

# WELCOME BOOKLET

This booklet is intended for all newcomers to MIVEGEC

It aims to introduce you to the unit, how it works, and to aid you in your efforts



## **Version 2020**

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## **Cover pictures :**

© IRD - Patrick Landmann - Etudes des virus en laboratoire, Vectopole

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# Introduction

The full welcome booklet is also available at the following link: [www.mivegec.ird.fr](http://www.mivegec.ird.fr)

The UMR MIVEGEC (Maladies Infectieuses et Vecteurs : Ecologie, Génétique, Evolution et Contrôle / Infectious Diseases and Vectors: Ecology, Genetics, Evolution and Control) aims to better understand the evolution of infectious systems and contribute to improving their control through integrative and transdisciplinary research focused on the genetic and non-genetic mechanisms determining pathogen maintenance, amplification, and transmission.

## Key Issues

Global environmental changes arising from human activity are now reaching unprecedented levels: population growth, deforestation, urbanization, intensive and extensive agriculture, climate, and globalization of trade in goods and people are disrupting the earth's ecosystems at all levels.

These changes create new environments in which vectors, hosts and pathogens must adapt. The destruction of certain habitats and the creation of new ecological niches alter the interactions between these three actors and favour the emergence or re-emergence of many human pathogens.

Disease epidemiology has been disrupted, and a better understanding of the mechanisms and conditions of pathogen transmission and evolution is necessary to develop new strategies and tools for control.

## Scientific strategy

The unit's original thematic focus on the Evolution of Infectious Systems places MIVEGEC at the interdisciplinary interface between Health and Environment, Biology and Medicine, and Ecology and Evolution, with applications concerning the control of infectious diseases and their vectors, the management of biodiversity, and the functioning of ecosystems.

# A word from the director

Dear fellow,

I wish to welcome you to UMR MIVEGEC and I hope that your stay with us will be for the best and to our mutual benefit. This is the purpose of this 'welcome booklet' intended to provide the keys for your smooth integration into your new work environment. Read it and keep it handy, as it contains all the necessary information and useful contacts you might need during your stay with us.

MIVEGEC is an extremely dynamic Joint Research Unit (IRD, CNRS and University of Montpellier), multi-site and multidisciplinary. It is a melting pot where researchers, professors, technical staff, students and interns of all nationalities and all origins interact, all driven by the same desire to push back the frontiers of science and knowledge. Take advantage of this excitement and diversity to make your stay in the Unit a highlight of your scientific career!

The research that we develop and that we will develop together touch on particularly sensitive issues, at the interface between environment and health, and we must be exemplary in the way we conduct and promote it, within the scientific community and beyond, towards the society. Scientific rigor and integrity must remain your priorities, just as much as respect for colleagues, whatever their status, and for the facilities and equipment that we make available to you. I do trust that you will endorse and uphold these principles and values, which guarantee and perpetuate the credibility of our scientific achievements, as well as foster good practices and attitudes in our offices and labs.

I wish you an excellent stay with us and look forward to the results of our collaboration.



**Frédéric SIMARD**  
*Director of the MIVEGEC Unit*

# Welcome

You have arrived in the UMR MIVEGEC, a joint research unit of the IRD (Institut de recherche pour le développement / Institute of Research for Development), the CNRS (Centre National de la Recherche Scientifique / National Centre for Scientific Research), and the University of Montpellier. Whether you are joining the unit as permanent staff, a CDD, or for research training as part of a Master's internship or thesis, we welcome you: Bienvenue!

The purpose of this booklet is to help with your integration into the unit. The book establishes our commitment to excellence as well as health and safety rules that you must be aware in your daily activities. The booklet is a work in progress, and we are open to your comments for improvement. Here you will find practical information on life in and organization of the laboratory. Please read the booklet carefully and do not hesitate to ask questions if something is unclear.

We ask that you pay special attention to rules of safety and security in the lab. For many of you, these rules will be reminders, but it is essential to take note of them and remember to continue to work in the best conditions.

## **This booklet will give you information on the organization and functioning of the unit.**

Once you have read it, please provide the person who will be in charge of your reception the signed form found on the last page, certifying that you understand and are ready to apply provisions set out in this booklet.

## **You may also read the unit's internal security regulations (règlement intérieur, RI) on the MIVEGEC intranet.**

You must submit the signed and dated certificate of awareness of the RI to the AP (the prevention assistant, i.e., health and safety officer) upon arrival.

