

## Safety Policy Statement

The Health and Safety at Work Act 1974 along with other regulations and approved Codes of Practice secure the health, safety and wellbeing of not only employees of the School of Molecular Biosciences and the wider University community, but also students and visitors and other Institutions furth of Glasgow. It is recognised that this research School is in several buildings namely, Davidson, Joseph Black, Bower, Jarrett and ARC (Advanced Research Centre). This policy and subsequent health, safety and wellbeing systems have been put in place to take account of the geography and other occupants of these places of work.

The School of Molecular Biosciences, in conjunction with the University's Health, Safety and Wellbeing policy (copies of which are available on the University Web Site) is committed to the provision of a safe and healthy workplace and environment. In addition to meeting statutory requirements this Institute will strive to continually improve on standards of health, safety and wellbeing and as such this document enhances the University's policy by describing the organisational structure in place for safety in the Institute and indicating potential hazards and the precautions required to prevent accidents and ill health.

The successful management of health and safety at work requires active participation of every member of staff within the School. Although the Director of the School has delegated responsibility through the Head of College and ultimately the University Court for the establishment of suitable and sufficient arrangements for health, safety and wellbeing for everyone working or visiting within School property, all staff, students and registered visitors have a duty to ensure that they behave in a manner that will not affect the welfare of colleagues.

Every level of management within the School is accountable to their line manager and at the same time responsible for the health, safety and wellbeing of those reporting to them. Supervisors should lead, motivate and encourage their staff to report on hazards and to discuss all matters relating to health and safety.

The Safety Policy is made, and safety performance monitored by the Director of the School under the guidance and advice of the School Health & Safety Committee comprising staff representatives from various locations, plus interested and associated groups.

The School recognises that safety requirements enacted by law set only a minimum standard. It is also recognised that safety standards are dynamic in nature and the School underlines the importance of its commitment by constantly reviewing its own safety standards. As far as conditions and resources permit, the Institute is committed to continual and progressive improvement in standards of safety.

All staff, students and registered visitors are required to observe the health and safety rules and standards and adhere to the School's Health and Safety Policy Statement. Deliberate deviation from the established rules and standards may result in disciplinary action.

This policy statement will be reviewed by the Health & Safety Committee of the School of Molecular Biosciences at least annually.

To implement this policy, the School of Molecular Biosciences is committed to maintaining and

enhancing the Health, Safety and Wellbeing of all staff, students and registered visitors. This will be achieved by:

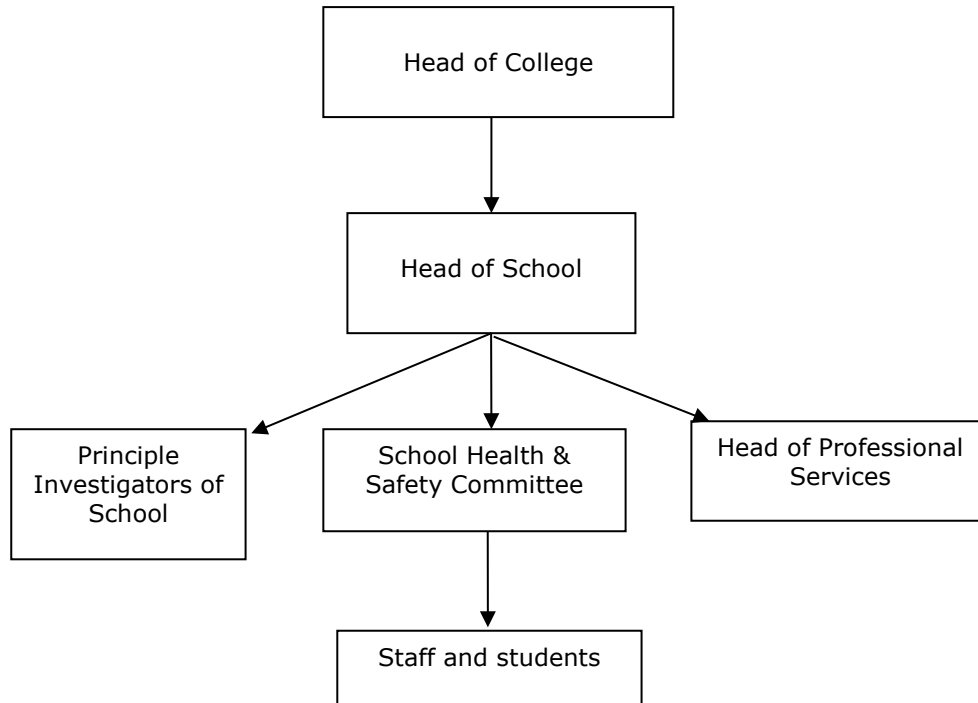
1. Maintaining an appropriate framework for the consultation on effective measures for continual development and the promotion of health, safety and wellbeing.
2. Continuing to develop and implement procedures and codes of safe working practice.
3. Ensuring effective management of risks by assessment, implementation of systems and review.
4. Providing training in safe working methods with the opportunity for all to participate.
5. Forming a health, safety and wellbeing committee with participation at all levels.
6. Developing Institute guidelines to ensure adherence to statutory regulations and University of Glasgow policies.

