Wright lab Home

Change this page by clicking the Edit button or refer to the Wiki Support pages for help

For fire or first aid dial "3333"

Security: dial "4444"

The Wright Lab Facebook group can be found on the following link - please sign up! https://www.facebook.com/groups/357803710988905

Network path for Team 30 drive is R:\rsrch\gjw515\lab\T30_Sanger

To map the R drive to a Sanger issued laptop. Sign into EduRoam with your York username and password. Open filed explorer and click map network drive and map the following path. Check the box regarding using an alterate credentials.

\\storage.york.ac.uk\biology

Check the box regarding using an alternate credentials.

Log in using "ITSYORK\(Your user name)

Cell Bank: https://docs.google.com/spreadsheets/d/1Igchpea8v5S2M1nYv5ErEHiPOABPPS0-univA7_LPqM/edit#gid=1622568477

HO numbers: https://docs.google.com/spreadsheets/d/1kGjXN7PcBrYTNk72L3D_6ZaLeHU60WFlkZoIq_mLB4g/edit#gid=521310156

Contents

        - Gel-Doc
        - Chemicals Room
        - Gel Room
        - Constant Temperature (CT) Rooms
        - Laminar Flow Hood
        - Class II Microbial Safety Cabinet
    - Waste Disposal
        - Lab consumables
        - Bacterial
        - Chemical
        - Glass
        - Plastic
        - Paper and Cardboard
        - Glassware
        - Autoclaving: Microbial Waste Disposal and Media Sterilisation
    - Waste Disposal and Lab cleaning duties
    - Sterilisation of clean media, plasticware and glass items
        - Lone Working in the Research Labs
        - Undergraduate Project Student Supervision

Useful contacts and Links

Lone worker policy: https://www.york.ac.uk/biology/intranet/health-safety/lone-working/#tab-4

Good lab practice: https://www.york.ac.uk/biology/intranet/health-safety/code-lab-standards/

Parcels awaiting collection https://www.york.ac.uk/biology/itsupport/cfm/stores/index.cfm

Stores order form https://docs.google.com/forms/d/e/1FAIpQLSewp7Wam6ZZ-I4miwCh4czVVUN3we4VSwF_FSGlRXsHnrgEsw/viewform

Stores catalogue https://docs.google.com/spreadsheets/d/1TRsZD0g_d823hR22DFz0vv2NFSoOzDMeDISq6pQlMBw/edit#gid=0

Security	01904323333 or 3333 from campus phone	
Dr Christoph Baumann	Christoph.baumann@york.ac.uk	L1 Safety
Dr James Fox		Facilities?
Dr Marie-Christine Labarthe-Last	marie-christine.labarthe-last@york.ac.uk	CL2/CL3 lab manager
Lucy Hudson		Facilities?

Lab responsibilities

Last updated: 17/09/2021

Adam	Underbench -80 freezer, Enzymes (PCR, RE), pH meter, molecular biology, gel tanks, CL3 protocols and handbook regular revision reminders, passport updates
Cecile	Electronic and physical repository (databases, plasmids), tissue culture room fridge
Enrica	Home Office regulated procedures database, microscopes
Delphine	Freezers, Lab meeting rota
Jarrod	BIAcore, BIAcore fridge
Cristina	
Orphaned jobs	Ordering, health and safety local co-ordinator, monthly safety check, cell lines, thawing fresh 293 cells, protein press, flask cleaning rota, plate reader, keep incubator water reservoirs full AKTA Xpress, Pures, recharging Ni2+ columns

Cleaning rota for L1 communal lab areas

Last updated: 03 Mar 2022

Date Fridays for 2022	**Chemical and Sonicator room**	**Cold room**	**30 degree room**	**37 degree room**	**Gel doc and centrifuge area**
28th January				**Team 30**	
25th February					**Team 30**
25th March	**Team 30**				
29th April		**Team 30**			
27th May			**Team 30**		
24th June				**Team 30**	
29th July					**Team 30**
26th August	**Team 30**				
30th September		**Team 30**			

28th October			**Team 30**		
25th November				**Team 30**	
16th December					**Team 30**

Cleaning of these areas will normally be come between 14:00 and 16:00 to avoid disrupting work in these areas.

