

Department of Pharmacy & Pharmacology

Postgraduate Research Handout 2017/18

1. Welcome to the Department

1.1 Department of Pharmacy & Pharmacology

Welcome to the Department of Pharmacy & Pharmacology. You will probably have heard about the excellence of research and teaching at Bath from league tables and world rankings, but these give little indication of the department's character as somewhere to study and undertake research.

Pharmacy and Pharmacology is one of the largest departments in the university and we welcome students and scholars from more than 20 countries as well as the UK. Each will be here because of the high standards of achievement that they have set for themselves and yet there is another characteristic of 'Bath people' and that is their warmth and friendliness. The result is a department that is welcoming and friendly whilst enjoying the highest levels of success.

The department is home to several world-class groups undertaking leading edge research in pharmacy and pharmacology, many of which involve interdisciplinary approaches to questions in drug discovery, drug delivery and drug action.

Students and research scholars alike make full use of the world-class sports facilities on campus and there are plenty of opportunities to contribute to the creative arts and pursue personal beliefs. Just 'down the hill' is Bath, one of the world's most beautiful cities with its cosmopolitan mix of lively bars and quieter cafés and restaurants.

Prof. Stephen Ward

Head of Department

2. Department Structure

2.1. Who's Who in the Department

See <http://www.bath.ac.uk/pharmacy/contacts/> for a full list of Department staff.

Some contacts most relevant to PG students are:

Head of Department
Director of Studies for PGR Students
Department Coordinator
Department Secretary
Department Superintendent /Safety Advisor

Prof Stephen Ward
Dr Lorenzo Caggiano
Helen Thame
Eleanor Jones
tbc

Technical Team Leader
Chemical Safety Officer
Purchasing Technician
Athena SWAN representative
Equality and Diversity co-ordinator

Jo Carter
Dr Tim Woodman
Edwina Wilkinson
Dr Sarah Bailey
Dr Charareh Pourzand

The Departmental Enquiries Office is in 5W Level 3 and is open on weekdays from 09.00 to 17.00.

Office telephone number: (01225) 38 3782
Fax number: (01225) 38 6114
Address: Department of Pharmacy and Pharmacology
University of Bath
BATH BA2 7AY

2.2 Research Areas of the Department

The Department has a long-standing and internationally recognised reputation for high-quality research in the pharmaceutical and pharmacological sciences, spanning the drug development process from target identification and drug design, synthesis and structural optimisation, through to drug formulation and delivery, pharmacovigilance, adherence and drug use. It provides a broad platform for cutting-edge research and is committed to maintaining its position of international excellence. In the most recent Research Excellence Framework (REF 2014), 91% of the Department's research was rated as world-leading or internationally excellent. Postgraduates have the opportunity to work on projects ranging from fundamental aspects of drug discovery, action and development to applied areas that are closer to healthcare delivery. Currently, there are more than 50 research postgraduates and 25 post-doctoral research officers working in the Department.

Our research is grouped into six themes:

- Biological chemistry and drug design
- Research in Medicines Design (ReMedDes)
- Inflammation, infection and immunity
- Neuroscience
- Population and lifelong health
- Health services research

Visit www.bath.ac.uk/pharmacy/research to find out more.

Key facilities

The department benefits from well-managed, expert-resourced, multi-user research facilities. These include the Bioscience Services Unit providing state-of-the art facilities for transgenic animals and in vivo pharmacology, and the Chemical Characterisation and Analysis Facility (CCAF) combining cutting-edge analytical equipment (a range of X-ray diffraction, NMR and LC-coupled mass spectrometry apparatus) with extensive in-house expertise. The Microscopy & Analysis Suite offers a comprehensive range of imaging equipment (electron, confocal, high-content, Raman, and scanning probe microscopies, single-cell calcium imaging, flow cytometry and cell sorting) and incorporates the recently established advanced hypoxic imaging facility with expertise essential for research at the chemistry-biology interface. Additional departmental facilities exist for synthetic chemistry, tissue culture, intra-cellular/patch clamp electrophysiology, and real-time PCR analysis. Research in the department also benefits from a licence to the Clinical Practice Research Datalink (CPRD) database.

