



Trinity College Dublin

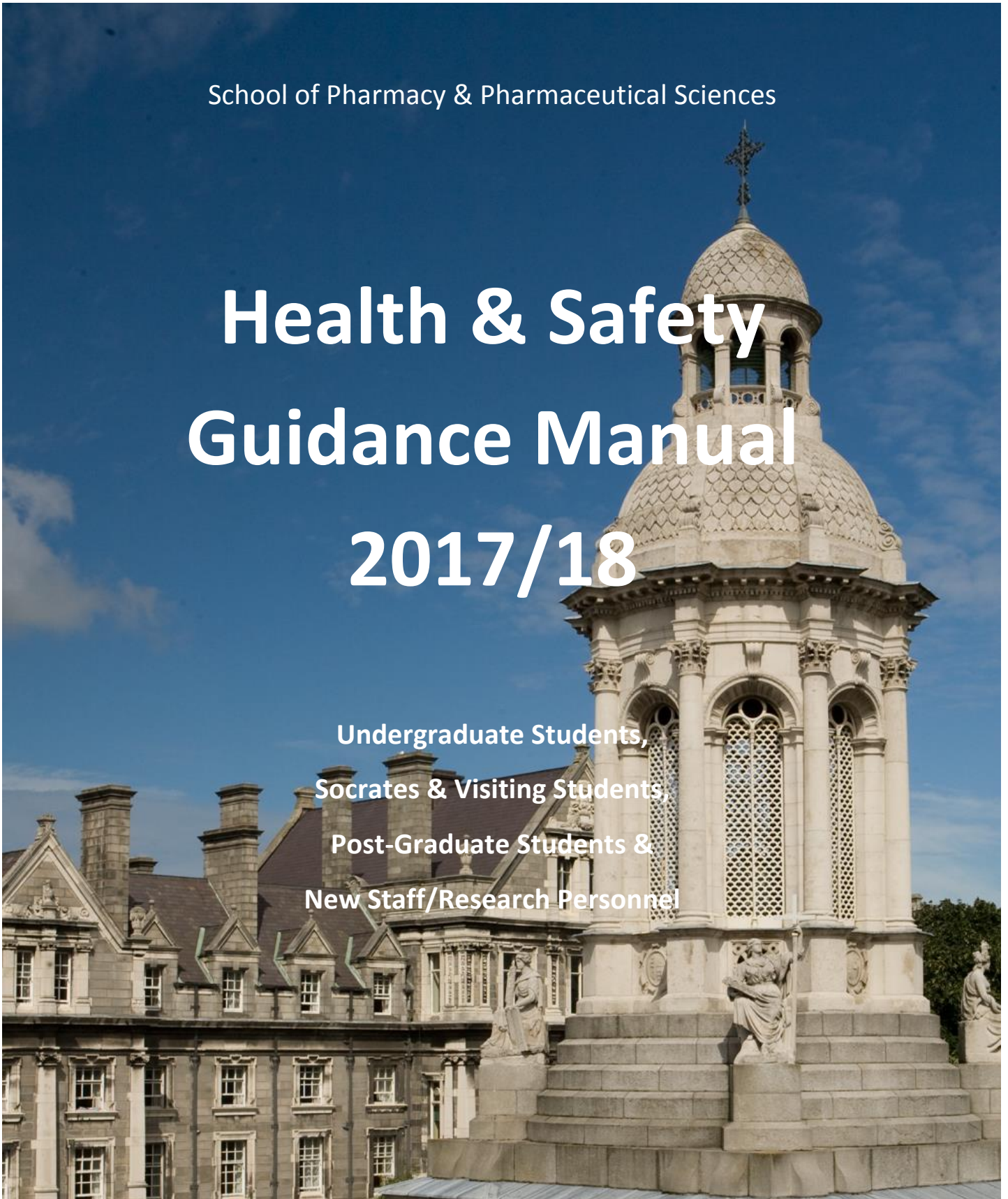
Coláiste na Tríonóide, Baile Átha Cliath

The University of Dublin

School of Pharmacy & Pharmaceutical Sciences

Health & Safety Guidance Manual 2017/18

Undergraduate Students,
Socrates & Visiting Students,
Post-Graduate Students &
New Staff/Research Personnel



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Section 1

Statement of Intent

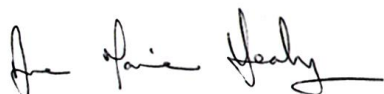
The School of Pharmacy and Pharmaceutical Sciences is committed to ensure compliance within the *Safety, Health and Welfare at Work Act 2005* requirements and legislation and to the Colleges safety codes of practice and guidelines. All reasonable steps will be undertaken to ensure that no persons, including staff, students or onsite visitors are put at risk by or as a result of the activities of the teaching or research laboratories. Resources as far as reasonably practical will be made available to ensure these steps are adequately controlled. All staff and students will receive adequate training to ensure all laboratory activities are undertaken in a safe manner with pro-active approaches being taken. This local statement will be kept up to date through annual review and if necessary revision.