LAB MEETING ROTA

Last updated: 17/09/2021

Date	Time	Presenting	Room	Content
25.02.22	11:00	No lab meeting		
04.03.22	11:00	Cecile	B/K/157A	Journal Club
11.03.22	11:00	Enrica	B/K/157A	Journal Club
18.03.22	11:00	No lab meeting Parasites @ York meeting		
25.03.22	11:00	No lab meeting - BSP meeting		
01.04.22	11:00	Craig	B/K/157A	Lab meeting
08.04.22	11:00	Jarrod	B/K/157A	Lab meeting
15.04.22	11:00	No lab meeting - Good Friday		
22.04.22	11:00	No lab meeting Parasites @ York meeting		
29.04.22	3:30	Adam	B/M/023	Lab meeting
06.05.22	11:00	Delphine	B/K/157A	Lab meeting
13.05.22	11:00	Cecile	B/K/157A	Lab meeting
20.05.22	11:00	No lab meeting Parasites @ York meeting		
27.05.22	11:00	Enrica	B/K/157A	Lab meeting
03.06.22	11:00	No lab meeting		
10.06.22	11:00	Cristina	B/K/157A	Lab meeting
17.06.22	11:00	No lab meeting Parasites @ York meeting		

24.06.22	11:00	T.B.D.	Williamson Rooms	Lab meeting
01.07.22	11:00	Adam	B/K/157A	Lab meeting
08.07.22	11:00	Delphine	B/K/157A	Lab meeting

Travelling - fill out travel log for insurance: https://www.york.ac.uk/staff/working/insurance/

HEALTH AND SAFETY

Last updated: 18/10/2021

Risk assesments and SOP's and general safety

York H&S web site: https://www.york.ac.uk/biology/intranet/health-safety/

York H&S forms / training / near miss reporting: https://www.york.ac.uk/admin/hsas/index.html

Hard copies of Risk Assessments and training records are kept in the lab.

DEPARTMENTAL HEALTH & SAFETY ADVISOR (Dr David Nelson / F0 / Ext 8524)
UNIVERSITY HEALTH & SAFETY SERVICES (Ext 2020)
EMERGENCY / SECURITY SERVICES (Ext. 3333)

Safety monitor for L1 is Christoph Baumann: https://www.york.ac.uk/media/biology/documents/infrastructure/hs/SafetyMonitorsList.pdf

Fire sweeper for L1

First aid room is in biology atrium near mail room.

Lone working policy: https://www.york.ac.uk/biology/intranet/health-safety/lone-working/#tab-4

Good lab practice: https://www.york.ac.uk/biology/intranet/health-safety/code-lab-standards/

Waste disposal: https://www.york.ac.uk/biology/intranet/health-safety/waste/summary-lab-waste-practices/

Chemical spills: https://www.york.ac.uk/biology/intranet/health-safety/chemical-safety-2/chemicalspillages/

Lab PPE – Lab coat and gloves should be worn when undertaking any procedure in the lab. Safety glasses can be found in the last bay in the top drawer under the plate shaker and should be worn when handling strong acids and bases, fuming and corrosive substances. A full face shield must be used when handling liquid nitrogen and when taking out heated liquid from the microwave oven. The fume hood is located in the chemical room.

Accidents, incidents and near misses

The chemical spill kit and mercury spill kit are located under the main lab sink. There is a further chemical spill kit and safety signs located near the stores window. Before clearing hazardous spills, check the MSDS for any special measures. In the event of a mercury spill, evacuate the area for 30 minutes, don protective clothing and respiratory mask before clearing spill. The mop and bucket are located in the cell culture room.

First aid kits are located in both the office and lab corridors of L1 in the middle of the building. If you need to

Accidents/incidents and near misses can be reported https://www.york.ac.uk/admin/hsas/ Accident /Incident and near miss reporting: "It is important that the Campus Health and Safety Service are made aware of any incident on the Campus that has lead to someone being injured or made ill, or to property or equipment being damaged. We also need to know about those incidents that could have led to someone being injured or made ill, or to property or equipment being damaged - a 'near miss'.

OligoFinder link: http://intweb.sanger.ac.uk/cgi-bin/teams/team30/oligo_finder2.pl

Plasmid Atlas link: https://www.dna20.com/eCommerce/tools/plasmid-mapper

Plasmid database link: http://web-wwwtomcatlive-03.internal.sanger.ac.uk:8001/login

For booking your flasks of HEK293-6E cells, please use the following link to fill out the booking form. - https://forms.gle/MJFoMqixUgkp6FUt9

To connect to your TECAN folder:

Important! You will first need to install IT Services' VPN connector called **Pulse Secure**. Instructions on how to do this are at http://www.york.ac.uk/it-services/connect/vpn/

- Windows 10
  - Open File Explorer (press the "Windows" key and E, or type File Explorer in the search box)
  - Click "This PC"
  - Click "Computer" tab at top and then "Map network drive"
  - Select drive letter R
  - **In folder box enter: \\userfs.york.ac.uk\username**
  - Do NOT tick the 'Reconnect at Login' box, but DO tick the 'Connect using different credentials' box and then click Finish
  - In the "Enter Network Credentials" box, click "More choices", then "Use a different account"
  - Enter user name in the form **ITSYORK\username**and then your Uni password. If you are using your own login account on your own PC or laptop, then tick the "Remember my credentials" box. Do NOT tick this box if it is possible for someone else to login to your account on your PC or laptop.
  - Click OK.

