

The Very Important And Really Quite Useful ...

Biomedical Tissue Research Induction Manual

**Print it off if you like, but remember it's only as good as
the day you printed it as we're updating it all the time!**

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1. About this Guide

Firstly, welcome to BTR!

This is not an exhaustive document but we have included most of the important things you need to know about working in the group. Much of it comprises links to other things that it is useful for you to read early on in your time here. Take the time to go through it and things that other have struggled with in the early days might come a little easier to you!

2. Finding your way around

You'll find your way around soon enough, but to help, there are department layout maps available at:

<http://www.york.ac.uk/depts/biol/dept/staff.yrk/plans.pdf>.

Most important is to know the way to the snack bar, **Cookies**. Walk the length of the Atrium, away from reception, through the sets of double doors into the older section of the building and turn right halfway down the long corridor.

3. Lab Meetings

BTR Lab meetings are held every Wednesday at 12.30pm.

Everyone takes a turn at presenting at lab meetings, either on an interesting relevant paper they have come across or on a conference they have attended. Every month, a lab meeting will be an 'everyone update' where we all share progress on what we are doing.

Invitations for lab meetings are sent via Microsoft Outlook with a reminder set so you won't forget to come!

4. Post

Get your name onto a pigeon hole as soon as you arrive or Bruce (who delivers the post) gets very confused! The same goes for name changes.

5. Telephones and Fax machine

There are two main lab telephones, one in the main seating bay and one on the long bench. In addition, Paul Genever has his own line and there is a fax machine. There is also a phone in the upstairs lab.

The numbers are:

Main seating bay	+44 (0)1904 32 8657
Long bench	+44 (0)1904 32 8658
Paul Genever's telephone	+44 (0)1904 32 8649
Fax machine	+44 (0)1904 32 8659
E1 lab	+44 (0)1904 32 8565

5.1. Internal University Calls

University extension numbers are mostly the last four digits of the external number, although there are exceptions eg. The Innovation Office. There is a full online searchable University directory that you can access from the University's homepage.

5.2. External Calls

Precede all external calls with a (9) to get an outside line.

5.3. Calling International Numbers

Telephones are not set up to dial international numbers directly. If you need to dial internationally, use the access number (9 – for the outside line) 0844 972 9700 to go through *FirstNumber* which allows us international calls at vastly reduced rates. Once you have dialled the access code you just dial the international number as you would normally.

5.4. Using the Fax Machine

Make a note of the number you need to dial on a separate bit of paper. Put your paper in FACE DOWN. Dial the number (preceded by a 9 for an outside line). Press the blue START button. Your paper should be fed through gradually. When the fax is complete, the machine will beep and print a confirmation slip.

NB: The fax is not good at taking multiple pages. If you have more than one page to send, we suggest you do them separately. If you have lots of pages to send, we suggest you find another way eg. e-mail!

DON'T BE ALARMED – the fax machine is really loud!

6. Kettle and Fridge Area

This is for everyone's use. You can join the coffee rota if you want and put in a certain amount each month out of which tea, coffee, milk and sugar are purchased. Otherwise, bring your own or buy it from Cookies! Feel free to put your lunch in the fridge to keep it cool.

7. Your Lab Book

Your lab book is the primary record of what you do. There are important protocols in keeping your lab book properly. Make sure you follow these guidelines on the R:/drive at: LAB_INFORMATION\Lab Maintenance\Important Information\Lab book.doc.

8. Lone Working

There is a procedure to follow if you intend to work in the laboratory on your own. Find this at: LAB_INFORMATION\Lab Maintenance\Important Information\LoneWorking PG1.doc and follow it.

9. Computing

Use the main University Computing web pages: <http://www.york.ac.uk/services/cserv/> and Biology IT web pages: <http://www.york.ac.uk/depts/biol/itsupport/> for general information. You can access your e-mail and your files on the Department's servers from outside the University and all the info is on there.

9.1. Printers

We have two printers, a black and white laser printer and a colour inkjet.

B&W Laserjet

- Make sure you have your paper set to A4 in the document you are printing or you will need to put paper in the manual feeder.
- If it jams, don't be afraid to open it up and look for the jam. There are access points at the front and the back.

