Welcome to Chemical Biology Facility. This document will help you familiarise yourself with issues concerning laboratory work in the department. There are links included so that you can access more information from the department’s intranet as you settle into your role.

The CBRF laboratories are managed by the Chief Technician, Magda Mos. You will be given an induction by Magda before you start to work in the laboratory, and this will include a tour of the buildings so that you can begin to find your way around the facilities. If you have any questions or concerns, you can contact her directly in our offices, by phone or e-mail.

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<tr>
<th>Name</th>
<th>Job Title</th>
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<tbody>
<tr>
<td>Dr Magda Mos</td>
<td>Chief Technician</td>
<td>Office – B108</td>
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<td><a href="mailto:m.mos@warwick.ac.uk">m.mos@warwick.ac.uk</a></td>
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<td>Tel: 024765 73823</td>
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OTHER USEFUL CONTACTS:

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<th>Main Campus</th>
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<td>EMERGENCY</td>
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<td>SECURITY</td>
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<td>HEALTH, SAFETY &amp; WELLBEING</td>
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<td>OCCUPATIONAL HEALTH</td>
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ACCESS AND SECURITY

CBRF takes the security of its buildings, information and members very seriously and has taken the following steps to ensure good security within the Department:

- Buildings are on permanent door card access control so only Department members or recognised visitors can enter and circulate within the buildings
- Day visitors must report to Chief Technician, and be given appropriate PPE in order to enter the laboratory
- Access to CBRF is restricted to members working within the groups of Bugg, Challis, Blindauer, Corre, Lewandowski, Dixon and Tosin
CBRF is guided by the University Health and Safety Policy Statement at all times and this can be found at the link below:

http://www2.warwick.ac.uk/services/healthsafetywellbeing/university_health_and_safety_policy_statement_as_approved_by_council_dec_2012.pdf

More specific topic guidance is also available on the Health, Safety and Wellbeing website http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/

**FIRE SAFETY**

Fire safety procedures and evacuation are covered in your general induction. Further information can be found here: http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/fire

Fire Assembly Points are located outside of Chemistry Department at Car Park 7

**FIRST AID**

A list of current first aiders is provided in each lab and also at: http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/first_aid/listoffirstaiders/#c

In CBRF plaster dispensers, eye wash stations, and emergency showers are situated in main lab areas. First aid boxes are provided at strategic points within the Department.

**INCIDENT REPORTING**

All accidents, incidents and near misses must be reported using the University Health, Safety and Wellbeing Report Form at:

http://www2.warwick.ac.uk/services/healthsafetywellbeing/incidents/incidentreport/

If you discover a major failure of service (eg: gas, electric, water, drainage, burst pipes, roof leakage) these should be reported immediately to Security 22222.

**LONE AND OUT OF HOURS WORKING**

If it is necessary to work alone or out of hours, please discuss the safety implications with your supervisor (PI) or Magda Mos, and put appropriate procedures in place.

Anyone working in the Chemistry Department outside of normal working hours (0730 to 1900 hrs, Monday to Friday, excluding official holidays) must sign in and out using the book provided close to the lift on the 2nd floor. This rule applies even if you are only doing office work.

Please remember to sign in and out of the building when you are working out of normal working hours. In an emergency, it is necessary to know who is in the building.
Good Laboratory Practice is essential if laboratories are to be safe places in which to work:

- Always follow the laboratory rules.
- Always carry out a pre-work risk assessment - follow instructions and any other guidance available including signs and notices.
- Do not start work if you are at all unsure about your task or if you have any concerns about the safety of the laboratory work. If in doubt – ask
- Lone working must be risk assessed and communicated.
- Be alert to hazards and your surroundings - consider others working near you.
- Be clear of correct waste management and how to deal with any spills.
- Know the procedure to follow in the event of an emergency.

Good Laboratory Practice:

- Use protective equipment as required and remove before leaving the laboratory
  - Wear your laboratory coat
  - Wear laboratory safety googles
  - Wear appropriate gloves and replace if damaged
  - Do not touch your face when wearing gloves
  - Cover any cuts and grazes
  - Use eye protection as required
  - Wear ‘sensible’ shoes in the laboratory – not open toed sandals
- Never eat, drink, smoke or apply cosmetics in the laboratory
- Wash hands before leaving the laboratory
- Lab coats must not be worn in areas where food and drink is consumed, nor in the toilets, or outside the facility.
- Keep work area clean and tidy – including fume hoods
- Personal items must be kept in lockers or office areas
- Where appropriate, use fume hoods and biological safety cabinets
  - Ensure the reaction is at least 150mm from the sash / front of cabinet
  - Close the sash when not actually working in the hood
  - Use overnight reaction cards when necessary

Working with electricity, lasers, ionising radiation, biohazards, gases etc all pose additional risks. Follow safe operating procedures and only use if you have been trained and assessed as competent.