The IRD's general rules of procedure and those of the Occitanie IRD Delegation



# Access to the regional delegation IRD Occitanie MIVEGEC

## Our address:

911, avenue Agropolis  
BP 64501  
34394 Montpellier cedex 5  
France  
Home - Tél. : 04 67 47 61 00 / Fax : 04 67 47 63 30

## Getting to MIVEGEC:

### **From Saint-Roch SNCF or Montpellier Sud train stations: by Tram + Shuttle:**

From the Gare Montpellier Sud de France, take the shuttle to the Place de France.  
Take tram line 1 (direction Mosson) to the «Saint Eloi» stop (From Saint-Roch, access to tram line 1 is directly in front of the gare).  
Cross the street to take the shuttle «Agropolis-facultés» to the «Campus Agropolis» stop.

### **From Montpellier Méditerranée Airport: by Tram + Shuttles:**

From the airport, take the shuttle to Place de l'Europe  
Take tram line 1 (direction Mosson) to the «Saint-Eloi» stop.  
Cross the street to take the shuttle «Agropolis-facultés» to «Campus Agropolis».

### **By car (A9 motorway to Spain):**

#### GPS coordinates :

43°38'42.7"N 3°52'02.3"E  
43.645189, 3.867305  
<https://www.google.fr/maps/@43.6446228,3.8686486,17.25z>



## Your assignment to Montpellier

For any assignment to Montpellier (fixed-term contract, intern), an installation report must be established on the day of your arrival. The report will be signed by the Director of the Unit (Frédéric SIMARD, office 123) and established to the «Human Resources» department DRO.

When you arrive, the reception manager for new entrants will give you the welcome booklet, the «validation of skills» sheet, and the «Satisfaction survey for non-permanent staff» sheet. Depending on the activities that you will be required to carry out during your reception, and if authorizations have not been previously granted, you will be given special authorizations for access to premises at risk (animal rooms, level 2 and / or 3 laboratories , insectarium).

## Interns

If you are arriving for an internship, you must have your administrative reception file complete with the required documents. For any question relating to your administrative reception, you can contact [accueil-mivegec@ird.fr](mailto:accueil-mivegec@ird.fr).

## **Welcome Booklet and Documents**

You must read this welcome booklet in its entirety and then sign and return the certificate found at the end of the document to the person responsible for welcoming new entrants.

The “skills validation sheet” will be returned to your technical supervisor(s), where it will then be completed and signed by your supervisor (s), and returned within one month to the person in charge of reception.

The «Satisfaction survey for non-permanent staff» must be completed and signed at the end of the course and returned to the reception manager who received you when you arrived.

## **Confidentiality**

The Unit has a mode of operation that links it closely to private companies or laboratories of other institutes through research agreements. **The information gathered during the internship remains the property of the IRD and remains strictly confidential until it is made public. The confidentiality agreement you have signed commits you to respect these rules.**

## **Dissemination of projects or results**

No document relating to work projects or mentioning results obtained during the intern’s stay may be distributed outside the laboratory on the intern’s initiative. Obtaining the formal agreement of the internship manager for dissemination is a necessary step.



## Locations

The Montpellier laboratory is the main location of the UMR MIVEGEC. The Unit brings together around 120 researchers, teacher-researchers, engineers, and technicians from IRD, CNRS, and the University of Montpellier, spread over ten countries around the world ([www.mivegec.ird.fr](http://www.mivegec.ird.fr)).

## Components

The unit is home to the WHO (World Health Organization) collaborating center for the evaluation of insecticides in public health, and also hosts the National Reference Center on Leishmaniasis (CNR Leishmaniasis, on the Montpellier CHU website), the CNR Toxoplasmosis (LA-Pole Biologie Molleculaire), and the Center for Research in Ecology and Evolution of Health (CREES).

## Scientific Departments

**The UMR is structured into 5 scientific departments, composed of 14 complementary research teams:**

**DS1 : Processus Ecologiques et Evolutifs au sein des Communautés (PEEC) (Ecological and evolutionary processes within communities)**

**DS2 : Pathogènes, Environnement, Santé Humaine (EPATH) (Pathogens, Environment, Human Health)**

**DS3 : Evolution des Systèmes Vectoriels (ESV) (Evolution of Vector Systems)**

**DS4 : Perturbations, Evolution, Virulence (Disturbances, Evolution, Virulence)**

**DS5 : Biologie des infections virales: Emergence, DIFfusion, Impact, Contrôle, Elimination (EDIFICE) - Biology of viral infections: Emergence, Diffusion, Impact, Control, Elimination (EDIFICE)**

## Schematic of the Unit's Organisation

You can find the organizational schematic on the MIVEGEC intranet.

