms, laboratory animals, chemicals and radioisotopes.

The laboratory areas are mostly divided into open plan (Containment Level 1, “CL1”), enclosed (Containment Level 2, “CL2”) and secondary areas including tissue culture rooms (CL2), core facilities and general facilities/equipment rooms. There are also three Containment Level 3 (“CL3”) suites in the Institute. The enclosed CL2 areas south of the central corridor may be used for the handling of blood and tissue samples but must not to be used for handling of any material known to contain human pathogens.

12. Administrative and Health and Safety Duties Associated with Laboratory Activities

No work shall commence on any laboratory-based project until the senior academic/research group leader with responsibility for the project has carried out a risk/COSHH/Bio-COSHH assessment and this has been agreed and signed by the supervisor and worker(s) in each case.

Authorisation to work in the laboratories must not be given to anyone until all H&S documentation has been completed and authorised.

Project risk/COSHH/Bio-COSHH assessment forms should be readily available at all times in order that those involved in a project are able to identify hazardous materials/techniques with which they are working, how to use them safely and how to dispose of them.

Risk assessments should be uploaded to [MySafety](#). Guidance for using MySafety and templates can be accessed at <http://www.hsd.qmul.ac.uk/a-z/-mysafety---online-health-and-safety-management-system/>. Signed risk assessments should also be stored in SharePoint, and an up-to-date copy placed in the purple loose leaf folders located in each laboratory area. Those responsible for projects must ensure that project risk/COSHH/Bio-COSHH assessments are reviewed at least every three years or whenever changes are made to the project or more information becomes available about chemicals/biological agents which results in new risks being encountered. **Any risk assessment with residual risk levels of medium to high must be reviewed annually.**

Email lab management, blizard-lab-man@qmul.ac.uk with signed copies of reviewed risk assessments.

All persons must be aware of the hazards presented by the chemical and biological agent(s) and other physical/environmental hazards that they are working with and the level(s) of containment/protection required. They must also be aware of the nature of the hazards presented by other work being conducted in shared laboratories that may potentially affect them. Please see topic based guidance at <http://www.hsd.qmul.ac.uk/a-z/>

13. General Laboratory Procedures

- Keep the workspace as clear as possible. Benches should be left clear and clean before leaving the laboratory at the end of the day. When used for microbiological work they must be disinfected with a freshly prepared disinfectant at the appropriate concentration.
- Bunsen burners must be turned off completely when not in use, and must never be left unattended. Keep these well away from bench lights, overhanging cupboards and flammable materials.
- Observe the correct disposal procedures for disinfection and waste disposal (see section 19).
- Keep paperwork free from contamination. If it is essential to use paper/books in the laboratory, a clearly marked, contamination-free area, should be designated.
- Wherever possible, the goods lift should be used for the transfer of laboratory materials

between floors. All hazardous materials, (i.e. chemicals, clinical waste, bottles containing molten media or heavy items) must be transferred using the lift. Use appropriate secondary containment.

Spillages and breakages

HSD guidance and procedures can be accessed via <http://www.hsd.qmul.ac.uk/a-z/spillages/>.

- Do not attempt to pick up any broken glass with fingers; always use PPE (gloves, lab coat and goggles) when brushing up broken glass.
- The H&S Coordinator and Institute Laboratory Managers must be informed of any major breakage or spillage. Biological, chemical, phenol and mercury spillage kits are available under the mushroom.
- Spilled cultures must be covered with paper towel soaked with appropriate disinfectant/bactericide/virucide (Chemgene) for at least 30 minutes before attempting to clear the area.

Further guidance can be located on the [Blizard Laboratory Management Notebook](#), specifically *SOP LM25 Spill procedures*.