Should any member of staff or student have any suggestion or comments regarding the above Policy Statement please contact Craig Carr (Chair of the Health and Safety Committee)

See website for members of the Safety Committee of the School of Molecular Biosciences.  
To support the implementation of the above policy, the following guidelines are available on the School's safety web page:

- Accident/dangerous occurrence reporting
- Biology safety
- COSHH, risk assessment and chemical safety
- Dealing with sharps
- E-induction
- Electrical safety
- First aid
- Handling liquid nitrogen
- General safety regulations and information
- GM safety
- New/expectant mother risk assessment
- Radioisotopes local rules
- Use of equipment
- Safe use of Ultraviolet light
- Use of pressurised gases
- Waste
- Working with human material
- General Laboratory Risk Assessment
- Occupational Health

## Hierarchy of the Management of Safety in the School of Molecular Biosciences



Safety issues should be reported to the Convenor, Craig Carr, or in his absence, Area Safety coordinators. However, Principal Investigators have responsibility to ensure that all staff and students working with them are aware of their safety responsibilities within any laboratory in which they work, and ensure that they do not put themselves, other colleagues and other authorised individuals working in the vicinity at risk.

### HEALTH AND SAFETY POLICY

I have received, read and understood a copy of the above safety policy.

**Note: This safety policy supersedes all previous Institute regulations regarding Health and Safety.**

Signed:	Dated:
Print Name:	Building location:
Supervisor:	Nature of role:
Start date:	

Please return the signed statement to SMB Administration, Room 449 Wolfson Link Building

## School of Molecular Biosciences Safety Induction

To be signed on completion by the **SUPERVISOR**.

Please provide your new starter with access to the SEPS website, School Safety Handbook, COSHH assessments and draw their attention specifically to the following points (where applicable).

**There are also building or area specific inductions in place for staff & students which will complement the below list:**

Topic	Tick
Starting in the Lab (obtaining a locker key, lab coat, bench space), tour of facilities	
Importance of wearing Personal Protective Equipment (PPE) in the lab & Personal responsibility for safe working practices. Emphasize personal responsibility for safe working practices	
COSHH forms, Biological & Chemical risk assessments, location in the lab and signing off	
Sources of Safety advice and information e.g., SoMB Health & Safety webpages ( <a href="https://www.gla.ac.uk/schools/molecularbiosciences/studentstaff/healthsafety/">https://www.gla.ac.uk/schools/molecularbiosciences/studentstaff/healthsafety/</a> )& Safety and Environmental Protection Service (SEPS) website. ( <a href="https://www.gla.ac.uk/myglasgow/seps/">https://www.gla.ac.uk/myglasgow/seps/</a> )	
SEPS E-information: <a href="https://www.gla.ac.uk/myglasgow/seps/training/">https://www.gla.ac.uk/myglasgow/seps/training/</a>	
Other sources of safety advice and information, i.e., laboratory safety noticeboard	
Emergency Procedures: Fire safety, Fire Alarm Evacuation Procedure, Fire Alarm Test	
Location of Fire Extinguishers, Fire Blankets & Fire alarm activation points	
List of First Aiders in the Building, location of First Aid boxes	
Eye Wash Stations, Hand Wash Sinks & Showers	
Electric safety - Electric Shock Hazards in the laboratory	
Reporting of accident and dangerous occurrence Form	
Reporting broken equipment & Building defects	
Building Security, Access Times & Lone Working Policy Safe Zone App ( <a href="https://www.gla.ac.uk/myglasgow/securityandoperationalsupport/">https://www.gla.ac.uk/myglasgow/securityandoperationalsupport/</a> )	
Biological Safety & Genetically modification safety policies	
Chemical Storage and Hazard Symbols, Safety Symbols, and other hazardous chemicals	
Chemical waste classification, storage, and disposal	
Chemical Spillages	
Liquid Nitrogen Handling	
Sustainability, sharing resources, recycling points in the lab/building	
Disposal procedures: waste streams for the disposal of Chemical, Biological or Electrical	

waste & SEPS waste policy	
Good microbiological practice	
Handling of pathogens and potentially infective tissues	
Handling human material and hepatitis B immunisation	
Safe use and disposal of sharps	