TECHNOLOGY FACILITY

To register here is how:

1. Go to this link and log-in with your standard university account https://uk.ideaelan.com/secure/public/applogin.aspx

2. Press the button to "register" and then follow the prompts for registering. Note that when answering the prompt of what PI/lab you are under, you should search "gjw515" as Gavin's name may not appear.

3. Once you're done registering, use the same link to make bookings for equipment throughout the Technology Facility (https://uk.ideaelan.com/secure/public/applogin.aspx). Under the "Instruments" tab you can tick the boxes next to pieces of equipment you want to view/book, then on the calendar click and drag to reserve a time on that piece of equipment. To finalize your booking you'll need to select a Work Order out of the drop-down list we set up of the lab's standard grants.

4. It's recommended that for your first booking you should email the facility head (for example, Peter O'Toole for cytometry) to schedule a training session. These are mostly for your own benefit, as unlike Sanger there's no further approval forms you need to do post-training.

COMPETENCY TABLES

Last updated: 18/12/2019

The electronic version can be found in the Team 30 shared drive in the Health and Safety folder. Paper copies can be found in the lab training folder.

Technique	**Perform**	**Train**
AKTA express handling	Cecile, Delphine, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole
AKTA Pure handling	Cecile, Delphine, Francis, Nicole	Francis, Nicole
Avexis screen	Cecile, Enrica, Francis, Sumana	Cecile, Enrica, Francis, Sumana
BIAcore handling	Cecile, Enrica, Francis, Nicole	Francis
Bioluminescence assay (plate reader)	Francis, Delphine	Francis
Blood smears	Francis, Delphine	Delphine
Cellomics	Sumana	
cancer cell culture	Francis, Nicole, Sumana	Sumana
cancer cell screening	Francis, Sumana	Sumana
Chemical deglycosylation of proteins	Francis	Francis

Culling mice schedule 1	Adam, Cecile, Enrica, Francis	-
DNA gel electrophoresis (agarose /EtBr)	Adam, Cecile, Delphine, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana
DNA/plasmid prep	Adam, Cecile, Delphine, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana
ELISA (BIO-proteins)	Cecile, Delphine, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana
Erythrocyte binding assay	Sumana	Sumana
EZ-linked biotinylation	Cecile, Francis	Cecile
Flow cytometry	Adam, Enrica, Francis, Nicole, Sumana	-
Freezing/thawing cells	Adam, Cecile, Delphine, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana
HEK293 (E, F, 6E) cell culture (incl. transfection)	Cecile, Delphine, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana
Hybridoma generation (fusion, culture, screen)	Cecile, Nicole	Nicole
I.P. injection mouse	Cecile, Delphine, Enrica, Francis	-
Immunofluorescence	Delphine, Enrica, Francis, Sumana	Enrica
Intracardiac puncture	Delphine	-
In vitro fertilisation (mouse)	Enrica	Enrica
I.V. injection mouse		-
IVIS	Delphine	Delphine
Leishmania culture		
Lentivirus production/ transduction	Adam, Sumana	Sumana
Magnetic beads purification	Adam, Delphine, Francis	
Mouse oocyte harvesting	Enrica	-
Myeloma/hybridoma cell culture	Cecile, Nicole	Nicole
Parasite isolation from blood	Delphine	
PCR/DNA digest/ligation	Adam, Cecile, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana

Percutaneous infection (mouse)	Cecile	-
Plasmid transformation of competent E. coli	Adam, Cecile, Delphine, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana
Prey normalisation (beta lactamase)	Cecile, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana
Protein concentration quantification	Cecile, Delphine, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana
Protein dialysis/concentration	Cecile, Delphine, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana
Protein microarray (96-well/slides)	Nicole	
Protein press	Nicole	Nicole
qRT-PCR	Enrica, Francis	Enrica
RNA and cDNA prep	Cecile, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Nicole
SDS-PAGE	Adam, Cecile, Delphine, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana
Coomassie	Cecile, Delphine, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana
subcutaneous injection mouse		-
SYPRO Orange staining, Azure (Typhoon scanner)	Cecile, Francis, Nicole	Cecile, Nicole
(Transfectoma culture)	Cecile	Cecile
Western blot	Adam, Cecile, Delphine, Enrica, Francis, Nicole, Sumana	Cecile, Enrica, Francis, Nicole, Sumana