3. Health and Safety

3.1 Safety Policy

Dr Tim Woodman is our Chemical Safety Officer and Chemical Safety Advisor to the University and is located in 9W 0.03 (NMR suite) or 5W 3.04 (office) call ext. 6778

Statement of Intent

A concern for health and safety is an integral part of the management of the Department of Pharmacy and Pharmacology. This policy statement indicates the organisation, arrangements, monitoring and remedial actions which will be used by the Department to implement the requirements of the University Safety Policy, and the local Department rules. The local rules are in addition to, and not a substitute for, the requirements of the general University Safety Policy. The Department will make available resources of both time and money, and arrange for training and instruction in safety matters, so far as is reasonably practicable, so that the Safety Policy can be implemented.

Local Rules

Everyone should comply with the following points:

Before you start work

1. Any research work should be discussed and approved by your supervisor and not started until a **Risk Assessment Form** has been completed by you and your supervisor. This should be kept in your **Laboratory Safety File**.
2. If you will be using chemicals or biological agents, the appropriate **CoSHH** (Control of Substances Hazardous to Health) form should be completed. One copy of this should be kept in your **Laboratory Safety File**. A video explaining the COSHH regulations is available from the Chemical Liaison Officer.
3. Mrs Jo Carter is acting Radiation/Laser Safety Liaison Officer, and is also the Safety Liaison Officer for work with pathogens, genetic manipulations and human tissues. If your work involves any of these areas you should be registered with the appropriate Departmental Safety Liaison Officer, and the appropriate University Safety Officer, and attend an approved training course if necessary.
4. If you are using human tissues or fluids you should discuss the possibility of having a Hepatitis B vaccination.
5. If you will be handling animals you should have an up to date tetanus injection and be aware of the signs and symptoms of allergy should they occur.
6. If your work requires prolonged use of a VDU you may be entitled to free eyesight tests. You may also be eligible for Safety Prescription Spectacles if you are working in the chemistry laboratories.
7. Make yourself familiar with the safety equipment in your laboratory and the location of the nearest telephone, fire extinguisher, fire alarm, first aid box and emergency exits.
8. If you will be working outside normal hours (8:00am – 6:15pm) or at weekends you need to be registered to use the Department's Security system. This can be done via the Department Superintendent.
9. If you have a health problem which could be affected by the laboratory environment, you must inform the Departmental Safety Liaison Officer and the University Medical Officer in Quarry House.
10. Undergraduate classes have been assessed by the course co-ordinator and these assessments will be incorporated in your practical notes, but see below for further details relating to undergraduate classes.
11. Read the University Safety Manual as this provides additional safety information and the names of key University Safety Personnel. Copies of this are held by the Safety Liaison Officer. It is also available on the University Home Page on the University Website. <http://www.bath.ac.uk/hr/stayingsafewell/contacts.html>

Once you start work

1. Always wear laboratory coats when you are in the laboratory. If you are wearing protective gloves do not contaminate door handles and taps with hazardous materials. Do not wear open shoes (flip flops, sandals or crocs), or other clothing which would compromise your safety in the event of a safety incident. Open cuts/sores should be protected from infection/contamination.
2. Do not smoke or apply cosmetics in the laboratories. Food containers and cups should not be taken into or through laboratories.
3. If you see a fire, sound the alarm immediately. If the fire cannot be dealt with quickly and safely, evacuate the building by the nearest exit. Following evacuation the assembly point for 5West and 7 West is outside POLDEN COURT.
4. Do not obstruct routes to emergency exits with equipment and keep bottles of solvents well away from exit doors.
5. Do not attempt to re-sheath syringe needles; once used place directly in a sharps disposal bin.
6. When disposing of waste material ensure that you comply with the **Waste Disposal Guidelines**. A copy is located on the door of every laboratory. Do not put unauthorized materials down sinks. If in doubt consult Mr Ben Groombridge (5W 3.18) or Mr Russel Barlow (ext. 3297) who will offer specialist advice for the correct disposal of hazardous waste. It is particularly important to prevent flammable solvents being disposed of via sinks. Bottles should be rinsed out and the label defaced before being placed in the waste bins.
7. Radioactive waste should be disposed of in the bins provided or approved sinks. A record of the radioactive material used and disposed of should be entered on your **Track Record**.
8. Rinse out all glassware prior to sending it for washing up by the Laboratory Assistants. Do not return Pasteur Pipettes and needles for washing up; dispose of them in the **Sharps Bins** that are provided for this purpose.
9. If you notice a potential hazard, immediately bring this to the attention of a Technician in your area.
10. When you leave the laboratory at the end of the day please ensure that all solvent bottles are returned to the storage cupboards, and turn off equipment which has been used during the day. Any equipment or reactions which are left running overnight should be clearly labelled with a **Yellow Information Card**.
11. If you work outside normal hours, i.e. before 8:00 am and after 6:15 pm, or at weekends, you must register with the Department Security system, and **sign in and out** on the notice boards in the foyer of 5 West and other main doors. Do not leave security doors unlocked. **Never work alone when carrying out work involving hazardous procedures.**
12. If you do have a safety incident, or an accident resulting in injury, fill in an **Incident Report Form** available in the Department Office and give a copy to the Departmental Secretary for our records.
13. If you notice something which you regard as a hazard, please complete a **Notification Of Hazard Form**, which can be obtained from the Department Office, and inform the person in charge of the laboratory.