## Sites and tour of the facilities

The unit is located across several locations: i) the IRD Délégation Occitanie center at 911 avenue Agropolis, ii) on the premises of the PAÎRE building (Lavalette), and iii) and at the CHU Montpellier (Parasitology / Mycology and Bacteriology laboratories). At the center IRD, in addition to offices on the ground floor, the UMR includes most of its laboratories in zone 6 (on the 2nd floor), a laboratory in zone 5 (on the 1st floor), 3 laboratories on the ground floor, and at the Vectopôle.

Your work will be done in one of these locations, and also, depending on your activities, in the BET (ethidium bromide) room (614), the L1 and L2 laboratories, the B2 laboratory (619), or in the biosafety level 2 and 3 laboratories of the Vectopôle. Access to these locations requires specific authorization, training, and in some cases, medical checks. You should check with your manager.

At the Occitanie delegation center (the main location of the unit), the activities are distributed as follows:

211 : Hydra

212 : Blade collection

213 : Adult collection  
509/510 : Proteomics  
603 : Multiple activities  
608 : DNA and RNA extraction  
610 : PCR mix preparation  
612 : DNA deposit  
614 : Agarose gel electrophoresis (! restricted access !)  
618 : PCR machines, qPCR, sequencer, PCR station  
619 : B2 bacteriology laboratory (! access regulated !)  
625 : Taxonomy; diagnostic room  
L1 : cell cultures  
L2 : cell and parasite cultures (! access regulated !)  
Vectopôle : insectariums I1, I2, I3 ; insecticide tests (! access regulated !)

A tour of the premises is guaranteed on your arrival by the PAs (Prevention Assistants or health and safety officers). They will explain to you the potential risks incurred during your work and measures to protect you and others in the laboratory (i.e., good laboratory practices). They will inform you of your rights and duties and provide you with the procedures to follow in the event of an accident.

Do not hesitate to ask as many questions as necessary to ensure your understanding of the health and safety rules.

### Quality Assurance

At the Montpellier site, the UMR MIVEGEC is committed to the highest quality standards and is certified according to the international standard ISO 9001: version 2015 (ISO: International Standard Organization) until December 2022. For all questions, please contact the quality manager: [marie.rossignol@ird.fr](mailto:marie.rossignol@ird.fr)

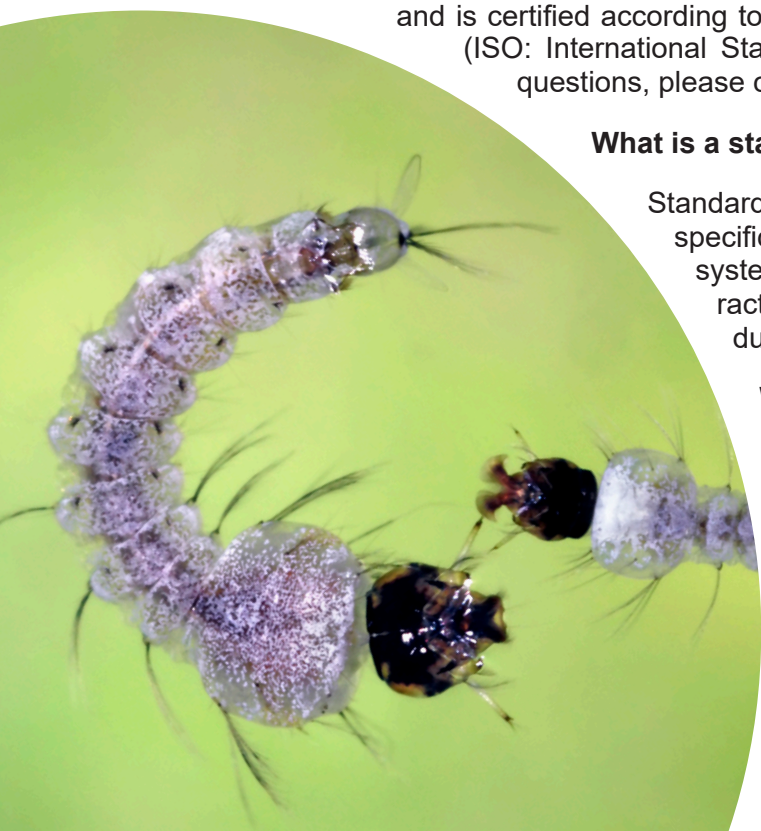
#### What is a standard?