VECTORS AT GENEART AND TWIST

Last updated: 16/09/2015

Twist ref:	**Geneart ref:**	**Our ref:**	**Database ref:**
N/A	vector1_C819_	Mero-bio (no insert)	V
N/A	C820	type II signalpeptide-bio-linker-Cd4	V
v1_SP-HLBio-Cd4	p1943_E668	type II signalpeptide-his-linker-bio-Cd4	V75

N/A	C821	Cd4-COMP-beta-lac*	V
v2_Cd4-BioLH	p0821_D725	rat CD200 - Cd4- bio-linker-his	V64
v4_mero-Cd4-COMPBLFH	V087_MTRAP_M770	Mero (MTRAP) - Cd4-COMP-beta-lac-3xFLAG-His*	V87
v3_mero-Cd4-BioLH	I078	Mero (RH1) Cd4-bio-Linker-his*	V74
v6_mero-BioLH	P3054_Q942	Mero (RH5-N-term)-bio-Linker-his* (no Cd4)	V
v5_Cd4-COMPBLFH	N/A	- Cd4-COMP-beta-lac-3xFLAG-His*	V

L1 Induction and Rules

Updated 11th September 2021

New Staff/Student Induction for 2021/22

General Points

To keep the lab running smoothly, we have a standard operating procedure for all communal equipment and areas. Keep these areas tidy by cleaning up afterward and putting things back in the same place and condition as you found them.

If you are unsure about anything, ASK. It is always better to check before you do it.

New technicians, UG and PG students, and post-docs should be given a tour of the wet lab area by one of the current L1 technicians or the L1 Safety Officer BEFORE starting lab work.

ALWAYS wear a lab coat in the wet lab area.

Mobile phones should NOT be used in the wet lab area. Always set your mobile to silent mode in L1 write-up areas.

The use of headphones in the lab is strongly discouraged.

NO lab coats or gloves should be worn outside the wet lab area, unless you are transporting something that requires you to wear these items. DO NOT open doors outside the wet lab area with a gloved hand.

UNDERGRADUATE STUDENTS ONLY: All bags and backpacks must be stored in the lockers located on the landing outside the entrance to L1 corridor. Coat hooks are available in the write-up areas for jackets, *etc*.

Use of Communal Equipment / Areas

Lab Consumables (gloves, tissues, pipette tips, blue roll, *etc*.)

- If a consumable item is running out, please write it on the whiteboard for ordering. • Communal items are currently stored in room L146.

Microwaves and Heating Blocks

- DO NOT heat solutions in closed or partially closed vessels. If you do, a dangerous pressurised vessel will be established which will eventually explode. Use an open vessel that will allow the pressure to escape.
- Any spillages in the microwave/heating block must be cleaned up even if the substance is not hazardous.

Centrifuges (Beckman L7 Ultra and Optima TL Ultra, Sorvall and Sigma)

- New members of staff must receive departmental training (email: biol-infrastructure group@york.ac.uk) before using the Beckman L7 Ultra, Beckman Optima TL (in room L131), and Sorvall centrifuges for the first time. Undergraduate students must be supervised at all times by a trained member of staff when using these centrifuges.
- Sorvall (Lynx 6000) high-speed centrifuges and the Beckman ultra-centrifuge must be booked online before use. Please also book the rotor you plan to use.

(https://www.york.ac.uk/biology/intranet/operational-support/centrifuges/ then click on "*Online Booking System*" at top right of web page) The details of your centrifuge run(s) and a valid workorder code must be recorded in the logbook (next to centrifuges). Do not take someone else's booking without their permission. Any machine found to be running, but not booked, could be switched off.

The booking information on the web should be completed as follows:

- Always give a contact phone number and your name – your email is

automatically recorded.

