

## Notebook of Health and safety



Laboratory BioPeroxIL

(Biochemistry of the peroxisome, inflammation and lipid metabolism)

2nd floor - North wing – Building Gabriel  
UNIVERSITY DEPARTMENT Sciences Life  
6 boulevard Gabriel 21 000 DIJON

Dir. of team: Pr Stéphane SAVARY

## **Useful contacts in the laboratory**

- Secretary: Nathalie Bancod (office 218 - post 6237)
- Competent Person in radioprotection: Catherine Gondcaille (office 221 - post 6203)
- Assistant of prevention: Catherine Gondcaille (office 221 - post 6203)
- Rescuers first-aid workers: Nathalie Bancod, Catherine Gondcaille
- Persons in charge of computing: Pierre Andréoletti (office 222 - post 6255)
- Person in charge of orders : Vivien Pires (office 221 - post 62.03)

## **Useful contacts in the university**

- Engineer Health and Safety: Linda GHARZOULI (office 45 at the "Maison de l'Université" - post 5545)
- Prevention doctor : Dr Anne Carrere (Preventive medicine 6A street Bouchard – post 5161)
- Technical Services : Daniel Neiderlander (street Bouchard – post 5070)
- Caretaker of the building Gabriel: 50.03

## **Emergencies**

- Medical emergencies: 15 (NATIONAL EMERGENCY MEDICAL SERVICE) indicate your name, the precise place of the accident, the number of wounded person (s), the state of (s) the victim (s)
- Set on fire: 50.03 (Gabriel building concierge) or 75.44 (fire brigades express if no answer to 50.03)
- Technical emergencies (fire extinguishers, emergency lighting, elevators, electricity, plumbing, locksmithery, fire alarm): 50.70 (24 hours a day)

## General instructions in security

*Each must :*

- *Worry about his own safety, about that of his(her) colleagues as well as about the environmental protection.*
- *Inquire working best practice, capacities to be taken in the event of an accident or of disaster and to be aware of involved responsibilities.*

· **Safety instructions in the building :**

- Do not fill fire doors
- In case of fire alarm, go without haste to the exit by taking the stairs of the north wing
- NEVER WORK ALONE IN THE LAB (see Stéphane's mail in appendices)

· **Capacity for work in laboratory:**

Every person has to inform the preventive medicine in case of major health problem, of allergy known about a product, of asthma or in case of pregnancy. It is the doctor of prevention who will define in which conditions the person can work.

· **Accident prevention:**

The most frequent causes of accidents are:

- \* The lack of experience
- \* The misunderstanding of the installations and the organization of manipulations
- \* The haste

It is thus necessary to:

*Inquire and form:*

- \* With his(her) colleagues, with his(her) person in charge, with the assistant of prevention
- \* By consulting works which describe the dangers of the manipulation, the safety data sheets of products, catalogs ...

*Inform:*

- \* By marking out the dangerous manipulations (the marking must be clean, clear, not exaggerated and out-of-the-way as soon as the danger does not exist anymore)

*Verify:*

- \* The good state of the equipment to be used (electrodes, rotor)
- \* Follow the instructions concerned the labels of chemicals or the safety data sheets (or inquire in catalogs) (see paragraph " chemical risk ")
- \* To check the quality of products (make eliminate quite produced doubtful, soiled, old, stored for a long time)

*Protect itself:*

- \* By learning to use the equipment of collective protection (hoods, device of detection)
- \* By protecting itself individually: gloves, lab-coat, glasses, mask, screens... Caution in particular on eyes (if risks of projection, explosion) and in hands (in case of use of corrosive products, glass...)