Standards are documented agreements containing technical specifications or other specific criteria intended to be used systematically as rules, guidelines, or definitions of characteristics implemented to ensure the quality of products, processes, and services.

#### What is ISO 9001?

ISO 9001 is an international standard specifying the requirements for the quality management system. An organization has to demonstrate its ability to regularly supply a product meeting customer and applicable legal and regulatory requirements.

It aims to increase customer satisfaction through the effective application of the system and continuously improve it.



# Laboratory Life

## Work Hours

The legal opening hours of the Occitanie regional delegation are between 7:00 a.m. and 8:00 p.m. Monday to Friday, and 7:00 a.m. to 2:00 p.m. Saturday.

Access outside legal opening hours requires authorization, which is only granted for essential work (laboratory manipulations, maintaining the survival of living material, etc.) that cannot be carried out during opening hours. The presence of the trainee's supervisor is required when working outside the Centre's legal opening hours. The supervisor incurs responsibility in the event of an accident or damage to equipment, and their name and telephone number must be indicated on the request form. The form is found on the intranet of the Occitanie regional delegation.

Access requests outside of legal hours must remain exceptional. They are signed by the Director of the Unit (or, in case of absence, by a person with relevant authority). All requests must be left at the IRD reception desk on Friday before noon, at the latest. They are then given to the health and safety office and then sent to the Direction of the Occitanie Regional Delegation of the IRD (or its representative) for approval and signature. [The form is available on the intranet](#).

## Absences and leaves

For IRD employees, requests must be made under software SAP. They are validated by the Unit Director or the secretary, depending on the delegation.

For CNRS employees, requests must be made under software AGATE. They are validated by the Unit Director or the secretary, depending on the delegation.

For trainees, a completed absence notice must be signed by the trainee and the DU and given to the receptionist. This form is available on the MIVEGEC intranet in the home folder.

## Facilities

At the end of the day, everyone must ensure that the rooms' windows where they have worked are closed. The last person to leave the premises must turn off the lights and check that all doors and windows are closed.

## Miscellaneous supplies

Office supplies (pens, file folders, binders, etc.) can be requested from the secretary (offices 125 and 126).

## The phone

The center's main telephone number is 04 67 41 61 00

## The mail

Incoming mail is placed in a locker reserved for the Unit. It is then picked up by the assistants and sorted into the research team cabinets in front of office 125. Outgoing mail must be registered. Postage costs are supported by the Unit for professional mail only. Personal mail can be sent provided the sender prepays postage.

## Photocopies / theses

At the Occitanie regional delegation, copiers are available to staff on each floor. Near each copier is a reserve of paper. Copying and binding theses and internship reports can be taken care of by the laboratory, depending on the nature of the internship. They are carried out by a professional. Your internship manager must sign a completed order form.

**Photocopies should be made sparingly.**

## Bibliographic research

The IRD Documentation Service (extension 61 37 or [documentation.mpl@ird.fr](mailto:documentation.mpl@ird.fr)) provides all staff access to many paper-format journals.

Bibliographic searches can also be carried out on the internet by connecting to Medline or similar databases from the researcher's office <https://www.mpl.ird.com/documentation/office.html>. An IRD mailbox or account is essential for online consultation.

## The laboratory notebook

Everyone doing laboratory manipulations must have a laboratory notebook. Notebooks are requested from either Marie ROSSIGNOL (office 134) or Sylvie CORNÉLIE (office 134).

A notebook is given to you by your supervisor at the start of your internship. It is the trainee's responsibility to have their laboratory notebook regularly signed by their supervisor. The laboratory notebook can be checked at any time by the Unit Director, or by any other person so authorized.

The laboratory notebook is the property of IRD and is given to your supervisor at the end of your internship. You can, however, make photocopies of your notes or assignments.