Objectives

By achieving all of the above the research labs will ensure that it meets its objectives by:

- Ensuring activities are managed and conducted in a manner that ensures the safety, health and welfare of all employees, students, visitors and contractors/service providers.
- Encourage health and safety culture as an integral part of work by all staff and students ensuring that students develop good safety habits that they will carry on into later life.
- Where hazards and risks to health cannot be eliminated from articles or substances suitable protective clothing and equipment are provided and strictly implemented.
- Implementing plans and procedures to be used in the events of emergencies and/or serious danger.
- Conforming to the requirements of the Safety, Health and Welfare at Work Act 2005 and any relevant subsidiary legislation.

Signed:



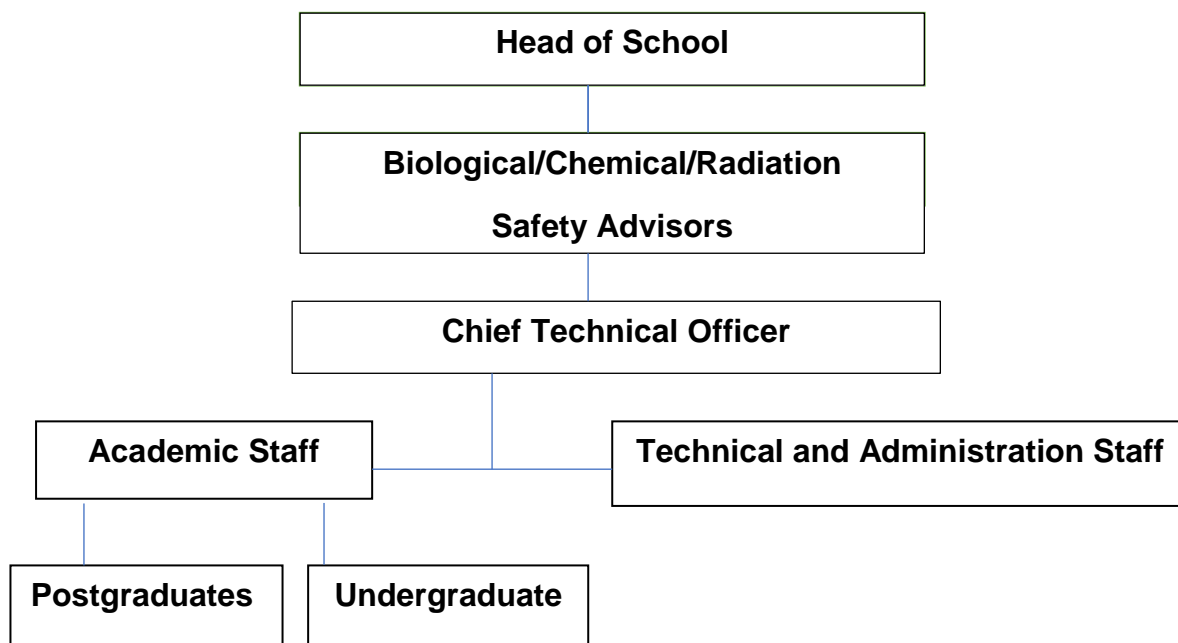
Professor Anne Marie Healy, September 2017

1.1 Health and Safety

The purpose of this document is to provide information for new staff and students in the School while working in laboratories, offices on field trips. The health and safety of staff, students and visitors is important. The *Safety, Health and Welfare at Work Act 2005* requires that you take all precautions, as far as is reasonably practicable, to avoid endangering yourself or others by your activities. The Health and Safety Statement and Codes of Practice for the Department areas are set out below and you must read, understand and abide by them. You are required to sign the enclosed declaration at induction and return it to the School Office. Students will be excluded from all laboratories and workshops until they have signed and returned the declaration. This Departmental Safety Statement supplements the College Safety Statement and College Policies, which are contained in the Staff Handbook and are accessible on the web at:

www.tcd.ie/Buildings/Safety/statement.html

The organisation chart for health and safety within the School is shown below:



All personnel within the School have a responsibility to contribute to the continuous monitoring of safety performance on a day to day basis. This can be achieved by forwarding comments, queries and complaints on safety matters to the School Safety Officers or Chief Technical Officer.

Section 2 – General Safety Rules

2.1 Fire Alarm Procedure

ACTION IN THE EVENT OF FIRE

School of Pharmacy & Pharmaceutical Sciences ON DISCOVERY OF FIRE



RAISE THE ALARM, by breaking the nearest break-glass or call point

LEAVE the building using nearest route, closing doors behind you

NOTIFY Building Security at 1999 (PANOZ) 3999 (TBSI)

PANOZ- REPORT to your Assembly Point at 'E'- to the sides of the Science Gallery or to the designated "safe areas in the case of fire" Refuge Point beside the lifts

TBSI-REPORT to your Assembly Point at 'G'- to the sides of the Institute on Cumberland St South and Sandwich Street

	 		In the event of a fire alarm the access area for both lifts in the Panoz Institute act as refuge area with emergency communication system.
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ON HEARING THE FIRE ALARM

LEAVE the building using nearest route, closing doors behind you

REPORT to your assembly point as above

DO NOT TAKE RISKS

DO NOT RETURN to the building for any reason until authorized

DO NOT USE LIFTS, with the exception of wheelchair users who proceed to refuge areas described above.