*Get organized and locate the dangerous situations:*

- \* Potentially dangerous situation: several independent manipulations on the same workstation, the manipulation with stages made on different posts
- \* Reconstitute " the environment of safety " necessary for every manipulation
- \* Recondition the place after every manipulation: arrangement of devices, adequate evacuation of products, cleaning

*Respect some simple rules:*

- \* Wear glasses and lab coat for any manipulation
- \* Do not smoke, eat, drink, make up in the lab
- \* Do not pipet with the mouth
- \* Do not inhale an unknown product
- \* Attach long hair
- \* Do not wear floating clothes

## Manage the first emergencies

\* Call the contacts (page 2) in case of fire, immediately medical or of technical problem

\* **In case of fire in the lab:**

- Activate one of the alarms situated in the corridor, try to put out the fire (if it starts) with the closest fire extinguisher

\* **In case of medical emergency:**

- Address in a "rescuer first-aid worker" (SST) (see list page 2)
- If you are only:
  - *If the victim speaks:* lengthen her, heightened legs, reassure her, cover her, watch her. Give nothing to drink.
  - *If the victim does not speak:*
    - ° but she breathes: put her in PLS (Side Position of Safety)
    - ° and if she does not breathe: cardiac massage

\* **Specific cases:**

- Fire: roll on the ground, suppress flames with a lab coat
- Projection of corrosive products: immediate and prolonged wash (15 min minimum) in the tap water
- Charging: cut the supply, otherwise isolate itself of the ground with a stool and pull the victim by her clothes
- Poisoning: gestures of first emergencies + call the medical center (not make vomit or drink)
- Bleedings: compress the point of bleeding.
- Fractures: do not move the victim
- Fill the register of health and safety in case of incident (even minor) or with accident (it is with the pharmacy, in the cupboard of the secretarial room)

\* **Law of withdrawal:**

In case of danger presenting a threat for your life or your health, you have the "right" to leave your workstation. Warn immediately the people concerned by the existence of this danger.

## General risks in a laboratory

### CHEMICAL RISKS

The use of reactive chemicals can lead to various risks of physico-chemical nature (explosion, inflammation release of heat) or of toxic nature.

The reactive chemicals are so listed in various classes of danger:

Class of danger:

#### Physical Hazards



Corrosive to metals



Flammable



Oxidising



Gas under pressure



Explosive

#### Health Hazards



Health hazard



Corrosive



Serious health hazard

#### Environmental Hazards



Acute toxicity



Hazardous to the environment

### The toxicity of a product also depends:

- On the quantity introduced into the body (dose)
- On the cumulative character of doses or the effects
- On the way of penetration
- On the metabolic capacities of the individual
- On the state of the subject and the conditions of moment (get tired, stress, etc.)
- Other products introduced into the body accidentally or not (other toxins, food habits, tobacco, alcohol, drugs, medicine)

### Way of contamination:

#### Ingestion:

- \* by the oral pipetting
- \* by the incorrect bearing of gloves, a bad hygiene
  - => \* Do not drink, smoke or eat in the laboratory
    - \* Wear gloves
    - \* Rigorous hygiene of hands
    - \* Mechanical pipetting

#### Penetration by eye way:

- \* by the projections and the sprays
- => \* Wear glasses
  - \* Avoid the creation of sprays
  - \* Work in a PSM (Microbiological Safety Post)

#### Penetration by cutaneous way:

- \* by the projections
- \* by direct contact
- \* by wounds
- => \* Wear gloves
  - \* Avoid the projections
  - \* Protect particularly the hurt segments of skin

#### Inhalation:

- \* during the operations of grinding, centrifugation
- \* during the operations of singeing, homogenization
- => \* Work in a PSM
  - \* Spin in sealed or hermetically closed tubes
  - \* Open tubes in a PSM

Before any manipulation, it is essential to know the risks and the precautions to be taken by reading safety data sheets and possibly toxicologic index cards or at least sentences of risks R and S.

In the laboratory, these index cards are archived in order alphabetical in 3 files situated on the shelf of the weighing room 209 (If you do not find a safety data sheet, you can go on the site of Sigma <https://www.sigmaaldrich.com/>, you enter the name of the product which interests you then click on "MSDS" or "FDS").  
For the transport of dangerous product: prop up the tube in a tight bowl, not opening in case of fall.

In the event of an accident with dispersal of the product, mark out the contaminated zone, warn colleagues and wear clothes in an adequate way to disinfect.

If the product is spread on the ground, cover with cat litter (it is stored in the shelf in the weighing room 209) to absorb the liquid. Eliminate the litter in the can for toxic waste (white container) solids.

If the manipulator is contaminated, he has to remove his soiled clothes and rinse in the water (during at least 15 min) the contaminated parts of the body.