14. Personal Hygiene and Precautions

- Always **wash your hands** after removing your lab coat and before leaving the laboratory. Hands should be washed immediately after dealing with any spillage or after procedures that may result in contamination.
- **Gloves must be removed before leaving the laboratory** to avoid contaminating doors and door handles. Gloves must be removed before leaving any CL2 area and must never be introduced into CL1 areas upon exit. Gloves must also be removed before using mobile phones, answering the land line telephones.
- All cuts and grazes on hands or exposed areas must be covered with adhesive dressings prior to commencing any work in the laboratories.
- The wearing of **personal headphones/earphones** is strictly forbidden in all CL2 laboratories and other high risk areas. Only one earphone in/one earphone out is permitted in the CL1 open plan laboratory areas. Further guidance can be located on the [Blizard Laboratory Management Notebook](#), specifically *Policy LM02 Earphone usage within the laboratory*.
- Never eat, drink or smoke in the lab. Smoking is prohibited on QMUL campuses unless designated areas are provided - see <http://www.hsd.qmul.ac.uk/a-z/smoking-policy/>
- Do not touch your mouth, eyes, face etc. with your gloved hand or any object while in the laboratory.
- Keep long hair tied back so that there is no risk of it falling into naked flames or contaminated material.
- Appropriate clothing and shoes must be worn in laboratory areas. Open-toed shoes, shorts and short skirts must not be worn since they provide no protection in the event of a spillage.

15. Pathogens and Higher Risk/Infectious Biological Material

Please see procedure at <http://www.hsd.qmul.ac.uk/a-z/health-and-safety-advisory-group/health-and-safety-advisory-group/bgmisc/> and topic guidance at <http://www.hsd.qmul.ac.uk/a-z/biological/>

The project summary and Bio-COSHH risk assessment/s for work with the following biological agents or materials should be submitted to the BGMSC in advance of work commencing:

- i. ACDP Hazard Group 2 or 3 wild type (non-genetically modified) biological agents - listed in <http://www.hse.gov.uk/pubns/misc208.pdf>
- ii. Biological agents without an approved list classification, but fulfilling the classification for ACDP Hazard Group 2 and 3 on page 7 of <http://www.hse.gov.uk/pubns/misc208.pdf>
- iii. Specified Animal Pathogens Order (SAPO) Group 2 or 3.
- iv. Biological agents or materials needing Department of the Environment, Food and Rural Affairs (DEFRA) permit/s for work due to biological risk or import criteria.
- v. Biological materials (cells, tissue, body fluids either from human or animal/other wildlife sources) known or strongly suspected of biological agents noted in i.-iv. (e.g. work with sputum samples known or strongly suspected to contain *Mycobacterium tuberculosis*, blood samples known or strongly suspected to contain Human Immunodeficiency Virus and/or Hepatitis B or C viruses).

Note: Biological agents that are listed or fall under the criteria for ACDP Hazard Group 4 or SAPO Group 4 are not permitted onto QMUL Premises, and therefore will not be considered.

All new staff/students working with Hazard Group 2 pathogens/Class 2 GMOs/GMMs (CL2) are expected to undergo approximately four weeks specialised training before being allowed to work unsupervised in the laboratory. When the supervisor is satisfied that the person is sufficiently competent to work without supervision, a training record signed by both trainer and worker should be completed and made available for inspection if required. Undergraduate and postgraduate students undertaking short-term research projects must be supervised at all times.

The laboratories, with the exception of the Containment Level 3 (CL3) suites, are not recognised for the use of Hazard Group 3 pathogens. Work with Hazard Group 3 pathogens/Class 3 GMOs/GMMs have specific training and competency assessment procedures and written records that need to be completed before lone working with pathogens or higher risk biological materials is permitted. Please contact the Principal Investigator for the CL3 laboratory, senior lab researcher or the QMUL Biological Safety Adviser.

16. Genetically Modified Organisms

All work involving construction or use of genetically modified micro-organisms (GMMs) are subject to the Genetically Modified Organisms (Contained Use) Regulations 2(014), and must

be approved by the QMUL Biological & Genetic Modification Safety Committee (BGMSC).

Please follow the procedure for QMUL at <http://www.hsd.qmul.ac.uk/a-z/health-and-safety-advisory-group/health-and-safety-advisory-group/bgmsc/> and topic guidance at <http://www.hsd.qmul.ac.uk/a-z/genetically-modified-organisms/>

17. Personal Protective Equipment (PPE)

Advice and guidance on PPE can be obtained from QMUL H&S Directorate <http://www.hsd.qmul.ac.uk/a-z/personal-protective-equipment-ppe- -rpe-/>

Further guidance can be located on the [Blizard Laboratory Management Notebook](#), specifically *SOP LM20 Personal protective equipment*.