- In the description box record the number of runs to be carried out and any hazard.
- Your PI or group name should be given instead of grant code.
- You must receive training from Dr. Christoph Baumann (christoph.baumann@york.ac.uk) before using the bench-top Sigma centrifuge for the first time. You must enter a code to use the Sigma centrifuge.
- The bench-top Sigma centrifuge must be booked before use. Do not take someone else's booking without their permission. DO NOT overfill Falcon™ tubes when using this centrifuge (max. of 10 ml in 15 ml tube, max. of 35 ml in 50 ml tube).
- Tubes MUST be accurately balanced by weight to within 50 mg (not by eye) and tube type, *i.e.* a Centricon™ must be balanced with another Centricon™ and not a Falcon™ tube.
- When a centrifuge is switched **on**, the lid must be **closed** to allow cooling. • Before starting each run, make sure the rotor lid is screwed onto the rotor. This holds the rotor in place during the run.
- When finished, check the rotor for spills, switch off the centrifuge and leave the lid open. Remove the rotor from the Sorvall centrifuges when finished. Leave the rotor in the Sigma centrifuge when finished.
- If any spillages occur, clean both the rotor and the inside of the centrifuge, and decontaminate if necessary. Only use 1% (v/v) Neutracon detergent for washing the rotors. Afterward rinse rotor with plenty of water, then oil with slushing oil (see Dr. Christoph Baumann for oiling instructions).

Gel-Doc

- Always wear gloves when touching any part of the gel-doc system, including the PC. This avoids personal contamination by ethidium bromide (even when your gel does not contain it).
- Take care when changing between the trans-illuminator and the white-light box. The white-light box must be placed vertically at the back of the light-proof cabinet using the clips provided for it. New users must receive training from an experienced user before using the gel-doc system unsupervised.
- When moving the trans-illuminator box back and forth, please ensure that the cable connected to the white-light box is not caught in the tracks.

- DO NOT pour liquid directly onto the trans-illuminator or white-light box. • Ethanol and water bottles, and tissues are placed in the gel room to clean the light-boxes after use. If these run out while you are using them, or are running low, please fill them up. Do not leave empty bottles or boxes in gel-doc room.
- Once you have taken your photo, leave the computer on with the Gene Snap programme open. Please close your image window when finished. You do not need to switch off the computer or gel-doc system.
- Extra printer film is available in the drawer under the PC. When you use the second to last roll of film, please write it on the whiteboard for ordering.
- Make sure you back-up your data as this is NOT done automatically.

Chemicals Room

- Chemicals must be put back in the correct place (alphabetical order) on the shelves or in the cupboard after use. No chemicals should be stored on the benches as there is plenty of room on the shelves.
- Any spillages must be cleaned up even if the substance is not hazardous. This involves cleaning the area around the balance as well as the top of the balance.
- Water bottles must be filled up with ultra-pure deionised water, not left empty or nearly empty. Do not replace empty bottles with a full one from the main lab.
- Tissue boxes must not be left empty. Replace with a new box.
- Do not leave empty chemical containers in the Chemicals Room or fume hoods. Wash them out with plenty of water (if not hazardous), remove hazard labels and dispose of the container in the appropriate bin (red glass recycling bin or recycling bin for plastics).
- Empty glass Winchester bottles should be washed out with plenty of water and saved for disposal of liquid chemical waste. Clean, empty Winchester bottles can be stored in the Chemicals Room on the floor under the bench to left of the fume cupboard and used as needed for the disposal of liquid chemical waste.
- Empty plastic 2.5 liter solvent bottles should be washed out with plenty of water, labelled with a recycling label (in top drawer beneath balances in Chemicals Room), and returned to Biology Stores for recycling (see below). Do not leave empty bottles in the fume hood.
- If a chemical is running out, check in the chemical cupboard for another. If there is none left then write it on the whiteboard for ordering (communal items only).
- Switch off the balances and pH meter after use. The pH probe should always be stored in 3 M KCl when not in use – make sure the end of the pH probe is covered by solution. • NEVER use an open flame in any of the fumehoods!

Gel Room

- If possible, all groups should use SYBR Safe DNA gel stain (Invitrogen) for their work as an alternative to ethidium bromide. Wear gloves when handling SYBR Safe as the gel electrophoresis equipment may be contaminated with ethidium bromide.
- If using ethidium bromide for agarose gels please take care as it is carcinogenic and mutagenic. Work in the designated area only (on the mat) on the bench.
- Agarose gels and any other items, *e.g.* gloves and tips, contaminated with SYBR Safe or ethidium bromide can be disposed of in a yellow non-hazardous identifiable lab waste bag.
- Wash out your gel equipment in the sink and leave to dry on the side where the agarose gels are prepared, not next to the sink where the PAGE equipment is stored.

Constant Temperature (CT) Rooms

- ALWAYS log your use of all warm room shakers. There are forms for this purpose in the CT rooms.

- Book the shaker for 2.5 liter flasks in advance using the diary in the warm room. • Do not leave things in the rooms unlabelled or for long periods of time without booking it. Things left in this manner will be autoclaved and discarded.
- Do not store items on the benches in the cold room for extended periods of time. All items should be labelled with your name and date. Bench-top areas are reserved for conducting experiments or protein purifications.
- Please check that the door of the 37C room closes completely as it has a tendency to wedge itself open.
- Never open your liquid cultures in the warm room to remove samples as this risks a phage contamination.