Every person manipulating a dangerous product has to indicate it on its individual index card of exposure to the dangerous products which will be annually transmitted in the preventive medicine.

#### Some examples of potentially dangerous chemicals used in our lab:

- HCl, NaOH, KOH (**acids** and strong **bases**): reactives on the water
- Hydrogen peroxide: powerful and explosive oxidizer
- **Solvents** (phenol, chloroform): physico-chemical risks + toxins for the man
- trypan Blue, formaldehyde, acrylamide, ethidium bromide, SDS, Hoechst, purple crystal, propidium iodide: **carcinogenic, mutagenic, toxic for the reproduction (CMR)**
- cryogenic Fluids: CO<sub>2</sub> and N<sub>2</sub>: toxins by frostbites for the man
- Gas O<sub>2</sub> and N<sub>2</sub>: **explosives**

#### Particular case of the carcinogenic, mutagenic, toxic for the reproduction (CMR):

There are 3 categories of risks:

- group 1A: substance known to cause a risk
- group 1B: substance strongly presumed to cause a risk
- group 2: information stemming from studies suited to the animal are insufficient to classify the substance in category 2

Before any manipulation, each person handling CMR must have been formed by its framing or prevention assistant, or have undergone training organized by the university. It must also be authorized by the doctor for prevention.

Classement	Symbole	Exemples
Carcinogenic cat. 1A		
Carcinogenic cat. 1B		crystal violet, bleu trypan, Formaldéhyde
Carcinogenic cat. 2		acrylamide, chloroforme, formamide
Mutagenic cat. 1A		
Mutagenic cat. 1B		Acrylamide, hoechst 33 342,
Mutagenic cat. 2		Acridine orange, BET, cycloheximide, chloroforme, Formaldéhyde, iodure de propidium, phénol, MTT
Reprotoxic cat. 1A		
Reprotoxic cat. 1B		Formamide, acrylamide
Reprotoxic cat. 2		Acide borique, hexane, toluène

- Follow particularly the instructions of manipulation.
- Storage: avoid the scattering of storage places, mark out the storage place
- Preparation of solutions: favor the purchase of solution to avoid the manipulation of powder, manipulate under hood or with laminar flow to prepare the dilutions, not weigh an exact quantity (limit manipulation), plan an unbreakable, resistant bowl in the product and in the solvent, hermetic.

## **BIOLOGICAL RISKS**

It concerns the experiments in bacteriology and in cell culture.

Before any manipulation, each must know to which class of pathogenicity for the man belongs the microorganism which he is going to cultivate. There are 4 pathogenicity classes C1, C2, C3, C4 (C1 for the least dangerous pathogens, C4 for the most dangerous), associated with 4 biosafety levels L1, L2, L3, L4.

In the BioPerox-IL laboratory, the micro-organisms used in molecular biology are all class 1 bacteria.

Animal cell lines used in cell culture may be class 1 or 2. However, they will all be grown in biosafety level 2 in rooms 215A, 215B or 215C.

The classification is the following one:

### **Class1 – Safety level 1:**

- \* Microorganisms not genetically modified by class 1 (having no pathogenic power for the man and not constituting a threat for the environment)
- \* Genetically modified not pathogenic microorganisms carrying fragments of foreign DNA without pathogenic power
- \* Normal or immortalized animal and vegetable cells (units) and transgenic plants not producing virus or not producing only viruses of class 1, Ea1 or Ep1

### **Class2 – Safety level 2:**

- \* Microorganisms not genetically modified by class 2 (which can cause diseases in man but the scattering of which in the environment is not very probable, which are without risk for the community and against whom a disease prevention or effective treatments are known)
- \* Microorganisms genetically modified by class 2 in which vectors or cloned sequences do not increase the class of risk
- \* Carrying genetically modified not pathogenic microorganisms, either genes coding for proteins having a limited pathogenic power, or important fragments of genome of microorganisms of class 2, Ea2 or Ep2
- \* Animal cells expressing a virus of class 2 or Ea2
- \* Animal Cells sheltering vectors of expression which contain genes coding for proteins having a limited pathogenic power either fragments of human genomes or unknown animals or the important fragments of genome of microorganisms of class 2 or Ea2
- \* Plant cells and transgenic plants producing viruses of class Ep2

### **General reminders on best practice in laboratory of safety level 1:**

- Wear a lab-coat
- Wear gloves if necessary (if wound in hands)
- Wash hands before and after the manipulation
- Disinfect the bench before and after the manipulation, as well as after the contamination

- Eliminate the solid waste in specific containers (yellow trash cans); inactivate (in Javel) liquids contaminated before elimination in the sink.

