




(College / School / Department): College of Natural Sciences, School of Biological Sciences



RISK ASSESSMENT TITLE: Use of Bio Medical Science Laboratory


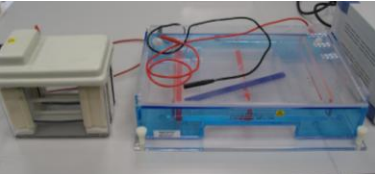
Location / Building / Area:	Brambell Building, C4	Activity (Summary):	General use of Bio Medical Sciences Laboratory by staff and students. This assessment does not cover the use of hazardous substances or equipment not listed below. Additional assessments may be required as indicated on this Risk Assessment Form.
Date of Assessment:	14 th October 2009	Name of Assessor:	John Latchford / Suzanne Barnes / Louise Thurlow

What are the dangers/hazards?	Who might be harmed and how?	What are you already doing to prevent harm?	What further action is necessary?	Action by whom
Slips / Trips and Falls	Staff and students	<ul style="list-style-type: none"> • Floor in good condition • Bags and coats stored in lockers • Power points desk mounted to remove risk of trailing leads • Adequate storage is provided • Academic Supervisor regularly undertakes inspections 	<ul style="list-style-type: none"> • All spillages to be reported immediately and cleared in accordance with <u>Information Sheet CS5 - Emergency Spill Procedure</u> • Regular monitoring is undertaken 	Staff and students
Electrical Hazards	Staff and students	<ul style="list-style-type: none"> • All equipment PAT Tested • User checks carried out – <u>see Information Sheet LS2 - Electrical Safety</u> 	<ul style="list-style-type: none"> • All defects to be reported to Technical Staff immediately 	Staff and students
Personal Contamination	Staff and students	<ul style="list-style-type: none"> • COSHH Assessments are undertaken • Good laboratory practices are implemented • Howie lab coats worn. Lab coats folded inside out for storage • Suitable footwear worn • Hair tied back • Appropriate PPE worn eg gloves as directed • No eating, drinking or application of cosmetics allowed in Lab • Laboratory benches sanitized after use • Hands washed in designated sink regularly and prior to leaving Laboratory 	<ul style="list-style-type: none"> • All suspected contamination to be reported immediately to Supervisor. Do not leave the laboratory until authorised to do so • Lab coats regularly laundered by specialist contractor 	Staff and students

<p>Sharps eg needles, scalpels and broken glass</p> 	<p>Staff and students</p>	<ul style="list-style-type: none"> • Care taken when using scalpels, especially when changing blades • All sharps disposed of in sharps container • All breakages reported immediately 	<ul style="list-style-type: none"> • Sharps containers to be closed when full and disposed of promptly via specialist Waste Contractor • Broken glass to be disposed of in designated bins • All sharps injuries must be reported 	<p>Staff and students</p>
<p>Manual Handling</p>	<p>Staff and students</p>	<ul style="list-style-type: none"> • Team lifting for heavy items • Equipment stored appropriately eg heavy items and glassware stored below shoulder height 	<ul style="list-style-type: none"> • Identify need for manual handling training and risk assessment and provide if required • Appropriate access equipment to be provided 	<p>H&S Officer</p>
<p>Emergency procedures eg fire and first aid</p>	<p>Staff and students</p>	<ul style="list-style-type: none"> • All personnel receive H&S Induction before working in Laboratory • 'Action to Take' signs displayed in laboratory • Appropriate fire fighting equipment eg extinguishers provided • Regular fire drills undertaken • PEEPs undertaken where required 	<ul style="list-style-type: none"> • Check first aid provision • Ensure staff and students aware of 333 number 	<p>H&S Officer</p>
<p>Spills of hazardous substances</p>	<p>Staff and students</p>	<ul style="list-style-type: none"> • All personnel receive H&S Induction before working in Laboratory including emergency spill procedure • Spills cleared promptly • Appropriate equipment provided eg spill kits • Materials used to clean spills placed in specific bins and disposed of by Specialist Waste Contractor 	<ul style="list-style-type: none"> • All spillages to be reported immediately and cleared in accordance with <u>Information Sheet CS5 - Emergency Spill Procedure</u> 	<p>Staff and students</p>
<p>Fire</p>	<p>Staff, students and the Emergency Services</p>	<ul style="list-style-type: none"> • Flammable chemicals and activities kept to a minimum • Local fire fighting equipment provided • Combustible materials kept to a minimum • Good level of fire safety awareness amongst staff • Fire alarm system installed • Fire drills regularly undertaken • Fire and smoke detection within the building • Liaison with Emergency Services regarding building fire risk takes place 	<ul style="list-style-type: none"> • Undertake specific Risk Assessment if a process may introduce a heightened fire risk 	<p>Staff and students</p>