Laboratory Safety Information

While in the Pharmacy and Pharmacology laboratories you will carry out various experiments which if not performed properly could present a risk to yourself and to others working with you. If you see anything which gives you concern over safety please inform the person in charge of the class.

There are potential risks arising from the use of pressurised vessels, centrifuges, microbiological and tissue culture work, chemicals, drugs, needles, ampoules, gases, radiation sources, exposure to allergens and electrical equipment. Therefore, do not carry out any experiment unless you are fully

aware of the correct procedures. If you are unsure, do not proceed without taking advice from the class supervisor. Do not attempt to repair faulty equipment.

If you have a health problem which could be affected by laboratory work you must inform the Department Safety Liaison Officer, and the University Medical Officer in Quarry House.

When carrying out individual projects during the later stages of your course you and your supervisor(s) will need to make a **Risk Assessment** prior to any practical work being carried out. This may also involve filling out **Control of Substances Hazardous to Health (CoSHH)** forms. **Risk assessments** have been made by members of staff on all of the standard practical classes you will be carrying out and the level of safety is considered to be adequate to comply with the COSHH regulations.

When in the laboratories you must comply with the following rules.

1. Make yourself familiar with the location of fire extinguishers and fire alarms together with evacuation routes. On hearing a fire alarm leave the building by the nearest safe route and assemble outside **POLDEN COURT** which is the assembly point for 5West and 7West.
2. Laboratory coats must be worn at all times and be properly fastened. Cuts/sores etc should be covered to prevent contamination.
3. Safety spectacles must be worn at all times in the laboratory, and protective gloves must be used when required.
4. Long hair or loose clothing should be tied back if naked flames or rotating equipment is being used.
5. Smoking, eating, drinking and the application of cosmetics are forbidden in the laboratories.
6. Pipetting by mouth is forbidden.
7. Take special care when weighing out chemicals as this is the time when maximal exposure to toxic agents can be expected.
8. Do not bring personal bags, coats etc. into the laboratories.
9. If you do have an accident, report it to the person in charge and fill out an **INCIDENT REPORT FORM** which is available in the Department Office. This should then be returned to the Department Secretary.
10. Clear up any breakages and spillages and inform the person in charge of the class. When you have finished your work leave the laboratory in a clean state.
11. Never work in any laboratory unsupervised.
12. If you notice something which you regard as a hazard, please complete a **NOTIFICATION OF HAZARD** form, which can be obtained from the Department Office, and inform the person in charge of the laboratory.

Public Liability Insurance

The University has a public liability insurance policy to cover any claims brought by students or members of the public against the University where the University has been negligent. This policy does not, however, cover students who come to harm because of their own fault, or cause damage of their own volition.

Further Information

Further safety information can be found on the back of laboratory doors, where key information is summarised. Additional information on the Department's health and safety policy can be found on the Pharmacy and Pharmacology Intranet, updates and latest procedures will also be posted there. There you can also obtain information on matters such as:

Decontamination of Biological waste
Handling of Human Blood



UNIVERSITY OF
BATH

Storage and use of human material
Taking human blood
CoSHH Form