Chemistry Laboratory (B133) Rules:

Before commencing your laboratory work you must discuss standard risk assessments (section D of handbook) with your laboratory supervisor.

Assessments 1,2,3,5,6,7,8,12,14,19,20,26,27,31,33,44,48,49,55 and 65 are compulsory reading.

http://www2.warwick.ac.uk/fac/sci/chemistry/chemintra/safety/handbook/
➢ MChem students are not permitted to work in the chemistry laboratory without a supervisor present. Another MChem student does not count.

➢ Concentrated acids should only be open and measured out in a fume hood wearing correct PPE.

➢ High-vac lines, you MUST complete a training session with nominated trainer before first use.

➢ Follow the rules for use of the rotary evaporators posted with the machines.

➢ All glassware should be cleaned after use by rinsing with distilled water (NOT tap water) AND acetone.

➢ Dispose of solvent waste correctly separating flammable, halogenated and metal wastes. Each metal has a specific disposal route.

➢ There are rotors for solvent waste disposal and collection of dry ice and liquid nitrogen.

➢ All Winchester of solvent must be kept in a flammable cabinet when not in use.

➢ You are responsible for disposing of your own Waste solids and Glass waste bins when full.

➢ Yellow overnight cards must be filled in correctly, including the date, for each reaction being left unattended overnight, highlighting ALL safety concerns.

➢ Your name and contact phone number MUST BE COMPLETELY LEGIBLE.

➢ The use of earphones/ i-pods and phones is strictly prohibited.

➢ DO NOT OPEN DOOR HANDLES WHILE WEARING GLOVES EVEN IF THEY ARE CLEAN

Every last Friday of the month, every member of CBRF is involved in deep clean of every laboratory space within CBRF. Your responsibilities will be explained to you by your supervisor. You might also be involved in laboratory rota. Please make yourself familiar with your duties.

PERSONAL PROTECTIVE EQUIPMENT

Lab coats, disposable gloves and safety glasses are available from Chief Technician.

All other PPE required by the risk assessment for the activity will be provided by your supervisor.

All masks will require fit testing by law. Your technical team will arrange this.

WASTE MANAGEMENT

Disposal of waste from the Department is tightly regulated. Please ensure that you use the correct waste stream, as shown below.

More information is provided at:

http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/biologicalsafety/biologicalwaste

http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/biologicalsafety/biologicalwaste/disposalroutes/uow_-_waste_streams.pdf

http://www2.warwick.ac.uk/fac/med/staffintranet/dopss/tsx/az/wastemanagement/
University of Warwick

Biological Laboratory Waste Streams - User segregation options flow

Revised June 2013 (Neil Hawthorne)

Notes:
- It is recommended that organisms and cultures at CL1 and CL2 are autoclaved prior to off-site destruction. Waste that contains GM materials must be autoclaved prior to being sent off site.
- Orange Bag can go for alternative treatment. PHS Waste services won’t accept large quantities of plastics for ATP
- Non-contaminated, non-infectious wastes which may be sensitive and can’t go as domestic wastes, such as non-contaminated gloves and clean equipment etc.
HANDLING CHEMICALS SAFELY

The risks of handling any chemical must be assessed before purchase or first use in any procedure.

For further information please see:

http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/chemical_safety/

Please ensure you know how to correctly store, handle, dispose, or deal with any spillage of all chemicals handled. Emergency showers and eye wash facilities are provided throughout the labs.

There is a chemical spill kits located in chemistry lab (on the top of the yellow solvent cabinet) to deal with larger spills. Ensure that you know the location of your kit. If you need to use any items, please tell your Chief Technician so that the kit can be replenished promptly.

HANDLING BIOLOGICAL MATERIALS SAFELY

Work with biological material must be carried out in line with the guidance on ‘Biological Risk Assessment and Working Safely’ at:

http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/biologicalsafety/riskassessmentandsafeworking/

The University Biological Safety web pages provide detailed guidance to assist with risk assessments, risk management, and necessary approval and licensing procedures. See:

http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/biologicalsafety/

Necessary facilities for the handling of biological materials are provided eg containment suites for use of Category 2 and 3 organisms. You will receive a detailed induction if you require access to these facilities.

HANDLING GENETICALLY MODIFIED MATERIAL SAFELY

Work with genetically modified material must be carried out in line with the guidance given in the ‘Genetic Modification Risk Assessment Guide’ at:

http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/biologicalsafety/gmriskassessmentguide/

The University Genetic Modification web pages provide detailed guidance to assist with risk assessments, risk management, and necessary approval and licensing procedures. See:

http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/biologicalsafety/

HANDLING RADIOACTIVE MATERIAL SAFELY

To ensure compliance with regulations, work with radioactive isotopes can only be carried out by trained and registered personnel, and only in designated areas. All rooms containing isotopes have warning signs on the entrance door. If you require training please speak to a member of the Technical Team. Further information can be found at:
http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/ionising_radiation/policy/  

Any personnel whose work involves use of equipment emitting non-ionising radiations of the following nature: lasers, high intensity light, EMF, UV, IR, noise (low frequency, audible and ultrasonic) is responsible for assessing the risks prior to starting work and should contact the University Radiation Protection Officer for advice.