- If you see it saying "Load Letter" just hit SHIFT and CONTINUE together and it will take paper from the tray.
- It doesn't print double-sided. If you need to, print one side then re-insert face down, head first into the feeder.
- If the print gets streaky, take out the print cartridge and gently tilt it 180 degrees from side to side about 5 times. Then put it back in fully and re-close. It makes the cartridges last quite a bit longer!

Colour Laserjet

Don't print black and white only on this printer. The cartridges are way more expensive, so save it for colour printing.

It is defaulted to print double sided to save paper. If you need to print single sided, you will need to change the print settings.

9.2. BTR Website

We have our own departmental website which has a useful BTR only section which holds key information about the department:

- Hood Booking calendars
- Standard Operating Procedures
- COSHH forms
- Chemical/Antibody/Primers/References databases
- Blank forms and templates

Find it at: <http://www.york.ac.uk/res/btr/BTR%20ONLY/BTR%20ONLY.html>

9.3. The R:/ drive

Everyone has their own folder on the BTR R:/ drive and there is general information to be found in the LAB INFORMATION section (some of which is kept on the website so may appear as links). Always go to the website for general information first.

The R:/ drive has limited space, so don't store masses of large images on there. Copy them onto CDs or keep them on a memory stick.

Store as little information as you can on the C:\ drive of your PC as there is less risk. The R:/drive is backed up each night so if you lose something you stand a chance of getting it back.

9.4. The X:/ drive

All PhD students should have an X:/drive. These are paid for and come out of the TF (Technology Facility) credit allocated to your grant. It saves cluttering up the R:/drive and keeps your data safe.

9.5. Department Calendars

These are found in the LAB INFORMATION section. Enter holidays you have booked, birthdays, parties etc.

9.6. Laptops

Our laptops are not backed up in the same way the desktop PCs are and because you can work offline you may tend to store more information on your C:/ drive. **You are responsible for backing up your own laptop** with a piece of software that needs to be purchased separately. Please see Paul Genever to get this sorted out.

Keep your laptop safe with a desk lock.

10. Finance

The Biology Finance website (<http://www.york.ac.uk/depts/biol/finance>) is a great resource of information. However a couple of things are useful to know early on so these links point you in their direction.

10.1. Project Workorders

All Projects have their own Workorder to which expenditure on that project is charged. It is important that you understand how the codes are constructed, so see the Biology Finance website at:

<http://www.york.ac.uk/depts/biol/finance/coding.htm>

10.2. Claiming Expenses

You can claim pre-agreed expenses by using the approved claim form. Follow the instructions on the Biology Finance website at: <http://www.york.ac.uk/depts/biol/finance/expense.htm>. Make sure you use the correct account and product codes, lists of which can be found on the Biology Finance website.

11. People and Projects

Current lab members are:

Paul Genever	Lecturer	Group Head
Aixin (Alex) Cheng	Postdoctoral Research Assistant	Mesenchymal stem cells (MSCs)
Jen Dyson	Postdoctoral Research Assistant	Generation of 3D gene knockout models using adult human stem cells
Satya Varanasi	Postdoctoral Research Assistant	Mesenchymal stem cells (MSCs)
Seun Adewumi	PhD Student	Cryopreservation of human stem cells: design of an optimal preservation protocol
Turkan Arca	PhD Student	Determining growth and differentiation properties of mesenchymal stem cells on novel biomatrices
Elen Bray	PhD Student	Predicting the potency of human mesenchymal stem cells
Buzz Palmer	PhD Student	Tissue engineering osteochondral composites using mesenchymal stem cells
Fatima Saleh	PhD Student	Mesenchymal differentiation in MSC-spheroids compared to 2D monolayer cultures
Caryn Swartz	European Project Administrator	For the Osteocord project (www.osteocord.org)

12. Health & Safety

Most things you will need to know you can find on the Biology Safety Pages. Find them at:

<http://www.york.ac.uk/depts/biol/web/safety/safety.htm>.

Please particularly read the information for new starters at:

http://www.york.ac.uk/depts/biol/web/safety/saf_newcom.htm

However there are some BTR specific things.