EMERGENCY EXITS

CHECK AND FAMILIARISE yourself with the nearest exit(s) from your building, break glass units and the location of your Assembly Point. **KEEP EXIT ROUTES CLEAR** at all times

FIRE EXTINGUISHERS

KEEP ACCESS CLEAR, report any faults and only use if trained to do so

GOOD HOUSEKEEPING

Keep your area clean, tidy and clutter free. Remove rubbish regularly and report any electrical faults to States and Facilities 896-4000

2.2 Emergency Details

The internal telephone number 1999 provides immediate access to professional assistance on a 24-hour basis.

Be prepared to state the:

1. Type of assistance required (ambulance, fire-brigade, police etc...)
2. Type of emergency (fire, injury, etc...)
3. Name, extension number and location (also mobile if possible)

If possible and safe to do so, keep close to the telephone in order to give further information should it be required by the emergency services.

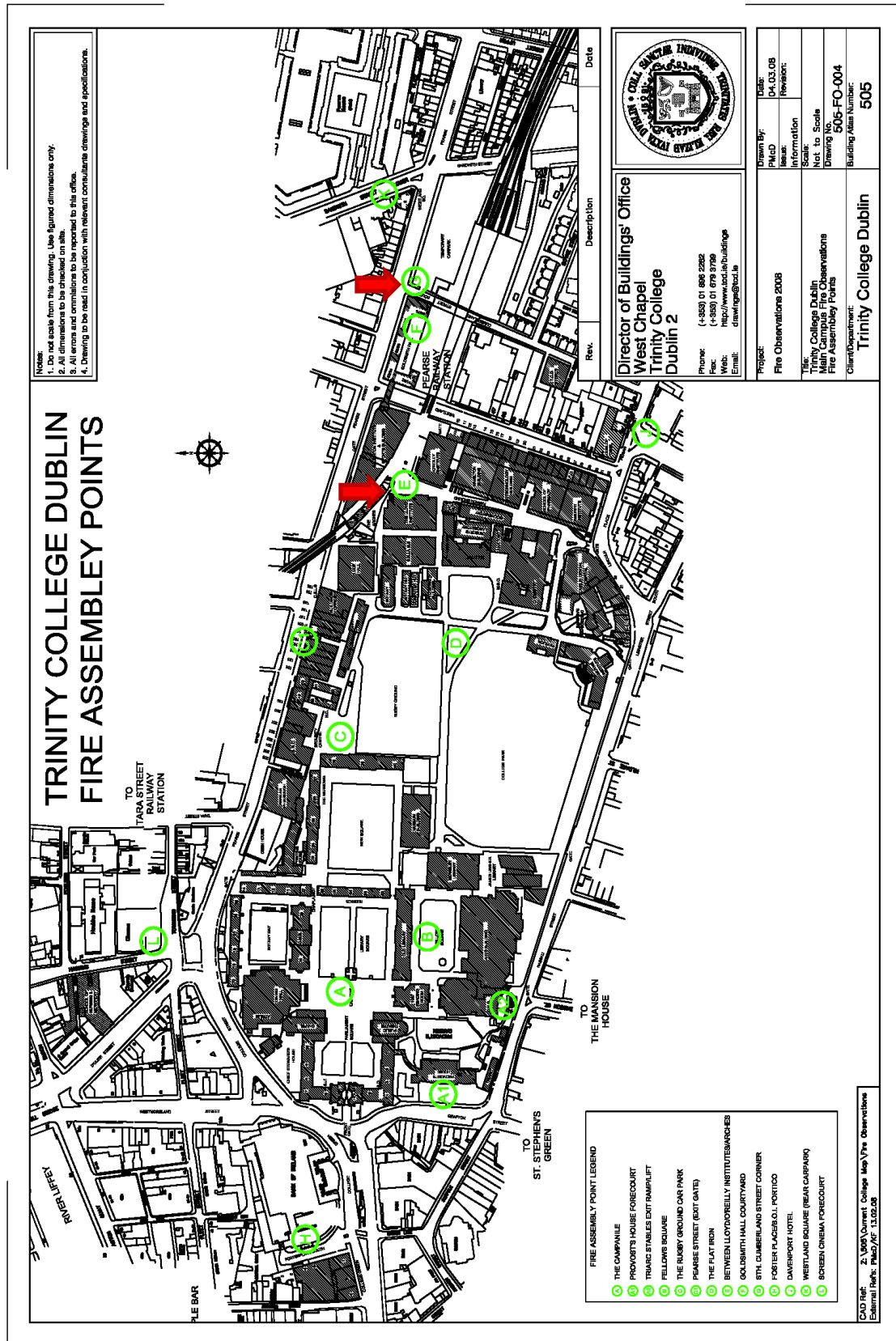
This number should only be used in an emergency. The 24 hour security centre is at 1317 (018961317) for non-emergency calls.