HANDLING GASES SAFELY

In the labs there are various pieces of equipment which are connected to gas lines or gas cylinders. Consequently, this is associated with hazards from flammability to oxygen deprivation or enrichment. All rooms containing gas supplies have warning notices on the entrance doors.

http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/gas_cylinders

http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/gas_cylinders/handlingcylinders/

Department complies thoroughly with gas safety regulations, gas lines are serviced and leak-tested annually, regulators are inspected annually and replaced every 5 years, gas cylinders are tagged and audited, monitoring systems are serviced twice a year, and all necessary training is provided by the Technical Team.

HEALTH SURVEILLANCE

Some aspects of your work might require mandatory health surveillance and/or vaccination. If you have concerns about the impact of laboratory work on your health, report it to your supervisor who may refer you to the Occupational Health Service:

http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/occupationalhealth

EQUIPMENT SAFETY

- Before you use a piece of equipment for the first time ensure you are shown how to use it correctly.
- Report any broken equipment to your technical team who will organise its repair
- Do not attempt to mend any item yourself.
- Please note that all equipment will need to be accompanied by a completed decontamination certificate before it is sent for repair. Decontamination certificates can be found at http://www2.warwick.ac.uk/fac/sci/chemistry/chemintra/research/facilities/chembiol/safety/decon
- If you need to leave a piece of equipment running overnight discuss the safety implications with your supervisor or Technical Team and label it with your name and contact details (using yellow form).
WASHUP AND AUTOCLAVING SERVICE

All general laboratory waste requiring autoclaving is dealt with through the microbiology lab. If you require autoclaving for your media, glassware, tips or tubes, please leave it within clean area of microbiology lab. Glassware which consist an inoculated cultured must be left clearly labelled within the ‘waste’ designated area ready for autoclaving.

Autoclave runs can be carried out ONLY by trained personnel.

Please remember to collect your flasks, tip boxes, and any other consumables on regular basis.

STORES

Stores provide a wide variety of consumable items.

You will be issued with a Stores Code to enable you to “purchase” items.

Please refer to Stores opening times, displayed in various locations at CBRF.

ORDERING (OPeRA)

For items not available in Stores the electronic ordering system (OPeRA) should be used. Details of this are at:

http://www2.warwick.ac.uk/fac/sci/lifesci/intranet/staffpg/support/finance/purchasing/opera/

Please speak to your technical team if you require any help with this.

PACKAGING AND TRANSPORT

Certain laboratory materials (including dry ice) are classed as dangerous goods and must not be sent in the post via Royal Mail. Dangerous goods must be packaged and sent by a person trained and certified in the relevant transport regulations. Technical team is trained and certified as such. The packaging required to courier any material is available from Stores.

MANUAL HANDLING

If you are required to do any lifting or carrying of bulky or heavy items as part of your role you should obtain guidance from:

http://www2.warwick.ac.uk/services/healthsafetywellbeing/guidance/lifting_handling/

EXTRA TRAINING

Additional training and/or induction is required for use of the following facilities:

- Cat 2 lab
- Containment Suites
- Radiation Suites

And for the use and handling of the following:
USEFUL INFORMATION

The following websites may be of interest:

Piirus  www.piirus.com

Piirus can help you to:

- make contacts for your research and your career, both within your institution and beyond
- find expertise on a specific topic or technique
- make interdisciplinary connections to refresh your work and widen funding opportunities
- improve the visibility of your research outside your institution

Warwick Ventures  www.warwickventures.com

Warwick Ventures commercialises innovations produced from world-leading research at the University of Warwick.

‘We offer advice and services to the University’s innovators. Our role is to support them throughout the process of generating impact and a commercial return from their research, whilst they maintain their academic focus.’
Things to do next:

- Read the booklet and ask for assistance if anything is not clear
- Attend the Departmental Induction (contact Rob Jenkins if unclear)
- Work through Moodle Induction module:
  [http://www2.warwick.ac.uk/fac/sci/chemistry/chemintra/safety/induction/](http://www2.warwick.ac.uk/fac/sci/chemistry/chemintra/safety/induction/)

- Familiarize yourself with CBRF intranet:
  [http://www2.warwick.ac.uk/fac/sci/chemistry/chemintra/research/facilities/chembiol/](http://www2.warwick.ac.uk/fac/sci/chemistry/chemintra/research/facilities/chembiol/)

- Work through CBRF Induction presentation and take the quiz:
  [http://www2.warwick.ac.uk/fac/sci/chemistry/chemintra/research/facilities/chembiol/induction/](http://www2.warwick.ac.uk/fac/sci/chemistry/chemintra/research/facilities/chembiol/induction/)