Signed:	Dated:
Print name:	Supervisor (print):

The induction should be completed by all new members of staff and students. The induction will be carried out by a competent person for Health and safety purposes. **Competency** is defined as the acquisition of knowledge, skills, and ability at a level of expertise suitable for performing certain work. Principle Investigators/ Supervisors must be satisfied with the individual's competence and their understanding of the local safety arrangements. A copy of the form once complete should be returned to the School Administration office and a copy retained in the Laboratory.

Please return the signed statement to SMB Administration, Room 449 Wolfson Link Building

SMB H&S: December 2024

## **Safety Instruction Notes for New Lab Members**

### **1. Starting in the lab. How to obtain the following:**

- Locker key (where applicable).
- Lab coat – Order from MVLS Stores or can take a clean spare coat from laboratory.
- Bench/Fridge/Freezer Space – PI to allocate.
- Computer/Write-up space – PI to allocate.

### **2. Lab Tour**

All rooms & equipment associated with the laboratory & discuss building facilities. (e.g., Plant Environmental Growth chambers (walk-in or reach-in), Cold-rooms, Ultra-low temperature freezers, washroom, laundering laboratory coats). Laboratory consumable ordering procedures etc.

### **3. Emphasise personal responsibility for safe working practices.**

It is your responsibility to wear Personal protection equipment (PPE). Obtain instructions in CoSHH risk assessments/ the safe use of equipment/chemicals/SOP's (standard operating procedures) PRIOR to starting work to keep both yourself and others safe.

**\*No eating /drinking/vaping/smoking allowed in the lab\*.**

**\*Do not wear disposable gloves when going through doors! \***

**\*If you don't know how to use equipment, please ASK! \***

### **4. Importance of wearing Personal Protective Equipment (PPE) in the laboratory**

Minimally wear a Lab coat. As required wear gloves, eye protection, full face visor, covered shoes depending on the work that you are carrying out for your own protection and that of others.

### **5. COSHH-Risk Assessment forms, Biological & Chemical**

The forms are in each laboratory, new lab members must read and sign the forms relevant to their work PRIOR to starting work.

### **6. Complete the E-induction form on the university website**

<https://www.gla.ac.uk/myglasgow/health/>

### **7. Other sources of Safety Advice and Information**

- School of Molecular Bioscience Health & Safety webpages
- <https://www.gla.ac.uk/schools/molecularbiosciences/studentstaff/healthsafety/Safety> and Environmental Protection Service, GU (SEPS) website <https://www.gla.ac.uk/myglasgow/seps/>

### **8. Waste disposal routes in the lab, i.e.**

- General Waste
- Chemical (both non-hazardous and hazardous),

- Biological (liquid and solid),
- Glass
- Sharps (i.e., needles, lancets, scalpel blades)
- Recycling (e.g., paper, batteries, and printer cartridges)

#### 9. Fire Alarm Testing (weekly)

The alarm is tested weekly for each area. The alarm comprises of a short, loud, ringing burst which should cease after around 10-15 seconds. **If the alarm doesn't stop, assume that it's a real fire alarm activation and evacuate the building via the nearest exit.**

#### 10. Fire Alarm Evacuation Procedure

When the fire alarm is activated, please stop what you are doing immediately and LEAVE the building by the nearest exit, following the **GREEN Fire Exit signs**. **DO NOT USE THE LIFT!**

**Familiarize yourself with the assembly point or congregation area for each building.**

**\*\*Do NOT re-enter the building until you are told that it is safe to do so by the Area Fire Officer, Emergency services or security services.\*\***

#### 11. Fire Extinguishers & Blankets

Familiarize yourself with the location of the Fire extinguishers, blankets & emergency fire activation points with the lab / building.

Remember the Fire Triangle – Oxygen, Heat and Fuel. A fire can be prevented by removing one of the 3 elements.



#### **Fire Action Plan**

1. In the event of a fire, raise the alarm by activating the nearest Fire Alarm Call point.
2. Evacuate the building by the nearest exit and go to the **Assembly Point for your building.**
3. Close doors where possible as you leave.
4. Don't use LIFT! Don't stop to collect personal belongings!
5. Don't re-enter the building until you are told that it is safe to do so.
6. **Contact GU Security on Ext 4444** to let them know the circumstances of the fire alarm activation.
7. Don't attempt to tackle a fire if it puts you at risk. Evacuate and let the Fire Brigade handle it.