In the case of GMO L1, the solid waste will be also disinfected in Javel before elimination in the yellow trash cans.

Needles and sharp equipments are collected in a yellow special trash can.

In case of contamination of the equipment, clean with detergent and disinfect with ethanol 70 °.

Avoid the creation of sprays and projections (a suspension of microorganisms must be never mixed by aspiration and successive expulsions through a pipette and chased away brutally).

### **General reminders on the BP in laboratory of safety level 2:**

- Be trained by your supervisor or by the prevention assistant before any handling.
- Wear a specific lab-coat, gloves (changed regularly)
- Manipulate only under PSM of type II, in a ventilated room reserved for the manipulation of microorganisms level II.
- Use only the equipment present in the room
- Eliminate the solid waste in specific containers (yellow trash cans); inactivate liquids contaminated before elimination in the sink
- In case of contamination of the equipment, clean with detergent and disinfect with ethanol 70 °
- Avoid the creation of sprays (see above)
- Follow the procedure of use of the rooms of culture in the laboratory posted in the culture room (and inserted in appendix to this document)

## RISKS LINKED TO ANIMAL EXPERIMENTS

- Ethical assessment and authorization of research projects

Any research project involving animal experimentation must undergo a favorable ethical evaluation by an approved ethics committee. It must also be authorized by the Ministry of Research.

To handle animals, you must:

- be trained in animal experimentation:

2 possible levels of training:

level 1: for researchers and project designers with direct scientific responsibility for animal experimentation

level 2: for technicians or other persons directly involved in animal experiments

- follow the rule "3 R" :

- Replacement: sensitive species by less sensitive species or in vitro "not living beings"
- Reduction: of the number of animals at least necessary for the obtaining of valid results and for the only essential experiments
- Refinement: means reduction of the animal suffering (anesthetics and essential painkillers)

- What risks and which precautions?

Contamination by germs worn by an apparently healthy animal: in particular cases of zoonoses (can be mortal!)

- Through the skin: bite, scratch, sting.

⇒ Wash with soap then disinfect

⇒ Prevention: wear gloves, wash of hands

- Eye Way: sprays, spatters, contaminated oculars of microscope, friction of eyes with dirty hands.

⇒ Wash 15 min in the "rinse-œil" + antiseptic eye drops according to the doctor

⇒ Prevention: wear gloves and glasses, wash of hands

- **By ingestion:** rare, by carrying in the mouth of the soiled hands
  - ⇒ Do not make vomit, not make drink, see a doctor as a matter of urgency
  - ⇒ Prevention: no oral pipetting, wash of hands, change of gloves, no drink, food or smoke, change lab-coat between the animal housing and the labs
- **By inhalation:** rare
  - ⇒ Prevention: avoid the production of sprays, not smoke, wear a mask

## **RADIATION RISKS**

- ⇒ See Catherine Gondcaille (Personne Compétente en Radioprotection)

Anyone who is required to handle radioactivity is required to undergo theoretical training organized annually by the university, as well as in-lab practical training.

## General functioning of the laboratory

### · Personal protective equipment:

- All operators must wear a cotton lab coat and safety glasses.
- Marie-Thérèse is responsible for cleaning the lab coat once a week => put your lab coat in the blue laundry bin at the entrance to the culture block.

### · Autoclaving and sterilization:

- use the small autoclave (room 209). For the first use, ask advice from the assistant of prevention.

### · Water: (room 209)

The system of purification of water allows to have:

- distilled water (big white reservoir). This water is used for the rinsing of the lab dishes, to feed the ice-maker, to prepare electrophoresis buffers...
  - ultra-pure water (benchtop dispenser). It is used to make solutions requiring a quality of water DNase-, RNase-free.
- Ensure to close always well the faucets of distilled water and water MilliQ.