12.1. First Aid

The trained department First Aider is Buzz Palmer.

There is a First Aid box on the wall outside the radioactivity room in the main lab. If Buzz is not available, there is a list of First Aiders next to this box.

All accidents, however minor, should be reported. Health & Safety Report Forms are in the First Aid Box and should be signed by the Supervisor or Line Manager and sent to the Infrastructure & Facilities office (F010).

12.2. Fire

The fire alarms are tested every Thursday afternoon at around 2pm. If it goes off at this time, it *probably* is not for real.

Don't take personal risks if you discover a fire. For more information see the Biology Safety pages at:

http://www.york.ac.uk/depts/biol/web/safety/saf_fire.htm.

If there is a genuine fire alarm, the procedure is as follows:

- If you hear a continuous alarm, leave the building by the nearest exit which involves going through the *least* doors. In our case, turn left out of the main seating area and out the door at the end of the building, NOT through the atrium.
- If you hear an intermittent alarm, stay put and get ready to leave.
- Never go from an area with no alarm or an intermittent alarm to an area with a continuous alarm.
- Find the rest of BTR and remain in the Car Park
- Don't go back into the building until you are told it is safe.

12.3. Good Laboratory Practice

Check out the Biology Safety Pages for the Full Code of Good Laboratory Practice at:

http://www.york.ac.uk/depts/biol/web/safety/saf_glp.htm. In the meantime, follow the following rules working in BTR:

BTR Good Laboratory Practice

Dress properly and appropriately in the lab:

- When working with chemicals, laboratory coats should be worn and fastened at all times.
- They should be changed and laundered regularly.
- Those working alongside those using chemicals should also wear lab-coats, hence it is expected that all people working in biochemical, microbiological and cell biological type labs will be wearing lab coats.
- Wear Safety Glasses when working with liquids or other material which could get into your eyes.
- Footwear that properly protects the foot from chemical splashes should be worn at all times in the laboratory.

Avoid ingestion of hazardous substances by mouth by ensuring that you:-

- Do not pipette by mouth
- Do not eat, drink or smoke

- Do not lick labels, chew pencils, chew your nails, etc
- Do not store food or drink for human consumption in the laboratory or in refrigerators used for laboratory purposes.
- Ensure benches and floors are tidy and free of unnecessary equipment

Remove your laboratory coat and any other protective equipment, and wash your hands before leaving the laboratory.

12.4. COSHH Data Sheets

All major procedures that we need to carry out in BTR have their own COSHH Data Sheet which can be accessed via the BTR Only website. This includes information regarding the hazards associated with the chemicals and equipment you will be using. Please consult these before you conduct any experiments as some procedures may require you to be recorded as receive training before you can do them.

Satya is the group's Safety representative.

12.5. Radioactivity

Satya is also the department's Radioactivity representative. You will need to be registered to use Radiation. Talk to him if you need to use radioactive markers in your work and see the R:/drive at: [LAB INFORMATION\Radioactivity](#). Ensure you follow appropriate disposal routines (see 14.11 Waste).

12.6. Genetically Modified Organisms

Please see the University's guidance notes on the use of GMOs at: <http://www.york.ac.uk/depts/biol/web/safety/gmgn.doc>.

You need to be appropriately trained before you are permitted to work with GMOs. If you have completed the equivalent elsewhere before joining the BTR Group you may be exempted.

12.7. UV light

Various procedures in BTR require the use of UV light. Pieces of apparatus which generate UV light that could cause exposure of skin or eyes will be labelled. Use proper eye protection and wear gloves.

12.8. Human tissues

We regularly work with Human tissues. Please read the information on the Biology Safety Pages about working with human blood, blood products and tissues at: <http://www.york.ac.uk/depts/biol/web/safety/Blood%20Guidance.doc>.

Everyone handling unscreened blood, blood products and other tissues should have an up to date Hepatitis B immunisation (contact the University Occupational Health Advisor on Ext. 2020).

13. Laboratory Consumables

13.1. Benny Hill

Every Monday morning at 0930, **everyone** helps out in the lab, cleaning, emptying waste, taking bags down to autoclaving, restocking drawers and pipette tip boxes and so on. The first few times you do it, latch onto someone different each time and you'll get a picture of everything we need to do.