Laboratory coats

Howie style laboratory coats/gowns must be worn at all times when working in the laboratories - They must always be fastened. Lab coats should be changed regularly and dirty coats should be taken to the designated area on the laboratory floor by the lift lobby and exchanged for a clean one. If a laboratory coat has become contaminated, immediately inform your supervisor and the H&S Coordinator or a member of the Laboratory Management team. When not in use, coats should be left on the hooks provided in the open plan lab or enclosed areas. Laboratory coats must be removed prior to leaving the laboratory areas and must not be worn in the office areas or lifts (with the exception of the goods lift on the West side of the Blizard Building).

Items of personal clothing and bags must not be taken into laboratory areas. Lockers are available (West side lobby) for staff/contractors/visitors who do not have anywhere to leave their belongings. Please check with Laboratory Management Institute Technicians to obtain a key which must be returned to staff by the end of the day.

A colour-coded system is used for laboratory coats throughout the Blizard and Abernethy buildings in order to identify areas of activity:

- **Light blue:** Containment Level 2 areas at the North end of the building where infectious material is handled is to be limited to specific enclosed laboratories (LG112 /113 and tissue culture suites TC8 and TC9). Work in these areas will be determined by the staff's BioCOSH risk assessments.

Blue coats must not be worn in the open plan laboratory areas. Coats must be changed when moving from one area into another. However, when material (e.g. a gel) is being prepared for immediate transfer to the dark room on the East side of the open laboratory, a white coat may be worn for a short period within the enclosed area for this procedure.

N.B. White coats must not be stored in blue coat areas.

- **Burgundy:** Visitors lab coat
- **Brown:** Estates lab coat
- **Green:** GM Class 2 laboratory (LG09)
- **Grey:** Low copy PCR Preparation laboratory (LG75)
- **White:** All other laboratory areas

Clean laboratory coats can be found in the lobby next to the goods lift. If there are no lab coats available, contact the Washroom on ext. 2301 or email blizard-lab-man@qmul.ac.uk

Safety eyewear

Safety eyewear is supplied to all new staff by Laboratory Management following their induction. QMUL policy states that eye and face protection appropriate to protect the person during the task and hazardous area is worn (BS EN 166 standard). Supervisors must inform users via relevant risk assessments and induction as to which eye/face protection is required for which areas/tasks.

Please note that the use of specified safety face and eyewear is mandatory in all laboratory areas. It is advised that safety eyewear is worn whenever there is a risk of injury to the eyes e.g. working with hazardous solutions/reagents.

The use of specialised safety face and eyewear is compulsory in certain areas, such as the liquid nitrogen facility (see <http://www.hsd.qmul.ac.uk/a-z/cryogenicliquids/>), Washroom and dark rooms.

For the QMUL DSE eye care and prescription safety eyewear procedures, see <http://www.hsd.qmul.ac.uk/a-z/dse-eye-care/>.

Gloves

Gloves must be worn when working in any laboratory area. Only nitrile gloves (BS EN 374 standard), which carry a low risk of triggering allergic reactions, should be used. It is essential that all staff and students ensure that the gloves they are using provide adequate protection against the chemicals or other materials they are using, e.g. when handling corrosive chemicals, red chemical gloves should be worn.

Those performing procedures that require the use of specific types of gloves for protection should consult their supervisor, H&S Coordinator or a member of the Blizard Laboratory Management team.

18. Disinfectants- General Rules

Further topic guidance and information and the disinfectant procedure template can be access via <http://www.hsd.qmul.ac.uk/a-z/decontamination/>

- Solutions of disinfectants must be freshly prepared at the recommended concentration and have proven activity against the relevant biological agent(s).
- Where work with material that may contain infectious agents is carried out, a freshly prepared solution of disinfectant must always be available for neutralising spillages.
- Disposable gloves must be worn when swabbing the bench with any disinfectants.
- Be familiar with the correct use and hazards of the disinfectants used in the laboratory.
- Disinfectants should not be sprayed but squirted onto paper towels and wiped to avoid inhalation of aerosols or creating flammable atmospheres (i.e. with 70% ethanol).

19. Laboratory Waste Disposal and Recycling

Follow procedure and guidance at <http://www.hsd.qmul.ac.uk/a-z/hazardous-waste/>

Guidance can be found on the [Blizard Laboratory Management Notebook](#), specifically *SOP LM16a Laboratory waste and recycling*.

Recycling

Cardboard boxes, packaging materials, polystyrene boxes, pipette tip boxes, clean glass waste, ice/gel packs, clean media bottles and other plastic bottles can all be recycled in the containers under the Mushroom area stairs.