Laminar Flow Hood

- Please use the laminar flow hood (room L131) for handling sterile materials whenever possible to reduce the use of expensive gas canisters.
- Agar plates streaked with bacterial culture should NOT be dried in the hood. The hood should remain a sterile environment – no bacterial cultures!
- Label all freshly poured sterile plates before leaving them in the hood to cool and dry. • The inside of the laminar flow hood should be wiped with 70% (v/v) ethanol before and after use.

Class II Microbial Safety Cabinet

- This cabinet (room L131) can be used to handle Category 2 micro-organism(s), but you must consult with your PI and an experienced user before using it. A Biological Agents Risk Assessment for handling the micro-organism(s) must be completed and approved by the Departmental Safety Officer (Dr. David Nelson) before using the cabinet.
- The cabinet should be booked in advance using the hard-copy diary located on the left hand bench in room L131.
- The inside of the cabinet should be wiped with 70% (v/v) ethanol before and after use. • When finished with your work all items should be removed from inside the cabinet.

Waste Disposal

ALL LAB CONSUMABLE WASTE AND GENERAL WASTE MUST BE DISPOSED OF in either a clear autoclave bag, a `tiger´ bag, or a black `general waste´ bag (by hand wash sinks only) depending on its level/type of contamination (see below). Some decontaminated, plastic lab consumables can be recycled – see below for more information on the L1 Green Impact recycling scheme.

RESIDUAL CHEMICAL MATERIAL is defined as a non-hazardous concentration. Information on Chemical Waste Threshold Levels can be found on a poster in the L1 Chemicals Room.

DRY ICE SHOULD NOT BE POURED INTO THE LAB SINKS. Unwanted clean dry ice should be placed in the blue insulated box located in room L131 so it can be used by other groups. Dry ice contaminated with organic solvent should be left to sublimate in the fume hood.

Lab consumables

- Heavy-duty `tiger´ bin bags (`Non-Hazardous Identifiable Lab Waste´)

    o `Tiger´ bags should be used for non-hazardous identifiable lab waste, which does not require incineration or autoclaving. Black bins containing these bags must be labelled `Non-Hazardous Identifiable Lab Waste Only´ (labels are available from Biology Stores) – wire racks should not be used to hold `tiger´ bags. **We pay a significant disposal charge for every ‘tiger’ bag**

removed from the Department – therefore, these bags should only be used for non-hazardous identifiable lab waste that cannot be recycled or disposed of in a black `general waste´ bag. L1 has implemented a recycling scheme for some commonly used, plastic lab consumables, *e.g*. serological pipettes, 15 ml and 50 ml screw-cap tubes, micro-well polystyrene plates, polystyrene tubes, and syringes.

Please see Reyme Herman (in Thomas group) for more information about our lab plasticware recycling scheme.

o Significant volumes of non-hazardous liquids must NOT be place in the `tiger´ bags. Only residual liquid contamination of waste is allowed. For this reason, all non-hazardous liquids must be poured down the sink before putting a tube/container in the `tiger´ bag.

o Items contaminated with biological (human/animal tissue or fluids) or microbiological/GM agents must NOT be disposed of via these `tiger´ bags.

o Individual groups are responsible for closing and removing full bags in their lab areas (see next bullet point). The individual group responsible for the weekly L1 Glassware Rota will remove full bags in communal lab areas, *i.e*. Chemicals Room, Gel-Doc Room and Gel Electrophoresis Room.

o L1 lab staff are responsible for closing full `tiger´ bags (3/4 full or < 10 kg) with cable ties (Biology Stores code SHE6000), labelling with laboratory ID details (*i.e*. `L1 Communal´) and placing them near to the ice machine for collection by the cleaning staff. A supply of the heavy-duty `tiger´ bin bags, ID labels and cable ties can be found in the Chemicals Room.

o Uncontaminated pipette tips, or those contaminated with residual chemicals, must be placed in a `tiger´ bin bag. NOTE: It is recommended that pipette tips are collected in disposable plastic jars (available from Biology Stores) before disposal in a `tiger´ bin bag when full.

o Uncontaminated pipettes, or those contaminated with residual chemicals must be placed in Bio-Bin `pipette bins´ to avoid puncturing or splitting `tiger´ bags. Once a Bio-Bin is full, it should be sealed and placed into a `tiger´ bag for disposal. Individual groups should purchase Bio-Bin pipette bins from Biology Stores.

o Empty plastic chemical containers can be put in `tiger´ bin bags (**or washed and recycled, see below**).