13.2. Ordering supplies

Everyone takes a turn at ordering the general lab supplies for a week at a time. Anything you notice we have run out of, please add to the lists on the refrigerator in the downstairs store area or the upstairs lab and it will be ordered. If it is your turn to order, remember to check **both** lists. It's up to you to go and get it though if you need it urgently!

In the normal run of things, everyone takes turns at collecting from Stores too. There will probably be a trolley-full (sometimes even two). Bring it all back, label all boxes clearly with "BTR", and a note of the contents if it is not clear from the label, and put into our foyer storage area. Get someone to help you the first time you do this to make sure you're putting things in the right place.

A stores list of the specific items we order in BTR is on the BTR Only website.

If it is your turn on stores when ordering from the list check stock levels for essential things like gloves, blue roll, IMS, flasks, pipettes as running out of these causes everyone problems and sometimes people forget to write them on the list. ***It is very important that stocks are not depleted before new items are ordered.***

You will be responsible for your own external orders (such as specific antibodies, kits etc). Again, make sure you give yourself plenty of time for the new supplies to be delivered before running out of existing stocks.

Agresso

To take your turn you'll need to be registered to use Agresso. Go to the Biology Finance pages using the following link to find out what you need to do to get registered:

<http://www.york.ac.uk/depts/biol/finance/agresso.htm>

There are training courses to learn how to use Agresso, but someone in the department should be able to show you the basics to get you started. There is also a requisitioning manual you can browse through at: <http://www.york.ac.uk/depts/biol/dept/stores/stores.yrk/PO3.doc>.

Tax Codes

Take care when applying the tax codes as putting the wrong tax code can mean our order will be delayed and causes stores and purchasing unnecessary work. To understand the tax codes, read about them on the Biology Finance website at: <http://www.york.ac.uk/depts/biol/dept/stores/VAT.htm>.

Purchasing Cards

Research grants have their two purchasing cards, one for items that attract VAT and another for those that do not. You can use these for supplies you need immediately. Gary and Satya both have cards.

13.3. Hazard Codes

Make sure you know the hazard code for anything you order. This means Stores know how to handle it appropriately.

The hazard code is based on the R codes of the chemical, found in the MSDS (Materials Safety Data Sheet) which you can find online with the supplier for most chemicals.

There is a chart that details the hazard codes which is on the side of the filing cabinet in the main seating area.

More information about COSHH can be found online at:

http://www.york.ac.uk/depts/biol/web/safety/saf_cosh.htm

And in the “Working Safely with Chemicals” data sheet at:
<http://www.york.ac.uk/depts/biol/web/safety/ChemSafetyPoster.pdf>

13.4. Pipette clinic

Starlab and Caltech hold pipette clinics approximately every 3 months, organised by Stores, in the laboratory next to the autoclaving room.

Pipettes taken for servicing need to be decontaminated using Virkon or IMS and dried. You must have a completed decontamination certificate which can be found on the BTR Only website.

13.5. Storage

Shelves

The shelves in the prep room have general chemicals stored at room temperature. A list of reagents is available on the BTR Only website.

This database also holds information on reagents stored at -20 in desiccation boxes.

There is also a database of anti-bodies etc we have in the histology fridge freezer (soon to be organised into numbered boxes so easier to find things).

When using communal reagents and kits, please make sure you **follow the correct storage instructions** as some of these are very expensive to replace and experiments may not work properly. Please also make sure that when you order new reagents and chemicals, that they are added to the database to keep it up to date.

Fridges and Freezers

Some fridges and freezers are used for specific items, i.e. media or antibodies. There are designated shelves for students to store either their cell culture media or reagents.

Please make sure you close fridge and freezer doors properly **and check** because it is vital they operate well and keep samples and reagents at the correct temperature.

13.6. Stationery

Order what you need via Agresso. Most things are available from Biology Stores. We only have a small drawer for stationery supplies so only order the minimum quantity you need. Stores are happy to supply in small quantities.