#### 12. Emergency Procedure

In the event of an emergency, use any University telephone in the lab/offices/computer areas to:

- Contact University Security by dialing **4444 (Emergency Number only)**.
- If Security are unavailable, contact Police, Fire & Ambulance DIRECTLY by dialing **9999**.

Give the following information:

- Your Name
- Exact Location and Nature of the Emergency
- Any Hazards at the Scene
- Number of Casualties (if any). (N.B. All calls to the emergency services are recorded).

### 13. List of First Aiders in the Building, location of First Aid boxes

The lists of current First Aiders are in various points throughout the buildings: corridors, above the hand wash sinks in each lab. The First Aid boxes are in each laboratory. For replacement First Aid supplies please contact the safety coordinator for your area/ building.

### 14. Eye Wash Stations, Hand Wash Sinks & Emergency Showers

The eye wash stations are located beside the 2-hand wash sinks in the lab.

There are 2 hand wash sinks in most of the school's laboratories located beside the entrances/exits in the lab and they are stocked with soap and paper towels.

The emergency shower stations are located beside the 2-hand wash sinks in the lab.

### 15. Fire Safety and Hazards

<https://www.gla.ac.uk/myglasgow/seps/firesafety/>

### 16. Electric Shock Hazards in the Laboratory

In the laboratory, workers may be exposed to electrical hazards including electric shock, fires, and explosions. Potential exposures to electrical hazards can result from faulty electrical equipment / instruments / wiring, or unsafe work practices.

To avoid such hazards:

- Always follow the manufacturer's instructions for using electrical equipment.
- Do not use electrical equipment to perform a task for which it is not designed.
- Before turning equipment on, check that all power cords are in good condition.
- If you see a person being electrocuted, **DO NOT TOUCH THEM!** The electricity can go through you too! If possible, **turn off the power** (pull the plug or trip the circuit breaker), **or use an item made of non-conductive material (e.g., wooden brush handle) to pry the person away from the contact.**
- **Call the emergency services immediately, 9999 on any University telephone (Tel No on mobile is 999).**
- **Carry out First Aid by checking ABC (Airway, Breathing and Circulation). Perform CPR if needed until the ambulance service arrives and takes over.**

### 17. Reporting of Accident or Dangerous Occurrence in the Laboratory

All accidents or dangerous occurrences must be reported to avoid recurrences and accidents in future. If you are involved in an accident or dangerous occurrence you must first report it to your PI and the local Safety coordinator.

They will investigate and when the details are agreed with all parties, an Incident Report form will be filled in online and sent by email to SEPS [safety@glasgow.ac.uk](mailto:safety@glasgow.ac.uk). (University's Safety and Environmental Protection Service).

A copy should also be sent to the H&S convenor – Craig Carr [craig.carr@glasgow.ac.uk](mailto:craig.carr@glasgow.ac.uk) and the



SMB admin team [smb-admin@glasgow.ac.uk](mailto:smb-admin@glasgow.ac.uk)

The form must be received by SEPS **within a maximum of 5 working days of the occurrence**. This is necessary to allow the University to comply with legally prescribed time limits for reporting of certain incidents to the enforcing authorities.

The Incident Report Webform or download the printable version of the form is available at: <https://www.gla.ac.uk/myglasgow/seps/reportanincident/>

## **18. Reporting broken equipment & Bower Building defects**

Broken equipment in the lab should be reported to your PI in the first instance.

Building fabric defects should be reported to the following:

- Craig Carr ([Craig.Carr@glasgow.ac.uk](mailto:Craig.Carr@glasgow.ac.uk)) Ext 5081 rm 250, Bower Bldg.
- Paul Graham ([Paul.Graham.2@glasgow.ac.uk](mailto:Paul.Graham.2@glasgow.ac.uk)) Ext. 6151 rm 250 Sir James Black Bldg.

## **19. Building Security, Access Times & Lone Working Policy**

### **Bower**

Access to the Bower Building is controlled by an Access Card Security System. Your staff/student card must be set LOCALLY within the Bower building to work with the proximity readers. See Mr Craig Carr, room 250 to have your card registered to work on the local system. Card Access times are set locally on the building's computer system and depend on the category of worker.