### · Dishes:

- Each person is responsible for its dirty dish.
- Hand wash the graduated glass test tubes (they break in the dishwasher) and rinse them in the tap water then in the distilled water.
- Keep the dirty glass pipettes and wash them in the machine.
- Do not store a dirty dish in the edges of sinks (we do not know any more if it is clean or dirty; it is in imbalance, we risk to make of the breakage and to injure somebody).
- Rinse quickly the dirty dish before putting it in the washing machine (otherwise there are crystals or agarose at the bottom of dishes and it may block the machine).
- Tidy up the clean dishes in cupboards by respecting the organization. Tidy up flasks with their stopper. Watch out : bottles marked "CC" are intended for the cell culture and have to be sterilized then stored in room of culture ; bottles marked "BM" and those without indication being intended for the solutions of biochemistry or molecular biology.
- Well close the windows of cupboards to avoid the dust.

### Chemical products: (room 209)

- The weighing of products is made on the balance in room 209 for products without risk, or on the balance in the hood of room 210 for hazardous products
- Do not mix the non-hazardous products (shelves) and the dangerous products

(grey cupboard or cupboard acids-bases).

- Respect the alphabetical order arrangement of products.
- After weighing, clean carefully balances and their neighborhood (not with a brush, that lifts dusts, but with some wet absorbing paper).
- Before a product is running out, ask to order it. Inform the person in charge of orders.
- After use of the pH-meter, clean the probe in the ultra-pure water abundantly then put the probe in the solution of storage (KCl 3 M).
- Ethidium bromide is only handled in room 212: the area on the left as you enter up to the sink, and on the right as you enter up to the end of the electrophoresis bench. No material that has been in contact with BET may leave this room. Garbage cans for BET-contaminated liquids and solids are located under the electrophoresis bench. The same applies to acrylamide, which is handled under the left-hand fume cupboard in the same room.
- Other CMRs such as propidium iodide, acridine orange, crystal violet, Hoechst 33342... are handled only in room 211, under the fume cupboard reserved for this purpose. Waste is disposed of in the same containers as the BET.

· **Nitrogen and gas:**

- A bottle must be always attached by a chain (in the wall or on the trolley)
- For the transport of a bottle (on the trolley), between the lab and the basement, use the elevator but only for the bottle ("do not accompany" the bottle).
- Follow the instructions of manipulation of gas cylinders posted near bottles.

· **Cell culture:**

- Wash of hands: soap 30 seconds, rinse with water then with ethanol
- The rooms of culture are pressurized, think of closing correctly and slowly doors behind one.
- Ensure cleanliness of equipment (regular inspections to ensure absence of bacterial or fungal contamination) and supply incubators with CO<sub>2</sub>. Participate in maintenance (hoods, incubators, water baths, centrifuges).

· **Some remarks on the use of the equipment:**

- Ensure to close well the doors of refrigerators, freezers and of the ice-maker.
- Limit the time of opening of freezers (otherwise that makes full of ice!).
- Cut the gates of gas inlet after use.
- In anticipation of the use of the TECAN spectro-fluo-luminometer reader and qPCR device (StepOne), reserve use slots on the laboratory website, under "Equipment", "Equipment reservation" (login codes have been given to team leaders). Please note that use of the StepOne is shared with the first floor laboratory; slots are reserved

for them. Contact Catherine or Vivien to find out about these slots.

- Ask advice for the first use of devices.
- After putting on the way of a centrifuge, wait until it reaches the deliberate speed. If we hear a strange noise, stop immediately CF and verify the positioning and the balancing of tubes.
- Ensure to remove always the rotors of the ultra-CF after use and to tidy up them in their portoir in polystyrene so that they dry. Wash them (with the cleaner planned for that purpose) and rinse them in the so necessary water (in particular if bacterial contamination during the maxiprep of DNA).
- Fill the user manual after use of CF JA-20, JA-14 and Ultra-cf.
- Microwaves: do not use metallic things inside (spoonbills, aluminum foil)
- Hoods: for a good use, lower the window to the level of the black line, otherwise it rings because the extraction of air is not correct.
- In case of problem on a device, contact Vivien or Catherine.