o Weigh boats, micro-titre plates, centrifuge tubes, empty FPLC fraction collection tubes, disposable plastic flasks, petri dishes (no agar or bacterial contamination) and buffer filtration devices can be placed in `tiger´ bin bags if they are NOT contaminated with biological/microbiological agents, or they only contain residual chemical material.

o All lab tissue and blue roll contaminated with residual chemical material can be placed in a `tiger´ bin bag.

o Uncontaminated gloves or gloves contaminated with residual chemicals should be placed in the `tiger´ bin bag.

o Polymerised acrylamide gels can be disposed of in these bags.

o Empty gas canisters should be placed in the box near the ice machine for recycling.

- Large yellow bins (`Clinical Waste´ for incineration)

o Lab waste (tissue, blue roll, tubes, gloves, pipettes, pipette tips, plasticware, *etc*.) contaminated with hazardous concentrations of any chemical should be placed in large yellow bins. Information on Chemical Waste Threshold Levels can be found on a poster in the L1 Chemicals Room.

o These large yellow bins can be purchased from Biology Stores by individual groups.

- Small yellow `sharps´ bins

o All `sharps´ waste, glass vials, NMR tubes, glass ampoules and glass Pasteur pipettes should be disposed of in these bins, NOT the red glass recycling bin (see below).

o The `sharps´ bin must NOT be filled above the designated level. If the bin is full, seal the container and replace with a new one. A communal supply of new `sharps´ bins are stored in room L136 (under the sink). These small yellow bins can be purchased from Biology Stores.

o Glass crimp-top HPLC vials must be disposed of in these bins, NOT the red glass recycling bin (see below).

- Incineration `Anatomical Waste´ bag

o This type of waste disposal bag is not in use on L1 corridor. Please see the L1 Safety Officer if you need to start using these bags.

Bacterial

Liquid waste

o Decontaminate with Virkon™ (final concentration = 1% w/v) for 1 hour (or alternatively use Presept). Chloros can only be used on glass containers.

Solid waste

o Place in a clear autoclave bag and send for autoclaving (see guidelines below). o Where an autoclave bin (rather than a wire rack) is used it should be labelled 'Autoclave Waste Only' (labels available from Biology Stores).

o Pipettes contaminated with bacterial culture should be placed in a small autoclave waste bag. They should not be mixed with other solid waste in a large autoclave bag as there is a risk of puncturing the bag.

Chemical

- Most chemicals can be washed down the sink with plenty of water. Those that cannot be washed down the sink must be placed in a clearly labelled GLASS waste bottle and taken to Biology Stores for disposal.
- Clean, empty Winchester bottles can be found in the Chemicals Room on the floor under the bench to left of the fume cupboard, or obtained from Biology Stores.

Glass

- Wash out glass chemical bottles thoroughly with water, remove hazard labels and plastic closures, and place in the red glass recycling bin (in room L138).

- Empty glass Winchester bottles should be washed out with plenty of water and saved for disposal of liquid chemical waste. Clean, empty Winchester bottles can be stored in the Chemicals Room (room L138) on the floor under the bench to left of the fume cupboard and taken as needed for the disposal of liquid chemical waste.
- Make sure you remove all hazard labels from the glass waste before placing it in the red glass recycling bin or taking it to Biology Stores.
- Small glass pipettes in the gel room must be discarded in the yellow `sharps´ waste bin, NOT the red glass recycling bin.
- All glass microscope slides and cover slips must be discarded in a yellow `sharps´ waste bin, NOT the red glass recycling bin.
- All glass crimp-top HPLC vials must be disposed of in a yellow `sharps´ waste bin, NOT the red glass recycling bin.
- DO NOT dispose of fluorescent bulbs, tungsten bulbs or mercury lamps in the red glass recycling bin. These should be taken directly to Biology Stores for disposal – mercury lamps will be sent to Chemistry for disposal.

Plastic

- Do not leave empty plastic chemical containers in the Chemicals Room or fume hoods. Wash them out with plenty of water (if not hazardous), remove/cross out hazard labels and dispose of the container in the appropriate bin (lab recycling bin or `tiger´ bag). **Everyone should recycle plastic packaging and containers where possible.** • Empty plastic 2.5 liter solvent bottles should be washed out with plenty of water, a recycling label affixed on top of solvent label without covering up the solvent name, and returned to Biology Stores for recycling. Recycling labels are stored in the drawer beneath the balances in Chemicals Room. Do not leave empty bottles in the fume hood.

Paper and Cardboard

- Paper packaging can be placed in the lab recycling bins.
- Flatten out cardboard boxes/tubes and place in the cardboard recycling bin near to the ice machine.