The key for the drawer is kept stuck on a pad of blue-tack on the back of the trophy on the filing cabinet! Replace it there when you're done.

14. Waste

Check out the Biology Stores for full waste disposal information at:
<http://www.york.ac.uk/depts/biol/dept/stores/waste.htm> but some BTR specific are:

14.1. Regular safe waste

Consider that as anything you'd happily dispose of at home. There are bins next to the fridge and the filing cabinet in the main seating area. The cleaners empty these a couple of times a week.

14.2. Water soluble waste

Flush water soluble waste down the sink with copious amounts of cold water.

14.3. Organic waste

Keep this to a minimum (if possible, try to substitute water miscible solvents) and stored properly in appropriate bottles for disposal via stores on Mondays only.

14.4. Solid waste

This should be bagged and taken to the bins in the Stores yard. **DO NOT** leave it in the safe bins for the cleaners.

14.5. Electrical waste

It is illegal to place electrical items in the general waste bins/skip. This includes small items such as calculators and timers.

- All small/medium electrical items should be disposed of through the Electronic Workshops. For larger pieces of equipment please contact the Infrastructure Team at: <http://www.york.ac.uk/depts/biol/dept/infra/>
- Small electronic items such as calculators, mobile phones and timers should be returned to Stores for disposal.
- Please ensure all equipment is decontaminated before disposal. Items should have a decontamination label placed on the equipment (available from Stores/Infrastructure Team/Electronic Workshops).

14.6. Sharps

Needles, glass Pasteur pipettes, scalpel blades etc must be placed in CINBINS. When these are full, close the lid and write a grant number on the top (which will be charged with disposal costs), and take down to Stores. **Never** put such objects in other waste containers as serious injuries to cleaning staff can occur.

14.7. Glassware

Any glassware that gets broken (beakers, cylinders etc) can be put into the waste glass box (red bins) in the main lab. If the glassware is contaminated, decontaminate and dispose as above. If small, put in CINBINS.

14.8. Bottles

Wash out bottles well and throw the lids away in a black bin. Take the bottles to the green top bins.

14.9. Cell cultures for disposal

Flasks and plates **must not** be opened and Virkoned **upstairs**

All cultures for disposal, infected or not, must be brought **downstairs** to the prep room before being opened and Virkoned

14.10. Autoclave waste

Autoclave runs are daily at 0915, 1115 and 1315. Anything taken at 1315 is usually not available until the following morning.

Waste to be autoclaved includes plastic-ware used for tissue culture, any contaminated gloves or cloth/tissues. Pipette tips are also sent for autoclaving so they are sterile for use in tissue culture etc.

NB: **DO NOT** place phenol waste or liquid filled containers in autoclave bags

When the small autoclave bag at the Class II Cabinet or lab bench is full, the bag must be placed (un-taped) into a large autoclaving bag then placed in the yellow boxes in the foyer area. When a large bag is full (with two small bags for example) the top must be taped **loosely** (finger width gap) with autoclave tape and “BTR PG” should be written on the tape and the bag taken to the autoclaving room.

Water to be autoclaved should not be prepared more than 4hrs before it is due to be sterilised, this is necessary to reduce the bio-burden.

14.11. Radioactive waste

³²P/³³P waste

Solid	<ul style="list-style-type: none"> - For small amounts of waste including pipette tips, dispose into the β-safe container in the fume hood. When full decant into larger β-safe bins on the floor beneath the fume hood. - When these are full call Alan Mould to remove waste or take a marker-pen, and key, and take the bag to the ³²P waste bins (outside E corridor). - Look at the form to note the next bag number. - Write this number on the bag. - On the form write the bag number, the bin number you put the waste into and your name.
Liquid	Liquid waste should be disposed of down the designated sink in B/L0/040 with copious amounts of water. Write the amounts of radioactivity you are disposing of in (KBq) on the form next to this sink.