Clinical/biological waste

Most waste generated in the laboratories should be treated as clinical waste. Sharps boxes are for the disposal of all sharps and pointed plastics. Clinical waste bags are for the disposal of anything else that isn't sharp. Ecoloc bins are for the disposal of semi-solid anatomical waste, as well as sharps, cardboard and towels which have been contaminated.

Once clinical waste bags, sharps boxes and ecoloc bins are full and not exceeding the weight limit (5kg), they should be correctly shut, secured with a plastic zip tie and placed in a yellow crate for collection by the porters.

N.B. Anything in the yellow crates which does not have a zip tie and/or is not sealed correctly will not be taken away. Additionally, if the label on the sharps bin is incomplete it will not be collected.

Supplies of clinical waste bags, sharps boxes and plastic zip ties can be found in the lobby next to the goods lift. If there are none available, users should contact the Washroom on ext. 2301 or email blizard-lab-man@qmul.ac.uk Ecoloc bins can be obtained by contacted the Washroom as above.

Waste management crates

At the end of every CL2 Lab, and in some places in CL1 areas, there are crates for the following purpose:

- Red crate** - infectious/GM waste requiring autoclaving prior to disposal.
- Blue crate** - dirty (uninfected) glass and plasticware for washing and sterilisation.
- Green crate** - clean items for autoclave/dry heat sterilization (e.g. tips, tubes, instruments, solutions and buffers)

Chemical/solvent waste

Follow procedure and guidance at <http://www.hsd.qmul.ac.uk/a-z/hazardous-waste/>. Users should fill in the Chemical Waste Disposal form and email it to Laboratory Management. Arrangements will be made for collections and disposal. Laboratory Management can be contacted for guidance via blizard-lab-man@qmul.ac.uk

20. Laboratory Equipment - General Guidance

Always operate equipment according to the manufacturer's instructions and standard operating procedures. **Seek advice from a senior member of staff if in doubt.**

Ensure you gain approval from the appropriate member of staff if you need to use equipment which does not belong to you.

Faulty or defective pieces of apparatus must be reported at once to the H&S Coordinator or Laboratory Management.

It is the responsibility of each person in the laboratory to ensure that equipment is switched off where appropriate, before leaving the laboratory. Some items of equipment must be left on overnight. If in doubt, ask a senior member of staff.

Centrifuges

- Instruction manuals must be read before attempting to use any centrifuge.
- All tubes or bottles to be centrifuged must be balanced as specified and positioned symmetrically in the rotor. The care required to achieve accurate balance depends on the machine to be used.
- Never place liquid in the bottom of buckets in order to achieve balance.
- Tubes should contain no more than the permitted maximum (and in some cases, no less than the required minimum) in accordance with the instruction booklet.
- Sealed centrifuge buckets are fitted for safety and must be used whenever infected material is being centrifuged - Use them at all times.
- Screw-capped buckets are designed to be spun with samples in place.
- **If a breakage occurs or is suspected during operation, switch off the centrifuge. Leave it closed for at least 30 minutes to allow for the dispersion of any aerosols generated and contact a member of Laboratory Management team.**

Any manipulation after a breakage must be carried out using thick rubber gloves, making use of forceps where necessary. Where human/biological material is involved, the rotor and broken glassware must be removed and placed in disinfectant, then left for the appropriate time before handling - Gloves and masks must be worn.

- If excessive vibration occurs once the centrifuge is on, switch it off immediately. Do not attempt to slow the rotor manually. Check if buckets are properly balanced before switching on again.
- If you require the use of the high-speed or ultra-centrifuge please contact Laboratory Management who will carry out the necessary training. Information can be read on [MySafety](#) risk assessment RA002240/3. This risk assessment must be acknowledged and signed off after induction.

Local Exhaust Ventilation (LEV)

LEV is equipment that removes airborne contaminants, including fume hoods and safety cabinets. Always take advice from your supervisor as to whether your project requires any manipulations to be carried out in LEV equipment, and if so, which type of equipment is appropriate. Details of the types and locations of safety cabinets/fume hoods used should be included in the COSHH/Bio-COSHH/GMO or Radiation Risk Assessment.

If you notice anything wrong (e.g. no airflow, audible or visual alarm sounding, power failure) when using any of the equipment, make safe and stop using the equipment, evacuate the area, cordon off, and contact Laboratory Management as soon as possible.