2.3 Fire Assembly Points

PANOZ- **REPORT** to your Assembly Point at '**E**'- to the sides of the Science Gallery or to the designated "safe areas in the case of fire" Refuge Point beside the lifts

TBSI-**REPORT** to your Assembly Point at '**G**'- to the sides of the Institute on Cumberland St South and Sandwich Street

2.4 Fire Assembly Points Map



2.5 First Aid

For serious injuries during normal office hours emergency medical attention can be obtained from the Student Health Services by contacting Ext. 1556. For minor injuries such as cuts or burns assistance may be via members of staff. First aiders at the School of Pharmacy are: Dr. Carlos Medina, Brian Talbot and Trevor Woods. Should the local first aiders be unavailable then the emergency services can be contacted on Ext. 1999 or 01-8961999 (PANOZ) and Ext. 3999 (TBSI) or 01-89633999.

SAVE THOSE NUMBERS ON YOUR MOBILE PHONE AS A CONTACT!!

First aid boxes will be kept in all laboratories and maintained via Technical officer staff members. If contents of the box have been used or noted as missing please contact the technician to replace missing or outdated items.

2.6 Reporting of accidents

All accidents and dangerous occurrences must be immediately reported to the School Safety Officer. In the case of accidents leading to personal injury the School Safety Officer must fill out the official College Accident/Incident form including details of witnesses. These forms can be found at: <https://www.tcd.ie/estatesandfacilities/health-and-safety/Accident-Reporting/>

The points of contact within the School for such details are:

Biological Safety Officer - Asst. Prof. Maria Santos-Martinez

Email: santosmm@tcd.ie Telephone: 896 4281

Chemical Safety Officer - Mr. Ray Keaveny

Email: rkeaveny@tcd.ie Telephone: 896 2814

Radiological Safety Officer - Assoc. Prof. Andrew Harkin

Email: aharkin@tcd.ie Telephone: 896 2807

2.7 Access to School Buildings

The normal working hours for the School are 08:00 – 18:00, Monday to Friday. Outside these hours is limited strictly to authorized staff, postgraduate students and authorised visitors and contractors. Contractors and maintenance personnel must be made aware of the hazards in the areas to which they are admitted.

Visitors must be informed of all school safety rules, are aware of local fire evacuation procedures and have been informed of any special risks associated with area. They should not be left unattended unless suitably qualified in the laboratory. Transition year students who are attached to the school are classified as visitors.

For research Postdocs, Post-grads and staff a 'late book' will be kept in the stairway entrance to the laboratories on the ground floor in PANOZ and in the Security Desk in the TBSI lobby. They must be signed in and out after the 08:00-18:00 time period, or at any time on a Saturday, Sunday or public holidays. All laboratories and offices must be vacated by 10pm.

2.8 Working in Isolation

Working on experiments or laboratory work outside normal working hours is not permitted without prior authorisation from the project supervisor after he/she has conducted a full risk assessment and devised a safe systems of work should an accident occur. Another person **must be close by** when all experiments are taking place who is aware of their presence and activity so that they can summon assistance in the event of an accident. All laboratories must be vacated by 10pm.

Isolated individuals must not carry out potentially hazardous work or activities at any time.

2.9 Out of hours Lectures/Events

All out of hours events being organised by a School member or using School facilities can only be carried out following the completion of an Event Management Plan. Routine events such as meetings and lectures require a safety management checklist while Non-Routine events require a safety management plan. Forms and details for these can be found at:

<https://www.tcd.ie/estatesandfacilities/facilities-and-services/event-planning/>

2.10 Travelling for Work

The college provides a business travel insurance scheme with cover only being provided once the journey is authorised via the Head of School and a travel insurance form has been completed and returned to the estates and facilities department prior to the start of the journey.

Travel insurance forms and other details can be found at:

<https://www.tcd.ie/estatesandfacilities/shared-admin-and-support/insurance/>

Section 3

Safety in Teaching Labs and Lecture Theatres

The following rules apply specifically to all staff, demonstrators and undergraduate students who are authorized to enter and work in the teaching laboratories and lecture theatres of the School. Please note that all demonstrators and technical officers must have completed the Fire Extinguisher training course before entering the laboratory.