## Lab Coats

Anyone handling material in the laboratory must wear a lab coat. Lab coats can be requested from Sylvie Cornélie (office 134), Déborah Garcia (office 330) manages the IRD building; and Céline Arnathau, who manages staff based in the PAÏRE building.

## Internship report

All trainees must give a copy of their report to their supervisor.

## Computing

The need for a formal request to open an IRD account has been dissolved.

Requests are now made online by the employee requesting an account: <https://compte.ird.fr>. By default, the person in charge of receiving new employees (directors) receives the request to then validate or reject.

Consider making regular backups of written documents and data generated during your work. External hard drives dedicated to data backup are available in each team.

## Orders

For any order of laboratory products or materials, the agreement of a scientific manager is essential. You need to bring orders to the people in your research team who are registered as a «buyer.»

Due to a lack of space, stocks are limited. If you find that a product is running low, trigger the pur-

chase request immediately.

## Missions

For any mission request, the agreement of a scientific manager is essential. You need to contact your scientific team's administrative manager so that they can tell you the procedure to follow, depending on the origin of the funds to be used and institutional supervision.

## Access / Meal Card

You are given an access/catering card upon arrival. This card allows you to access the premises and the restaurant at the IRD center.

The card must be returned to the restaurant cashier on the day of your departure. Any funds remaining on the account are returned to you. The restaurant is open from 11.45 a.m. to 1.45 p.m.

## At the end of your stay in the Unit

When your stay with us ends, before you leave, remember:

1. Clean and tidy up your workstation. In particular, dispose of everything that must be thrown away, including material in refrigerators and freezers (+ 4 °, -20 °, and -80 ° C).
2. Items to give your internship manager:
  - Your lab coat with its pockets emptied
  - The laboratory notebook(s) and information on where computer data is stored;
  - Any documents loaned to you (bibliography, procedures, etc.);
  - Any equipment that has been entrusted to you;
  - An inventory of the products you have used, clearly identifying the products remaining in the lab and specifying their location. You can ask a prevention assistant (PA, i.e., the safety officer) or your supervisor for help.
3. Give the completed satisfaction sheet for non-permanent personnel to the scientific receptionist
4. Return your access/catering card to the canteen.



# Health and Safety

The activities of the laboratory involve certain risks regarding the handling of specific products. We ask you to read carefully and comply with the health and safety rules and the instructions for using these products.



## SUPPORT PERSONNEL

In the field of safety in the laboratory, people are there to help you, guide you, and provide you the information you need when you arrive.

- **The PAs (Prevention Assistants, i.e., health and safety officers) in the laboratory :**

**Arnaud BERTHOMIEU, extension 6373**

**Cécile BRENGUES (waste manager), extension 6189**

**Déborah GARCIA (waste manager), extension 6461**

**Davy JOLLE, poste 5185**

**Marie ROSSIGNOL (waste manager), extension 6393**

**Patrick DURAND, PAÏRE building**

**Michèle LEFEBVRE, CHU La Colombière**

Their role is to advise, educate, and inform staff about good laboratory practices, ensure compliance with safety rules, welcome new arrivals, and organize the sorting and disposal of waste.

They work in close collaboration with the Center's Prevention Advisor, under the supervision of the Unit Director.

- **Health and safety counselor (Conseillère de prévention) of the center :**

Sabrina DESSERME, extension 6319, or by email at [hs.montpellier@ird.fr](mailto:hs.montpellier@ird.fr)

The role of health and safety counselor is to provide advice, training, and information. She coordinates the PA network, helps with the creation of files (GMOs, radioactivity, animal facilities, etc.), visits laboratories, inspects workstations, and participates in investigations in the event of an accident.

- **First Aid Rescuers at Work (SST: Les Sauveteurs Secouristes):**

The list of SSTs is found on the MIVEGEC intranet

In the event of an accident or incident, the SST is trained to take appropriate actions. They are responsible for the organization of first aid on site.

Anyone can aide an SST on the strict condition of remaining under their direction.

**- The occupational health and safety doctor at the center :**

Prevention doctor, extension 6121

Sylvie FRANCHET (medical assistant), extension 6122

Their role is to prevent any deterioration of an employee's health arising from work.

The occupational health and safety doctor is, therefore, not consulted for care or check-ups unrelated to work. The physician is bound by professional secrecy.