LEV equipment is tested every 12 months (6 months for cabinets in CL3 laboratories). The fumigation of safety cabinets (with formaldehyde or peroxide) may be necessary, prior to preventative maintenance, when the units have been used for microbiological work, especially when HEPA filters require changing, or when the cabinet has been contaminated following a spillage. Any fumigation of the MSCs in the tissue culture labs will be carried out either by Laboratory Management or by a company contracted for MSC servicing. A Risk/COSHH assessment must be in place before an MSC is fumigated.

Fume cabinets/cupboards/hoods: Do not use these for the storage of chemicals; where there is a high volume of chemicals held in the fume hoods, the relevant group will have to remove them. Ensure you received training how to use a fume cupboards correctly; topic information and guidance is available <http://www.hsd.qmul.ac.uk/a-z/local-exhaust-ventilation/>

Microbiological Safety Cabinets: Class II Microbiological Safety Cabinets (MSCs) are available in the tissue culture (TC) laboratories. Each of the Class II MSCs within these laboratories will be either designated to a specific range of operations/infectious agents, or used only for sterile cell culture work. Only specific TC laboratories should be used for work with infectious material. Discuss with your supervisor and the Laboratory Management before using these facilities. Class I MSCs are available only within the CL3 laboratories; access to these laboratories is strictly controlled.

General rules for the safe use of MSCs:

- Work in Class I and Class II MSCs must not commence until sufficient time has been allowed for the establishment of safe airflow.
- MSCs must be wiped down after use with a suitable disinfectant. Squirt disinfectant onto paper towels and wipe. Some disinfectants are corrosive and must be rinsed off with water after use to avoid damaging the stainless steel interior.
- Pathogens/micro-organisms in Hazard Groups 1 and 2 must be handled in accordance with the ACDP guidelines and QMUL Policy [Biological - Health and Safety Directorate \(qmul.ac.uk\)](http://qmul.ac.uk). All ampoules containing freeze-dried biological agents must be opened in an MSC.

Horizontal laminar flow cabinet: Situated in the Media Prep area in LG113, it is intended to prevent contamination of media during preparation and dispensing, **but provides absolutely no protection to the operator.** This type of cabinet must not be used for any pathological materials or hazardous/toxic chemicals.

Microwaves

Caps must be completely removed from bottles containing agar/media prior to them being heated in a microwave oven, and you should check during heating that the solution does not boil over.

21. Cryostore Facility

The liquid nitrogen cryostore facility is located in G26. Access to the cryostore facility is strictly controlled and requires an induction from the Laboratory Management team prior to access being approved. **Once the induction has been completed, access will be granted to users from Monday to Friday between 9am-5pm only (excluding Bank Holidays).** Users can gain access via a four digit pin number linked to the user's QMUL card.

- For further details and guidance, please refer to [MySafety](#) risk assessment **RA000770/4**. Please note, users need to review and acknowledge/sign off on this risk assessment before access is approved. Further guidance can be located on the [Blizard Laboratory Management Notebook](#), specifically *SOP LM01 Liquid Nitrogen and Cryostore*

22. Hazardous Chemicals and Solvents

- Personnel carrying out work in the laboratories must have available at all times a copy of the COSHH risk assessment forms relevant to their project. These should be consulted for information regarding the hazardous nature of the chemicals that are in use and appropriate procedures for their handling, storage and disposal. Safety Data Sheets (SDS) issued by the supplier should be accessible – these are sent in hard copy form with the chemical or are available from the official website. If not received, please contact the supplier for a copy. This information should be held in the purple loose leaf folder available from Laboratory

Management and kept in a prominent place in the laboratory or in the filing cabinet near the Delivery Bay under the Mushroom. Alternative electronic storage and easy access via a laboratory computer can be agreed with the Institute Safety Coordinator. It is advised that staff update old COSHH/BioCOSHH forms to the updated versions available from the [H&S website](#).