- All staff and students must have read and abide by the Health and Safety Guidance manual issued by the School of Pharmacy and Pharmaceutical Sciences.
- A suitable laboratory coat must be worn while in the laboratories. **Students will not be allowed to attend a practical if they do not have a laboratory coat.**
- Safety glasses must be worn when in laboratories involved with access/use of chemicals. Those wearing spectacles must wear the 'Pulsafe' kind which go over the normal spectacles. Contact lenses may constitute an additional hazard.
- Shoes should have non-slip soles, and should cover the feet. Open toed sandals, flip-flops, high heels, ballet-style, crocs and canvas shoes/runners are not allowed.
- Long hair must be properly tied back and adequately restrained.
- No loose hanging jewellery is permitted in the laboratory.
- Gloves must be worn in all laboratory environments involving the use of chemicals or biological agents.
- Coats, bags or personal belongings must not be left on lab benches or anywhere that they could cause an obstruction.
- Students should not congregate at the entrance to a lab or lecture theatre or at building entrances.
- Students are not permitted to work unsupervised without the explicit permission of the lab supervisor.
- If any glass apparatus/container/pipette breaks while in use please inform a member of staff immediately to avail of a clean-up kit and hazard control.

- Students and staff must make themselves familiar with the European Standard Chemical hazard symbols shown below and make use of any suitable arrangements provided via the instructions printed on the chemical container or the Safety Data Sheet available online.

	Gas under pressure Symbol: Gas cylinder
	Explosive Symbol: Exploding bomb
	Oxidising Symbol: Flame over circle
	Flammable Symbol: Flame
	Corrosive Symbol: Corrosion
	Health hazard/Hazardous to the ozone layer Symbol: Exclamation Mark
	Acute toxicity Symbol: Skulls and Crossbones
	Serious health hazard Symbol: Health hazard
	Hazardous to the environment Symbol: Environment

- If any chemical spill occurs causing contact with skin/body/eye please inform a member of staff immediately to avail of first aid assistance.
- Please ensure caps are replaced on all chemicals and left at the end of bench when experiment is completed.

Section 4

Safety in Research Laboratories

The following rules apply specifically to all staff, demonstrators, undergraduate students and visitors who are authorized to enter and work in the research laboratories of the School.

If you suspect you may be pregnant, or know you are pregnant, an early appointment with the College Health Centre is recommended. You should inform your College tutor (students only) and your local safety officer(s) as soon as pregnancy has been confirmed. They will advise you of any risks involved and may make certain recommendations to you to ensure that you are not placed in potentially hazardous situations.

Authorized access

Access to each research laboratory is strictly limited at all times to those individuals authorised by the appropriate research supervisor. In-case of visiting researchers and new staff the research supervisor is responsible for ensuring that the appropriate safety training is provided.

General Laboratory Practice

- All researchers and staff have a responsibility to maintain a tidy, well organised and safe laboratory environment with a safe means of access and egress.
- Experiments should be designed as fail-safe and detailed assessments of the likely hazards and risks associate with their experimental systems and procedures.
- Research supervisors have a responsibility for ensuring that such systems and procedures meet appropriate safety standards. Research supervisors must keep a written record of risk assessments carried out and a copy lodged with the School Safety Officer. The forms can be found at <https://pharmacy.tcd.ie/Safety/local/safety-related-forms-list-and-risk-assessments.php> or in *Appendix A*
- All new pieces of equipment must have a risk assessment carried out via local Technical Officer and signed via Head of School. This should be laminated and left outside each relevant laboratory. All personnel using the equipment must read the risk assessment before using each piece of equipment. The risk assessment for this is provided in *Appendix B* and should be revised every two years.
- All researchers have a personal responsibility to make correct use of all personal protective equipment and safety aids provided to minimize risks to themselves or other laboratory users while carrying out experiments or during equipment use.

- Researchers must not undertake any new experimental procedures unless training is provided and inform any local/relevant users of modification to experimental procedures or research equipment.
- When left running unattended over any period of time all experiments and equipment should have an unattended apparatus form attached stating relevant hazards, contact information and shutdown procedures in-case of emergency. These forms will be made freely available around the laboratory and are available in *Appendix C*
- Smoking is not permitted in all college buildings.
- Always be vigilant in the need to prevent a fire from occurring in regards to the use of chemicals or electrical equipment (details provided in chemical section). Please make a note of the nearest fire exits so that if a fire breaks out you know how to get out.
- Note the location and method of operation of fire blankets and fire extinguishers. Do not use fire extinguishers unless you have been trained in their use.
- The use of headphones is not permitted in the research laboratories or offices.
- In some research laboratories Oxygen Monitor Alarms are present to indicate if low oxygen levels are present in the laboratory. If the alarm sounds **DO NOT ENTER** and inform a member of staff immediately. If the alarm is switched off inform a member of staff immediately so it can be re-calibrated for future use.
- If you feel unwell when working in the laboratory you should inform the academic staff member in charge of the class or your supervisor immediately. If you feel unwell afterwards and you seek medical advice, be sure to mention that you have been working in a laboratory as this information may be critical for establishing a proper diagnosis.