⁴⁵Ca/³H waste

Solid	<p>This is to be kept separately from ³²P/³³P solid waste. It is the responsibility of the individual user to dispose of this.</p> <ul style="list-style-type: none"> - When the bag is full, double bag it and seal. - Check for radioactivity. - If non-detected (or <400KBq/bag and <40KBq per item for ³H) place into the large bins next to Goods Inwards. If detectable (or >400KBq/bag or >40KBq per item for ³H) put in 32P waste bins. - Do not label the waste bag if going to bins by Goods Inwards. - Scintillation vials go into the designated bin in B/L0/040 and the radioactivity recorded on the yellow sheet.
Liquid	Liquid waste should be disposed of down the designated sink in B/L0/040 with copious amounts of water. Write the amounts of radioactivity you are disposing of in (KBq) on the form next to this sink.

14.12. Recycling

Check out the Biology Stores website for detailed recycling information at:

<http://www.york.ac.uk/depts/biol/dept/stores/recycling.htm> but some BTR specifics are:

Paper

A paper recycling bin is to the left of the entrance to the laboratory. No envelopes or staples please.

Metal and plastic

Metal and plastic bins are available at the bottom of the stairs in the atrium.

Cardboard

Boxes for disposal should be flattened and placed in the foyer area next to the yellow bins. The cleaners will collect this and take it for recycling.

CDs/DVDs/Printer Cartridges

Stores have recycling boxes for these items.

15. E1 Lab

This is the main tissue culture lab. You **must not** use this lab until you have completed an induction with Jen Dyson!

15.1. Lab coats

Lab coats and gloves **must** be worn at all times in the lab. They are stored folded up on the shelves in the entrance area. **This applies to visitors too.**

15.2. Tissue culture hoods

The hoods are colour coded: red, green, yellow and blue

Red	Dedicated ES cells only
Green	Lentiviral work should always be carried out in this hood
Blue	<ul style="list-style-type: none">– Hips must always be done in here– Undergraduates must always use this hood
Yellow	For general use

Hood Booking

Booking is done online using the calendars accessed via the BTR Only website. A guide of how to use the calendar is on the website.

You are expected to book and keep to the time you book to use the hoods. If you nip in a hood when you haven't booked on the online system in advance you **must** add your name to the calendar. There is a laptop in the lab so you can do this from upstairs.

Operating instructions:

Red and green hoods	<ul style="list-style-type: none">• Raise sash to correct height and turn fan on• The fan warms up for 3 minutes then the light will automatically come on• After you have finished using the hood turn off fan and close sash (light turns off automatically)• Put UV light on if you are the last person (will be set to 60 minutes)
Yellow hood	<ul style="list-style-type: none">• As before• Put UV light on if you are the last person•
Blue hood	<ul style="list-style-type: none">• Remove door• Turn fan and light on (can mute alarm)• Wait for air flow level to go into the green• After you have finished using the hood turn off fan and the light

- Replace the door
- Put UV light on if you are the last person
-

Hood GLP (Good Laboratory Practice)

Before starting work:

- Wipe base plate of hood with 2% Virkon then 70% IMS
- Clean aspirator tube with 2% Virkon then 70% IMS

After your have finished work:

- Wipe base plate of hood **and** underneath the base plate with 2% Virkon then 70% IMS
- Empty aspirator if approaching full level, if not clean aspirator tube with 2% Virkon then 70% IMS (if doesn't work will have to empty after every time you use hood)
- Empty bin if full
- Fill up glass pasteur canister if emptied
- Replenish tips and any other supplies that are running low
- Switch everything off if you are the last person

Each hood has its own colour coordinated set of pipettes, pipetboy, autoclave bag holder and 2 glass pasteur canisters. This is for traceability and to reduce transfer of contamination. Therefore these items must not be swapped between hoods. While one canister of glass pasteurs is being used the other one can be autoclaved but this means that as soon as one canister is empty it must be filled, autoclaved and picked up promptly in order that we don't run out.

If hood has not been cleaned up properly when you come to use it chase up the person who used it before you!

Cleaning

See SOP 16

Fumigation

Once a year (March/April before servicing).

Aspirators

PLEASE look after them!