- For Staff: 7 days, 24 hours
- For UG Students & Visitors: 8am-5 pm, Monday – Friday

### **ARC**

Access to the ARC Building is controlled by an Access Card Security System. Requirements for card activation for the ARC labs are as follows:

- Completion of the ARC lab induction video and quiz (<https://moodle.gla.ac.uk/course/view.php?id=37595> then to self-enrol, please enter the word **induction** when prompted).
- Completion of relevant School and local lab safety induction.
- Confirmation of the above (including project/contract end date) in an email to Carol-Anne Smith and Aileen Gardner from resident PI or nominated deputy.

### **Davidson**

Access to the Davidson Building is controlled by an Access Card Security System. Only for out of normal working hours access. Normal daily access is via the Wolfson link building entrance and facilities assistant box.

### **Sir Joseph Black**

Normal daily access is via the main building entrance and facilities assistant box.

## **20. Lone Working Policy**

<https://www.gla.ac.uk/myglasgow/seps/az/loneandoutofhoursactivities/>

Safe Zone App: <https://www.gla.ac.uk/myglasgow/securityandoperationalssupport/>

## **21. Biological Safety**

<https://www.gla.ac.uk/myglasgow/seps/biological%20safety/>

## 22. **Chemical Storage and Hazard Symbols**

There are potentially a wide range of hazards depending on the specific chemical. The SDS sheets supplied by the company selling the chemical, provide information on the chemical, its hazards, storage conditions and safe use. Please follow them.

CLP classification and labelling system (EU) has been in force since 1/6/2015. The new pictograms are in the shape of a red diamond with a white background. The old symbols had an orange background.

<http://www.hse.gov.uk/chemical-classification/labelling-packaging/hazard-symbols-hazard-pictograms.htm>

## 23. **Chemical Waste Classification, Storage and Disposal**

[https://www.gla.ac.uk/myglasgow/seps/chemical%20safety%20\(revised\)/](https://www.gla.ac.uk/myglasgow/seps/chemical%20safety%20(revised)/)

## 24. **Spillages**

Small Spills (less than 1 L):

- a) Wear proper personal protective equipment, including eyewear and gloves.
- b) Pick-up any broken glass using mechanical means such as forceps or tweezers and place in a puncture-resistant container for hazardous waste disposal.
- c) Using your laboratory spill kit, place the granules over the spill and allow the material to absorb. Place contaminated granules in a plastic bag. Put this bag in the container with the broken glass.
- d) Wash the affected area with a mild soap solution and place any additional materials in the waste container with the broken glass and granules.
- e) Remove disposable gloves and place them in the waste container. Seal the waste container and label it as hazardous waste. Tag with the white hazardous waste tag.
- f) Remove additional PPE and thoroughly wash your hands. Contaminated clothing or PPE may not be taken home or laundered without additional precautions, contact SEPS.

Large Spills (greater than 1 L):

- a) Cover the spill, if possible, to keep fumes down.
- b) Evacuate the area, closing the lab door behind you.
- c) Post a sign on the door stating, "DO NOT ENTER - CHEMICAL SPILL" (sign can be found in your Spill Kit).
- d) Call SEPS on Ext 5532.

## 25. **Liquid Hydrogen (LN2) Handling**

Liquid nitrogen is a hazardous cryogenic liquid (Temperature = -196°C). Skin contact with LN2 can cause: Cold burns, Frostbite and Hypothermia.

It is very important to wear PPE when handling liquid nitrogen i.e.

- Suitable gloves for pouring LN2 are NON-ABSORBENT cryogenic gloves. **They should NOT be dipped into LN2!**
- Lab coat

- Face shield or goggles
- Covered shoes.

**The Expansion rate of LN2 to Gas is 1:683.** A 25L flask would produce 18m<sup>3</sup> of gas, enough to fill telephone boxes! For this reason, it is very important that you only work with LN2 in a large open area of the lab because in an enclosed space, the resulting displacement of oxygen may be sufficient to cause asphyxiation.

In the lab, wear PPE and work with small volumes of LN2 in 1-2 L cryogenic flasks and when filling the flasks from the main 25L Dewar.

If you need to refill the 25L Dewar with LN2 from the external tank (located outside at the back of the Bower), **you MUST be accompanied. DO NOT ATTEMPT TO DO THIS BY YOURSELF.**

## 26. **GM Safety Policy**

Before working with new Genetically Modified Organisms (GMO), either plant, bacterial or mammalian, a Biological COSHH Risk Assessment must have been completed by the PI to assess the hazards involved and safety measures that need to be employed when working with them.

Information on the GM guidelines can be found on the SEPS website:

<https://www.gla.ac.uk/myglasgow/seps/biological%20safety/gmriskassessment/>