Glassware

All research groups on L1 share communal glassware. This glassware is stored in labelled cabinets along the windows. When you finish using a piece of glassware, you should wash it with soapy water, rinse well with tap water followed by deionised water (green tap), then place it in the communal drying oven. Glassware should not be left to dry next to the sinks as this poses a safety hazard. All lab glassware breakage should be recorded on the sheet posted near the whiteboard.

Autoclaving: Microbial Waste Disposal and Media Sterilisation

All research groups are responsible for their own autoclaving. You should discuss the local rules for autoclaving items with your PI. The following notes are for guidance only.

Routines for safe disposal of waste

- All waste must be double-bagged, and the outer bag taped and labelled with PI's surname and floor number (L1).
- Autoclave bags MUST NOT be overfilled – half full is ideal. They must fit into the autoclave buckets allowing steam penetration of the contents.
- `Sharps´ (including syringe needles and razor blades) MUST NOT be put into autoclave bags.
- Empty gas canisters should NOT be placed in autoclave bags.

- Chemicals that vaporise, *i.e.* those handled in a fume cupboard, must not be put into autoclave bags.
- Puncturing of bags by plastic pipettes or cocktail sticks will be recorded as an incident. Cocktail sticks should be put into a plastic tube or wrapped in paper.
- Prior notification is required for the handling and autoclaving of blood and tissue products.

Waste Disposal and Lab cleaning duties

Memory Aid for Lab Waste Streams

Friday Bins and L1 communal tasks

Rota Google Calendar (TC flasks, Bins, L1 tasks)

TC Room and Flask cleaning

Biology Stores Counter Opening Times - Monday to Friday - 9:30 - 12:30 & 13:30 - 15:00

Autoclave Facility - Monday to Friday - Items brought by 10.30 can be picked up on the same day, items brought by 1.30 will be ready the next day *See TC room and flask cleaning for TC flask instructions

Sterilisation of clean media, plasticware and glass items

- Media must be contained in suitably sized glass or plastic container. Contents should not exceed 2/3 of full volume to prevent spillage. Use the following guidelines when filling containers with media /agar:
    - o 100 ml bottle (max. volume = 60 ml)
    - o 500 ml bottle (max. volume = 300 ml)
    - o 1 liter bottle (max. volume = 650 ml)
    - o 500 ml conical flask (max. volume = 250 ml)
    - o 1 liter conical flask (max. volume = 600 ml)
- Tops of bottles should be “cracked” open to allow for expansion.
- Media containers and tip boxes must be labelled with group initials and floor number, and sealed with a small piece of autoclave tape.
- Autoclave runs for sterilisation of media, glass and plasticware are scheduled at the following times each work day (subject to change): 10:30 and 13:30 (items available for collection the next work day).
- If you have a large number of items for autoclaving, *e.g*. 6 x 500 ml conical flasks, please let the Autoclaving and Glass washing (A&G) Staff know (email: biol infrastructure-group@york.ac.uk) one day in advance.

Lone Working in the Research Labs

If a postgraduate research student or post-doc is working outside normal working hours in the laboratory, **all work must be inherently low risk**. A formal risk assessment is required for higher risk lone working activities. Guidance on lone working in the laboratory can be found on the departmental website: http://www.york.ac.uk/biology/intranet/health-safety/lone-working/ (excerpts from website below)

"*Lone working represents a situation where a person has neither visual nor audible communication with someone else who can summon assistance in the event of an accident, illness or other emergency. Lone working can, therefore, include those work activities undertaken both: during* ***normal departmental working hours*** *(8.00-18.00 weekdays) and outside normal departmental working hours (includes weekends and holidays when the University is closed)."*

"Supervisors of all lone workers must be satisfied that an individual has received appropriate training and has the necessary experience before allowing lone working. It is good practice for those individuals working outside normal working hours to inform a friend or family member of their location and approximate time of return."

Undergraduate Project Student Supervision

- No undergraduate (UG) student is allowed in the lab before 9:00am or after 5:00pm without direct supervision – a student must arrange for supervision BEFORE starting their experiments. It is not sufficient to have a supervisor in the dry area – students must be accompanied in the wet lab by a supervisor.
- UG students cannot work after 7:00pm Monday-Friday, or on the weekends. If an UG student must conduct lab work outside normal departmental working hours then the project supervisor must give permission in advance by completing the out of hours permission form.
- All accidents should be reported to your supervisor and the L1 Safety Officer (Dr. C.G. Baumann).

Dr. Christoph G. Baumann

L1 Safety Officer