4.1 Chemical Safety

The Chemicals Safety Act 2008 and 2010 ensures that the use of hazardous chemicals in the workplace is controlled in a safe manner via EU regulations. As a result the School must:

- Assess the health risks which arises from the hazardous substances in the workplace and to identify and provide effective controls to protect peoples health
- Ensure that the controls are properly used and maintained in effective working order
- Provide training and information for those who may be provided
- Monitor exposure and implement health surveillance where necessary

A copy of the most recent regulations can be found at:

<http://www.hsa.ie/eng/Legislation/Acts/Chemicals Acts 2008 and 2010 and the Guide/>

As a result the following rules and regulations apply to the use of chemicals in the School:

- When ordered online all chemicals must be risk assessed and logged via the Research Supervisor and Safety form to ensure correct use and hazard control as shown in *Appendix A*.
- Upon arrival onsite **ALL** chemicals must be logged via the Labcup system via the local contact Technical Officer or Laboratory attendant. Please inform these personnel when a new chemical arrives onsite and allow each one to be registered via the barcoding system. See <https://www.labcup.net/> for access and registration details.
- This system allows access to the relevant safety data sheets for each chemical which should be read for each chemical before use.
- All work involving chemicals should involve the use of personal protective equipment such as safety goggles, lab coat and safety goggles
- If the chemical requires the use/operation within a fumehood please ensure space is made available for your and/or peoples experiments
- Please ensure all chemicals are stored in the correct shelves/fire-safe presses. i.e. acids and bases should never be mixed
- All chemicals transferred to a new/other container must be clearly labelled with the name and any relevant hazard symbols associated with its use.
- When left unattended all chemical experiments must be labelled with an unattended apparatus form stating the chemical details, contact details and procedures should it

need to be switched off. A copy of these is available in each laboratory or in *Appendix B* below.

- Any chemical spills must be contained immediately via the Chemical spill kit which are available on each floor. Please inform a member of staff if such a spill occurs so a replacement spill kit can be ordered and disposed of correctly.
- All chemicals must be disposed of via Chlorinated and Non-Chlorinated containers shown below. They can be disposed of via the Hazardous Materials Facility (HMF) in the East End Building near the Lincoln Place gate. Container must be not more than two-thirds full when sent to the HMF
- Acid waste should be disposed of via separate safety containers.
- All broken glass must be disposed of via 'Sharps' bins which are shown below. This includes contaminated glass, used needles/syringes, scalpels/blades and broken instruments which are sharp.
- Suitable bottle carriers must be used when transporting Winchester and Eurobottle containers in order to prevent accidental spillage or personal injury
- All cytotoxic waste should be disposed of in a Cytotoxic waste bin which have a yellow base and purple lid which are shown below.
- When a chemical container becomes empty/used up please inform a Technician or Laboratory attendant so they can be logged off the Labcup system.
- For any further relevant information on chemical safety required please contact your local technician or see the college guidelines at <https://www.tcd.ie/estatesandfacilities/health-and-safety/Lab-Safety/chemical-safety/>
- For any chemical safety requirements, ordering details, disposal times and costs please contact your local Technician or the HMF facility at: <https://www.tcd.ie/hazardousmaterials/>
- For further chemical data or regulatory E.U. control measures please see the REACH website at: <https://echa.europa.eu/regulations/reach>
- For any local chemical safety concerns or information required please contact the School Chemical Safety Officer Mr. Ray Keaveny at RKEAVENY@tcd.ie



Chlorinated/Non-Chlorinated Solvent waste can



Chemically contaminated waste can



Clinical Waste bin



Cytotoxic Clinical waste bin



Chemical Spill Kit



Hazardous Liquid Disposal (e.g. Acids)



Silica Column Waste can

4.2 Biological Safety

Work involving the use of biological samples must comply with the Safety Health and Welfare at Work (Biological Agents) Regulations 2013

(https://www.tcd.ie/estatesandfacilities/assets/pdf/Code_of_Practice_Biological_Agents_SI_572.pdf and <https://www.tcd.ie/estatesandfacilities/assets/pdf/Guidelines-for-Biological-Agents-2014.pdf>).

The key requirements of the legislation is to assess the risks associated with the projects involving the use of biological agents. Many biological agents can potentially cause harm to human or animal health. This group may include, but is not restricted to, micro-organisms (including those which have been genetically-modified micro-organisms [GMMs]), cell cultures and endoparasites that may be able to provoke infection, allergy or toxicity in humans or animals.