# Occupational Health and Safety Register (OHS)

## Article 47

The Health, Safety, and Working Conditions Committee (CHSCT) takes note of observations and suggestions relating to the prevention of occupational risks and the improvement of working conditions. These are recorded in the occupational health and safety register (le registre SST), which must be made available in each unit to agents and, where appropriate, users.

## Decree 82-453, amended by decree 95-680

«Hygiene, Safety at work, and preventive medicine in the public service.»

The SST registers are found with the prevention assistants and are available to all staff (staff, contract workers, students, trainees).

You record in the register any accident or incident occurring in the laboratories where you are required to work and in the IRD center in general (burns, intoxications, inhalations of toxic products, skin problems, falls or slips ... )

You can report malfunctions, anomalies, problems related to the work or training environment (encumbrances, temperature, noise, etc.), the presence of dangerous products or equipment, safety issues (various electrical problems, faulty gas supply, etc.), or issues concerning the working environment (state of the premises, dilapidated facilities, etc.).

Any suggestion relating to the prevention of occupational risks and the improvement of working conditions is also recorded.

The AP monitors entries in the register.

Next to each entry, the Unit Director signs and then adds, if possible, an answer to the problem.

At each CHSCTS meeting, all registers are examined.

In addition, the registers can be consulted by Health and Safety inspectors during audits of the Center.





# Register of Serious and Imminent Danger

## The Right of Withdrawal

### Regulation

«If an employee has **reasonable grounds to believe that their work situation poses a serious and imminent danger to their life or health** or if they find a defect in the protection systems, **they shall immediately inform the administrative authority thereof.**

No sanction, no deduction of wages may be taken against an employee or a group of employees who have **withdrawn from a work situation** of which they had reasonable reason to believe that it presented **a grave and imminent danger to the life and health** of each of them.

The administrative authority cannot ask the employee to resume their activity in a work situation where a serious and imminent danger persists «

### Article 5-6 of decree 95-680

### Indications of serious and imminent danger

- **Situations capable of causing a direct threat to the life or health of the person.**
- **Danger likely to cause an accident leading or causing illness or severe damage to physical integrity or death**
- **The imminent nature of the danger implies that an event may occur in the near future, almost immediately**



### Alert procedure

In the event of serious and imminent danger, the employee may use their right to withdraw; they then immediately inform their department head and a member of the competent CHSCT.

An investigation must be carried out on the spot in collaboration with the CHSCTS to consider the emergency measures to be implemented.

A dangerous incident report must be recorded by the employee in a special register, which is found at the center's reception desk

# Single Risk Assessment Document

The Single Risk Assessment Document (Document Unique d'Evaluation des Risques, DUER) lists all the **risks identified in each work area of the Unit** :

- environmental risks
- thermal risks
- electrical risks
- fire risks
- chemical and biological hazards
- corporeal risks
- psychosocial risks (stress, feelings of discomfort, harassment, incivility, aggression at work, etc.)

This inventory, which is updated annually, also considers the number of staff working in each area and the collective and individual means of protection available to them.

Following this evaluation, the Director of Unit implements preventive measures and working methods, ensuring a better level of health and safety protection for their staff.

In practice, it is the laboratory PAs, with the agreement and under the responsibility of the Unit Director, who carry out this evaluation and the updates of the DUER.

This document is then submitted to the Unit Council for validation.

Once validated by the Unit Council, the DUER is made available to all. A copy can be consulted on the notice board in front of office 125 (ground floor) and on the unit's intranet in the Health and Safety section.



# Focus on psychosocial risks

Psychosocial risks are defined as a risk to the physical and mental health of an employee. Their causes may stem from employment conditions, factors related to work organization, and labor relations.

Psychosocial risks lie at the junction between the individual and his or her work situation.

## Several types of risks can be distinguished:

- Stress arising from the feeling of not meeting demands or expectations;
- internal violence committed by workers: major conflicts, moral or sexual harassment;
- external violence against employees by persons outside of the organization;
- burn-out syndrome.

These psychosocial risks can be combined and interact with each other. For example, a situation of internal violence and stress in one employee can lead to other tensions with the rest of the team, causing widespread stress in the organization.

The prevention of psychosocial risks is part of the general obligation to protect workers' physical and mental health.

The employer also has an obligation to prevent moral and sexual harassment, which are considered forms of violence at work and are among the psychosocial risk factors.

## What signals might alert you:

- stress
- feeling unwell or in pain
- harassment
- incivilities
- workplace aggression
- comments that are racist, homophobic, sexist,...