### **Storage at 4°C / -20°C / -80°C**

- Each team has its own storage areas in fridges and freezers. Refer to your supervisor to store your samples in the right place and avoid losing them.
- Products, culture media, samples, etc. must ALL be CLEARLY IDENTIFIED: owner's surname, first name or initials AND date. Unidentified samples will be discarded the next time the storage area is sorted.
- Do not store tubes on racks, but in boxes or bags.
- Dispose of solutions, samples, etc. that do not need to be stored.
- All trainees must sort out their samples in the fridges/freezers before leaving the laboratory.

### **Some remarks for a good agreement within the lab:**

- Clean the "common" benches after use. They owe remained clean and tidied up after use (in particular: balances, pH-meters, micro organic post)
- When they are empty, fill the bottles of bleach (pastilles in Marie-T's office, to be diluted to 1 liter with tap water), bottles and cans of ethanol 70 ° (stock in the laundry), bottles of distilled water.
- Think that you are not only to manipulate and that the respect for each begins with the respect for the current situation and the common equipment.
- After 18:00 pm, lock automatically the doors of all the rooms.

## Sorting of waste in the laboratory

- see the assistant of prevention for the supply and the elimination of the trash cans of specific waste (acids, bases, solvents, CMR, soiled packaging, biological waste)

- **biological Waste:**

- **Liquid:**

They must be disinfected by the bleach whatever their safety level. Let disinfect one night minimum then throw to the sink.

- **Solids:**

Petri dishes, gloves, paper absorbing, flasks of culture, tubes, syringes, tips and pipettes... contaminated must be thrown in the yellow trash cans whatever the safety level and the species of origin of the bacterial strain or the cellular lineage. Pipettes will be evacuated in the plastic yellow trash cans, the rest in the cardboard yellow trash cans.

These yellow trash cans are available or in the little room "gas" located next door of culture rooms or under the bench for bacteriology. When they are full, store them in the entrance of the block of culture (next to the reels of paper).

- **Prickly or sharp Objects (contaminated or not by cells or tissues):**

- Needles, scalpels, blades of cutter ...
- **Risks:** wounds or stings possibly associated with a contamination (biological or chemical)
- **Sorting:** store in the yellow packaging of type " boxes with needles " in the rooms of manipulations. Do not recork needles before throwing them (risk of wound)

- **Carcinogetic, mutagenic or reprotoxic products ( CMR):**

- **Risks:** toxicity by ingestion, inhalation, for eyes, respiratory tracts and skin according to the considered product
- **Sorting:** - Gels, tubes, tips, plastic pipettes or glass soiled: in the white trash can (under the bench of electrophoresis, room 212)
- Buffers: in the noted jerry can " liquid toxic waste " (under the bench of electrophoresis, room 212)

- **Chemicals at risk other than CMR:**

- **Risks:** toxicity by ingestion, inhalation, for eyes, respiratory tracts and skin according to the considered product
- **Sorting:** - Gels, tubes, tips, plastic pipettes or glass soiled: in a white trash can (in labs 210 and 211). Air-dry under hood tips and tubes which have been in contact with products before throwing them in the trash can.

- Buffers (other than solvent, acid, bases): in the noted jerry can "liquid toxic waste" (under the bench of electrophoresis, room 212)

- Acids, bases and solvents:**

- Risks: toxicity for the skin and the mucous membranes (eye, nasal, respiratory, digestive).
- Sorting: - jerry cans of storage with label are planned for every category and stored in rooms 206.

Red label: for solvents inflammable (halogenic or non-halogenic > 2 cans)

Green label: for strong bases (pH > 9)

Yellow label: for strong acids pH < 4)

Attention on the incompatible products (see data sheet)

If you have a doubt, ask advice from Catherine.

NEVER PUT NITRIC ACID IN CANS!

- Glass waste or packaging:**

- Ordinary glass (empty wine bottle, glass): store in the blue box of the kitchen which will be regularly emptied by Marie-T. Rinse bottles before throwing them.
- Broken laboratory dishes (test tube, erlenmeyer, beaker): store in a white can (under sink, room 210).
- Glass packaging, metal or plastic soiled by chemicals (dangerous or not): store in the black big trash can under the sink in lab 210. Put back caps on packaging so that there is no leakage of product. Do not rinse flasks before throwing them.