As a result from this all personnel whom are in contact/use of biological samples must attend the yearly Biological Safety Workshop and have their supervisor fill in the Biological Agents Personnel Training Record that must be approved by School Safety Officer (https://pharmacy.tcd.ie/Safety/local/safety-related_forms_list_and_risk_assessments.php)

For further information please see the college guidelines on Biological Safety <https://www.tcd.ie/estatesandfacilities/health-and-safety/Lab-Safety/biological-safety/> or contact the School Biological Safety Officer Asst. Prof. Maria Santos-Martinez at santosmm@tcd.ie Telephone: 896 4281

4.3 Laser Safety

All research supervisors and persons in charge have a responsibility to ensure that all lasers under their control are entered in the College laser register held by the College Laser Safety Officer and that all new or visiting research staff are registered as designated laser workers and receive the appropriate level of laser safety training before access to laser areas is authorised. All appropriate eye protection should be made available to each user and each user must attend the annual Laser Safety training day. For details on the next training date contact the College Laser Safety Officer, Mr.Christopher Smith at chris.shmit@tcd.ie Telephone 896 3649.

4.4 Radiological Safety

All research supervisors and persons in charge have a responsibility to ensure that all new or visiting research students and staff have received appropriate training before access is authorised to access areas containing sources of ionisation radiation. Personnel working in these areas must have completed the College Training Workshop in Radiological Protection which occurs on an annual basis. The source of Radiation in the laboratory will be constantly monitored via dosimeters located beside each source. These will be changed and monitored via Technical Officers every two months. The Rad-3 Permit to work form can be found at <https://www.tcd.ie/estatesandfacilities/health-and-safety/Lab-Safety/radiological-safety/> and must be completed by each user for X-Ray equipment before training/access takes place. Once completed please return the form to Trevor Woods on Level 1. The School Radiological Safety Officer Dr. Andrew Harkin aharkin@tcd.ie Telephone 8962807 can be contacted for any Radiation info or concerns. The X-Ray laboratory must be kept closed at all times and the key access codes only given to those who have filled in the Rad-3 Permit to Work Form and received relevant equipment training.

For further information and/or accidents/incidents on Radiological Safety please contact the college Radiological Safety Officer Ms.Gillian Gunning at ONEILLGI@tcd.ie Telephone 896 3530.

4.5 Compressed Gas Safety

Compress gas cylinders and from rooftop Nitrogen supply is provided at high pressures and may be flammable and/or toxic so great care must be taken in its storage, handling and use. As a result the School has issued the following guidelines in regards to the use of compressed gases:

- Only those who have attended the relevant gas handling courses may change/move compressed gas bottles including the fitting of regulators when a source becomes empty. Please contact Trevor Woods woodst@tcd.ie or Brian Talbot at TALBOTB@tcd.ie if you require a cylinder to be changed
- Please adhere to the warning signs located at the entrance to each laboratory indicating the presence of compressed gases within the laboratory and be mindful of their presence.

- In the event of a compressed gas leak an oxygen monitor alarm will sound indicating the presence of low levels of Oxygen within the laboratory. **PLEASE DO NOT ENTER THE LABORATORY** and inform a member of staff immediately to assess the situation.
- Please ensure all gas sources where practical are switched off before leaving the laboratory. Where they must be left on ensure an unattended apparatus form is attached indicating the contact details and procedures to take should an experiment need to be switched off.
- In the event of the Nitrogen source becoming unavailable via the rooftop supply do not adjust the supply regulator into the laboratory and please contact Trevor Woods woodst@tcd.ie Brian Talbot talbotb@tcd.ie or Ray Keaveny RKEAVENY@tcd.ie to assess its immediate repair and re-supply.

4.6 Cryogenic Liquid Safety

The most common cryogenic hazard found in the laboratories is liquid Nitrogen (boiling point -196°C). Those wishing to use liquid nitrogen must have attended the 'Safe use of Cryogenics' course in College. To book a place please see: <https://www.tcd.ie/estatesandfacilities/health-and-safety/Safety-Training/> The use and handling of cryogenic liquids necessitates the following rules/guidelines:

- Eye protection and thermal gloves when transferring liquids
- A full risk assessment must be used before carrying out any experiment signed via your Principle Investigator
- Ensure adequate ventilation is available in the laboratory of use before carrying out any experiment in-case of inert gas asphyxiation
- In the event of spill or oxygen monitor alarm sounding please evacuate the laboratory immediately and inform a member of staff to assess the situation.
- No-one may travel in lifts with pressurised dewars containing liquid nitrogen

For further detailed information please see the college cryogenic safety guidelines at: <https://www.tcd.ie/estatesandfacilities/health-and-safety/Lab-Safety/cryogen-safety/>

4.7 Dignity and Respect Policy

The School of Pharmacy and Pharmaceutical Sciences is committed to creating an environment where every employee and student is treated with dignity and respect. The College promotes, and is committed to supporting, a collegiate environment for its staff, students and other community members, which is free from discrimination, bullying, sexual harassment excess stress and other forms of harassment. If you feel affected by any of these issues please contact your class representative, research supervisor or line manager directly. For more detailed information, standard procedures and contact details please see <https://www.tcd.ie/about/policies/respect.php>

4.8 General Information/Links

Should you have any queries/updates on this Health and Safety Policy please contact Trevor Woods at woodst@tcd.ie to make any changes/recommendations.