Exposure to hazardous substances – chemical and biological	Staff and students	<ul style="list-style-type: none"> Reference to specific COSHH Assessments as required 	<ul style="list-style-type: none"> Ensure specific COSHH Assessments are undertaken for the use of all hazardous agents Ensure safe storage of all chemicals see <u>Information Sheet CS3 - Chemical Storage</u> 	Academic Supervisors Laboratory Manager
EQUIPMENT SAFETY – refer to ‘Electrical Hazards’ above				
Autoclaves – burns, manual handling, chemical and biological hazards	Staff and students	<ul style="list-style-type: none"> Use restricted to authorized trained personnel Autoclave operated in accordance with <u>Information Sheet LS4 – Safe Use of Autoclaves</u> Reference to specific COSHH Assessments as required Item is regularly inspected for electrical safety 	<ul style="list-style-type: none"> Autoclave to be serviced annually Vessel to be inspected according to Pressure Systems Safety Regulations 2000 Ensure details of autoclave notified to Insurers All defects to be reported immediately to Laboratory Manager 	Chief Technician Insurance Officer H&S Officer Staff and students
Microwave Oven – burns, chemical and biological hazards	Staff and students	<ul style="list-style-type: none"> Microwave operated in accordance with <u>Information Sheet LS3 – Safe Use of Microwaves</u> Reference to specific COSHH Assessments as required 	<ul style="list-style-type: none"> All defects to be reported immediately to Laboratory Manager 	Staff and students
Fumehoods – potential exposure to hazardous vapours, gases and particulates and fire	Staff and students	<ul style="list-style-type: none"> Fumehood operated in accordance with <u>Information Sheet LS6 – Safe Use of Fume Hoods</u> Reference to specific COSHH Assessments as required 	<ul style="list-style-type: none"> Fume hoods to be tested annually All defects to be reported immediately to Laboratory Manager 	Estates Staff and students

<p>Micro and Midi Centrifuges – mechanical injuries, chemical and biological hazards</p> 	<p>Staff and students</p>	<ul style="list-style-type: none"> • Micro Centrifuge operated in accordance with <u>Information Sheet LS5 – Safe Use of Micro Centrifuges</u> • Reference to specific COSHH Assessments as required 	<ul style="list-style-type: none"> • All defects to be reported immediately to Laboratory Manager 	<p>Staff and students</p>
<p>PCR Machine – exposure to hazardous substances and burns</p> 	<p>Staff and students</p>	<ul style="list-style-type: none"> • Reference to specific COSHH Assessments as required • Care taken – not to touch hot parts of machine • Warning notices displayed 	<ul style="list-style-type: none"> • All defects to be reported immediately to Laboratory Manager 	<p>Staff and students</p>
<p>Microscopes – frequent prolonged use can lead to eye strain, headaches and upper limb disorders. Risk of exposure to hazardous substances</p>	<p>Staff and students</p>	<ul style="list-style-type: none"> • Users trained in the correct set up and use of microscopes • Height adjustable chairs supplied • Reference to specific COSHH Assessments as required • Regular breaks taken 	<ul style="list-style-type: none"> • If liquid spilt on microscope isolate power immediately and notify Laboratory Manager • All defects to be reported immediately to Laboratory Manager • Consider use of monitor if microscope is to be used regularly for extensive periods of time 	<p>Staff and students</p>
<p>Heating Blocks and Hot Plates – burns, contact with sharps if containers break, fire if incorrect container used or substances heated inappropriately, exposure to hazardous substances</p>	<p>Staff and students</p>	<ul style="list-style-type: none"> • Warning notices displayed • Care taken to avoid hot parts of machinery • Heat resistant gloves worn as appropriate • Reference to specific COSHH Assessments as required • Appropriate heat and chemical resistant containers used • Materials never left unattended on hot plate 	<ul style="list-style-type: none"> • If a spillage occurs, isolate power immediately and notify Laboratory Manager • All defects to be reported immediately to Laboratory Manager • Ensure equipment is electrically isolated after use 	<p>Staff and students</p>
<p>Balances and Ph Meters – exposure to hazardous substances</p>	<p>Staff and students</p>	<ul style="list-style-type: none"> • Reference to specific COSHH Assessments as required • Balances cleaned after use 	<ul style="list-style-type: none"> • If liquid is spilt on a balance, isolate power immediately and notify Laboratory Manager • All defects to be reported immediately to Laboratory Manager 	<p>Staff and students</p>

<p>UVP Illuminator – burns to skin and eyes from UV light, exposure to ethidium bromide</p> 	<p>Staff and students</p>	<ul style="list-style-type: none"> • Reference made to ethidium bromide COSHH Assessment • UV light source interlocked with operation of the door • Nitrile gloves worn when handling gels containing ethidium bromide 	<ul style="list-style-type: none"> • Interlock to be checked by Laboratory Manager regularly • All defects to be reported to Laboratory Manager 	<p>Laboratory Manager Staff and students</p>
<p>Electrophoresis equipment and power supplies – electric shock and exposure to hazardous chemicals, particularly ethidium bromide when handling agarose gel electrophoresis equipment</p> 	<p>Staff and students</p>	<ul style="list-style-type: none"> • Reference to specific COSHH Assessments as required • Nitrile gloves worn when handling agarose gel electrophoresis equipment • Gel tanks examined for cracks, leaks, exposed wires • Gel tank lids firmly closed before switching on the electrical supply 	<ul style="list-style-type: none"> • If leaks occur during electrophoresis isolate equipment immediately and inform Laboratory Manager 	<p>Staff and students</p>
<p>Spectrophotometers – electrical hazards, exposure to hazardous chemicals, manual handling</p>	<p>Staff and students</p>	<ul style="list-style-type: none"> • Reference to specific COSHH Assessments as required • Care taken when lifting and moving. Team lifting used if required 	<ul style="list-style-type: none"> • Investigate the use of lighter equipment to reduce manual handling issues 	<p>H&S Officer</p>