- Pure or concentrated chemicals which cannot be eliminated in the aforementioned containers:**

- Leave in the original packing with the labeling in good condition
- Give to the assistant of prevention which will take care of its evacuation

## How to use cell culture rooms

**1/** Before the manipulation, reserve your time slot on the schedule posted on the doors of rooms. **Compulsory registration.**

**2/** All the rooms (215 A, B and C) are considered as safety level II (L2)

**3/** Enter the airlock, wash your hands then enter the culture room.

When you are in L2 put on the disposable lab-coat and the gloves recommended in L2 (lab-coat in the course of use will be stored in their plastic bag of origin with the name of the owner, in the blue box under the sink and will not go out of the room). You will thus leave lab-coat and gloves before going out of the room. When required, throw the lab-coat in the yellow trash can (the stock of disposable lab-coat is in the entrance of the rooms 215).

Because of the pressurization of rooms, ensure to close systematically the doors of the airlock and the rooms behind you.

**4/** Switch on the PSM about ten minutes before the use. Quickly clean the PSM with ethanol. Before every manipulation, clean with ethanol the trash little can " liquid waste " before settling it within the PSM.

**5/** The first user of the day empties the trash can of effluents chlorinated in the sink (noted " decontamination in Javel during 12 hours "), lets pour 2-3 minutes the tap water and puts back a bottom of bleach in the trash can.

**6/** Follow the instructions of use of the PSM:

- No storage under the PSM
- Limit the number of tubes and boxes
- Manipulate in most farther of the vein of guard
- Do not lean against the vein of guard
- Do not make flow of cell culture medium under the tray (bench), otherwise clean

**7/** Follow the instructions of use of the other equipments of the rooms:

- Ensure not to suck up medium to the filter of the pipetaid, otherwise change the filter
- Put the pipetaid in charge after use
- Check that the incubator is closed and that the water level inside is correct

**8/** Elimination of waste

- At the end of manipulation, add a some chlorine in the trash can " liquid waste " under the PSM in level 2, decant then in the trash can for chlorinated effluents
- Evacuate the solid biological waste in the yellow trash can, the not biological waste

in the black bin, in the airlock

- The yellow trash cans are taken out of cell culture rooms only when they were hermetically closed

### **9/ at the End of the manipulation**

- Clean the PSM with water (if medium is spilled), then with alcohol (sides, top and bottom of tray)
- Run it another ten minutes
- Wash your hands before going out of the airlock

### **10/ Maintenance of the equipment**

- 1 time / month the PSM, the incubators and the bain-marie are cleaned according to the instructions posted on devices
- Ensure to clean regularly with ethanol the bench, the buttons of centrifuge, platforms, thumb wheels and oculars of microscopes, handles and doors of incubators and rooms

### **11/ Supply and distribution of consumable plastic**

- The plastic consumable in unitary packaging (pipettes 25,10, 5 ml, stick x well) as well as cryotubes, 15 and 50 ml tubes are common. Check the stocks and renew stocks before leaving the room
- The consumable as micro-tubes, bags of Petri dishes or flasks, or tips are personal. Each will ensure to indicate his name above and to tidy up them in cupboards.

## Laboratoire Bio-PeroxIL

Biochimie du Peroxysome, Inflammation et Métabolisme Lipidique  
Université de Bourgogne - Faculté des Sciences Gabriel  
6, boulevard Gabriel - F21000 DIJON

Dijon, September 06, 2023

### To all permanent and trainee members of the BioPeroxIL laboratory

Ladies and Gentlemen, dear colleagues,

I would like to remind you that it is of the responsibility of laboratory managers to ensure that safety instructions are applied, particularly as regards presence in the laboratory outside working hours and days (Monday to Friday).

**Between 8:00 p.m. and 7:30 a.m. on working days, and at all times outside working days, all persons working in the laboratory must be accompanied by at least one other person on the laboratory premises.**

Under these conditions, please register at least the day before on an attendance list available from the secretary's office.

Yours sincerely,

**Stéphane SAVARY,**  
Laboratory Manager



Téléphone : 03 80 39 62 37 - Télécopie : 03 80 39 62 50

<https://bioperoxil.u-bourgogne.fr/>