For the School of Pharmacy and Pharmaceutical Sciences safety guidelines/risk assessments please see:

https://pharmacy.tcd.ie/Safety/local/safety-related_forms_list_and_risk_assessments.php

For the College Health and Safety guidelines/advice please see Estates and Facilities:

<https://www.tcd.ie/estatesandfacilities/>

For current up to date Health and Safety Guidelines please see The National Health and Safety Authority:

<http://www.hsa.ie/eng/>

4.9 Important Contacts

Title/Function	Present Holder	Email	Tel #
Emergency			1999
First Aid Personnel	Dr. Carlos Medina Mr. Brian Talbot Mr. Trevor Woods	carlos.medina@tcd.ie talbotb@tcd.ie woodst@tcd.ie	2823 2842 2833
Head of School	Dr. Anne Marie Healy	healyam@tcd.ie	2819
Chemical Safety Officer	Mr. Ray Keaveny	rkeaveny@tcd.ie	2814
Biological Safety Officer	Dr. Maria Santos-Martinez	santosmm@tcd.ie	4281
Radiological Safety Officer	Dr. Andrew Harkin	aharkin@tcd.ie	2807
Chief Technical Officer	Mr. Ray Keaveny	rkeaveny@tcd.ie	2814
Head of Safety & Safety Risk Management	Mr. Tom Merriman	tom.merriman@tcd.ie	1914
College Specialist Hazardous Chemicals	Dr. Michael Bridge	mbridge@tcd.ie	1264
College Biosafety Officer	Mr. Tom Merriman	tom.merriman@tcd.ie	1914
College Specialist Bio-Hazards	Dr Joseph McPartlin	joe.mcpartlin@tcd.ie	3270
Safety Officer / Fire Safety	Mr. Karl Flynn	karl.flynn@tcd.ie	3545

Safety Officer / Radiological Protection	Ms. Gillian Gunning	gillian.gunning@tcd.ie	2887
College Specialist Laser Safety	Mr. Christopher Smith	chris.smith@tcd.ie	3649
Head of Security	Mr. Michael Murray	michael.j.murray@tcd.ie	2648
College Health Centre	Dr. David McGrath	dmcgrat@tcd.ie	1556

Special Hazards:

Indicate any **special** hazards associated with the work e.g. from use of biological material especially any of human origin, from use of Category 1 or Category 2 carcinogens (whose **use must be justified**), from use of material of high toxicity or hazardous instability or from any other physical or chemical source.

If any such hazards are expected, indicate which safety resources within the School of Pharmacy and Pharmaceutical Sciences are to be used to deal with these hazards.

If no such safety resources exist within the School indicate how the expected hazards are to be dealt with.

If no special hazards are anticipated write "none" in the box below.

Date..... **Review Due**

Date.....

Appendix B

Equipment Risks Assessment General Format

SCHOOL OF PHARMACY AND PHARMACEUTICAL SCIENCES RISK ASSESSMENT FORM	
RA-16-035-1	
Location:	Pharmacy - Level 1 - Room 1/19
Equipment/Experiment:	Retsch MP 100 – Ball Mill
Personnel exposed:	Postgrads, Postdocs, Technicians, Academics
Number of people exposed:	5
Materials and Reagents:	Active Pharmaceutical Ingredients Excipients Solvents

Hazards/Risk:	Exposure to solvents	L X M H
	Contact/Inhalation of dust	L M X H
	Equipment Handling/Use	L X M H

Existing control measures before entering laboratory:	<ul style="list-style-type: none"> Correct use of all PPE including gloves, dust mask, goggles and laboratory safety coat when handling all materials. Safety data sheets for all solvents and powders to be read via Labcup and/or printout access. All mechanical parts to be securely fastened before starting rotation of Ball Mill via standing operating procedures and correct training. When leaving equipment unattended overnight must have an unattended apparatus sheet stating the operator, chemicals in use as inexperienced users may not be aware of noise level. All equipment to be correctly cleaned after use to avoid cross contamination.
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Completed by:	Trevor Woods	Signature:	
Issue date:	5 th Oct 2016	Revision Date:	5 th Oct 2018
Supervisor:	Prof. Anne-Marie Healy	Signature:	

PLEASE ADHERE TO ALL OF THE ABOVE GUIDELINES BEFORE USING EQUIPMENT.

A SEPARATE RISK ASSESSMENT MUST BE PREPARED FOR EACH EXPERIMENT CARRIED OUT.

Appendix C

Unattended Apparatus Form

SCHOOL OF PHARMACY AND PHARMAECUTICAL SCIENCES

UNATTENDED APPARATUS FORM

PLEASE LEAVE RUNNING

LOCATION:

DESCRIPTION OF WORK:

SPECIAL HAZARDS:

EMERGENCY SHUTDOWN

PROCEDURES:

NAME:

CONTACT DETAILS:

ADHERE TO THE ABOVE GUIDELINES AND PLEASE CONTACT THE ABOVE PERSONELL BEFORE SWITCHING OFF EXPERIMENT