- All flammable solvents should be stored in a flammable cabinet with minimum 30 minute fire rating according to QMUL procedure [Fire Resisting Cabinets Technical Standard](#). Acids should not be kept in the same cabinet.
- Returnable bottles which have contained organic solvents etc. must be thoroughly purged with water down a designated lab sink before returning. Empty containers must be rinsed thoroughly, and hazard labels removed/covered over before disposal.
- Details of [chemicals for disposal](#) (chemical name and original volume of container) should be sent to the Laboratory Management who will arrange for collection.
- Users must label solutions or chemicals they decant into other bottles appropriately. The name of the chemical should be clearly marked on the bottle and any relevant GHS hazard stickers should be affixed to the bottle. GHS hazard stickers and labels are available outside LG170 (open plan lab area).

23. Safe Use of Materials Containing Radioactive Isotopes

Information relating to the use of ionising radiation at QMUL can be access here [Ionising Radiation - Health and Safety Directorate \(qmul.ac.uk\)](#)

If your work requires the use of radioactive material, please consult the QMUL Radiation Protection Officer (RPO) <http://www.hsd.qmul.ac.uk/contact-us/>, the local Radiation Protection Supervisor, and Institute Laboratory Management.

Currently there is no facility at the Blizzard Institute designated for ionising radiation work.

24. Duty Free Ethanol

The Blizzard Institute has a duty free licence issued by the HMRC for a limited volume of ethanol. The full terms and conditions of usage can be obtained through Laboratory Management.

Order are placed through the [Quartzly](#) booking system. **All users must maintain a usage book to record the volumes of ethanol being used.**

Further guidance can be located on the [Blizzard Laboratory Management Notebook](#), specifically *SOP LM15 Quartzly - alcohol and stores ordering*.

Key Contacts and Telephone Numbers

*From a mobile please call 020 7882 xxxx; Extension number only is required from internal phones

<u>Blizard Institute</u>	
Institute Manager	Extension
Dr Natalie McCloskey n.mccloskey@qmul.ac.uk	2298
Deputy Institute Manager	
Rachael Parker rachael.parker@qmul.ac.uk (Blizard H&S Coordinator – office and communal areas)	2299
Reception	
Tues/Wed/Thurs: Mary Wakefield m.wakefield@qmul.ac.uk	2483
Mon/Fri: Tahera Begum t.b.begum@qmul.ac.uk	-
Institute Laboratory Management	
*Shared Laboratory Management email blizard-lab-man@qmul.ac.uk	
Claire Cox (Principal Laboratory Manager) claire.cox@qmul.ac.uk	2289
Zarmina Butt (Deputy Lab. Manager and H&S Coordinator) z.butt@qmul.ac.uk	2324
Nebiyu Kibru (Deputy Lab. Manager) n.kibru@qmul.ac.uk	2363
Izabela Glegola-Madejska (Blizard CL3 Lab. Manager) i.glegola-madejska@qmul.ac.uk	2377
Catherine Chronnell (Snr Institute Technician) c.chronnell@qmul.ac.uk	2377
Paul Delaney (Snr Institute Technician and H&S Coordinator) p.delaney@qmul.ac.uk	2377
Sabrina Pacheco (Snr Institute Technician – Dentistry) (s.pacheco@qmul.ac.uk)	3496
Shahid Mahmood (Institute Technician) s.mahmood@qmul.ac.uk	2571
Mohamed Khaz (Institute Technician) m.khaz@qmul.ac.uk	2571
<u>Emergency telephone numbers</u>	
QMUL Emergency Number and Building Based First Aiders <i>N.B. first aiders located at the Whitechapel site are centrally deployed</i>	3333
Fire, cardiac arrests and other medical emergencies (then call ext. 3333 to brief duty QMUL Security officer on the issue)	999
Whitechapel Security lodge http://www.security.qmul.ac.uk/	2599
Mile End Security lodge	5000
Occupational Health https://hr.qmul.ac.uk/occupational-health/	8700
Health and Safety Directorate http://www.hsd.qmul.ac.uk/contact-us/	
FMD Faculty H&S Manager – SMD Biological Safety Adviser /Radiation Protection Officer	
Dr Mark Ariyanayagam m.r.ariyanayagam@qmul.ac.uk	8378
SMD H&S Advisor/Clinical Waste Lead	
Suzanne Mason s.t.mason@qmul.ac.uk	6948
Health & Safety Helpdesk hs-helpdesk@qmul.ac.uk	
IT Service Desk its-helpdesk@qmul.ac.uk	8888
Estates Help Desk estates-helpdesk@qmul.ac.uk	2580
Raising a helpdesk ticket http://www.estates.qmul.ac.uk/helpdesk/	