If you finish using a hood and the aspirator is full, please empty and follow this routine to get it ready for the next person:

- Remove all tubing and cork seal from the flask
- Put 2 scoops of neat Virkon powder with approximately 100ml of liquid Virkon to give a solution.
- Attach tubing and cork seal to the clean Virkon filled flask.
- Switch on pump to ensure vacuum has been achieved and aspirator is working correctly.
- Dispose of the waste liquid down the sink next to the water purifier.
- If the aspirator does not work at any time it is usually because the filter down the tubing has become wet. Remove the filter and replace with another. As these filters are expensive, if possible, put them into the drying oven to be re-used.

15.3. Aliquoting

Everyone must contribute! **All** PhD students, Post Docs and Technicians that are doing tissue culture are responsible for contributing to the aliquoting of media components such as FBS pen/strep. Aliquoting should be done with great care as any contamination at this stage could affect everyone's work.

15.4. Mycoplasma testing

- Mycoplasma test results **must** be recorded on the spreadsheet on the R drive.
- All cells must be mycoplasma tested and verified by someone **immediately** before relocation from L0 lab to E1 lab.
- All cells must be mycoplasma tested at each passage, before setting up an experiment and before freezing down.
- Resurrect cells from old primary and cell line dewars downstairs and mycoplasma test **before** bringing upstairs.

15.5. Hips

MSCs must be extracted in the Blue hood only, then mycoplasma tested before they can be cultured in any other hood

15.6. Centrifuge

- Bucket number should always be 6441
- Make sure adaptors are in the correct position
- Setting the time 0.01 is 1 minute
- If not using the temperature function leave at 20°C

15.7. Waterbaths

All new media bottles and aliquots placed in the waterbath must be labelled with your name or else they will be removed (If you see any unlabelled aliquots remove them to discourage the habit!)

Contain sigma clean, clean and replace sigma clean every two weeks.

15.8. Fridges and freezers

Everything in the fridges and freezers must be labelled with a name and a date or else it will be removed.

15.9. Liquid nitrogen

The dewar is for primary cells **and** cell lines but they **must** be mycoplasma free.

15.10. Instruction manuals

In drawer

Please return them!

15.11. Storage area

Because there are so many drawers and cupboards in main lab shouldn't need too much storage in entrance area

There will be a stores list upstairs as well as the one downstairs so the person on stores is responsible for checking the upstairs list as well as the one downstairs

15.12. Incubator cleaning

See SOP 15

15.13. End of the day

If you are the last person booked into a particular hood, shut it down and put UV light on when you have finished working (even if it is not the end of the day).

If you are the last person to use the whole room:

- Make sure all hoods are shutdown
- Turn off waterbaths and put lids on
- Turn off centrifuge
- Turn off lights

15.14. Communal responsibilities

Liquid nitrogen	Alex and Elen
Incubator CO ₂ and temperature levels	Satya
Fridge and freezer temperature levels	Seun
CO ₂ cylinder changing	Jen, Fatima and Satya
Incubator copper sulphate	Everyone

Good aseptic technique is essential, it will help reduce contamination risks to your own and others' work. All cells should be tested routinely (ie. every passage) for mycoplasma by using the Dapi stain method. The SOP for this is on the BTR Only website.

When consumables begin to run low replenish supplies by taking stock from our shelves in the foyer area. If supplies in the store area run low write the item on the stores list.

15.15. Lenti-viruses

This lab has been specially approved for the culture of Lenti-viruses. Please refer to specific guidelines to working with Lenti-viruses at: [LAB INFORMATION\GM risk assessment\Blank Forms and Safety Information\Safety information Lenti.doc](#) and at <http://www.hse.gov.uk/biosafety/gmo/index.htm>.

16. Downstairs Lab

Everyone has their own bench in the downstairs lab. This is entirely your responsibility so it is up to you to keep it tidy!

You are expected to book if you wish to use a PCR machine. There is a booking sheet on the wall next to the machines.

17. The Microscope Rooms

You should be trained by Paul Genever before you use the microscopes. You can, but you do not have to, book to use the microscopes.

Check user guidelines and read the notices around the room before you begin and fill in the user logs. There are two logs:

- User log which you must sign
- Bulb log on which you record the time you have used the bulbs for (they have a finite life and we need to know when they need changing)

Check the plugs behind power box before switching on to ensure correct microscope bulb is being powered.

Take care, switching on and off can reduce the life of the bulbs.