## Your interlocutors :

Whether you are a witness or a victim of a difficult professional situation, multiple interlocutors at the IRD are available to listen to you and support you:

- The unit's prevention assistants (see contact details above)

They work as close to operations as possible and contribute to the awareness and training of personnel in risk prevention.

- Prevention Counsellor (Sabrina Desserre - ext. 6319)
- Prevention doctor ( extension 6121)

This health professional's role is to prevent any deterioration in the health of employees due to their work, and is bound by professional secrecy. They can put you in touch with multidisciplinary health services that includes psychologists and ergonomists.

- The psychologist

A psychologist outside the IRD will be able to listen, observe, evaluate, and advise. Their intervention ranges from a simple interview to more complex and long-term support.

- The Social Counselor (Bernadette Cairo - ext. 6386)

The social counselor provides an entry point for psychosocial support, guaranteeing anonymity and confidentiality. They will work with you to improve your work-life balance and consider possible solutions.

- Your supervisor

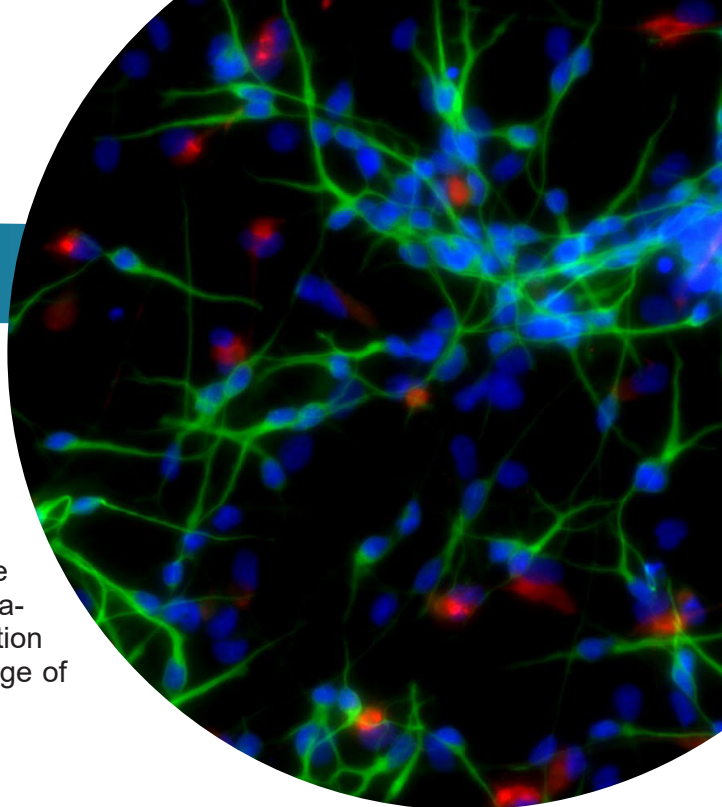
Being familiar with the activity of the personnel, the immediate supervisor (head of department, team leader, etc.) can analyse troublesome situations and put in place measures to improve the situation.

- The Head of Human Resources (Mague-lonne Nalet Martin - extension 5192).

She is your main point of contact for addressing your professional situation.



# Room and Equipment Coordinators



## Missions of the room and equipments coordinators

### 1.1. Room Coordinators

Each pair of coordinators will be appointed for one year. However, the period is flexible, and the coordinators may ask to change in certain situations (cessation of use of the room, conflicts, fatigue, etc.). The change of coordinator must be quick.

#### Mission :

- the coordinator is the main contact for users
- they have information about the room's equipment and operation
- they monitor and ensure the the smooth operation of the room.
- they organise the room in collaboration with the users to maintain good working conditions (e.g., tidying or cleaning of the benches if necessary, etc.).
- each new user or their manager must inform the coordinator of any changes to the room.

#### Duties that are not the responsibility of the coordinators :

- the coordinators are not at the service of the users. They do not have to clean and tidy up for them.
- if a piece of equipment no longer works, depending on the situation, the coordinator either gives the users information to have it repaired, contacts the people in charge of the equipment (-20°C for example), or they have it repaired.
- The coordinator doesn't have to adopt the role of enforcer. However, in case of a problem, they can either solve the problem directly in a diplomatic manner at their convenience. Otherwise, they can bring the issue to the attention of the project or team leaders, or contact the logistics group who will convene the users to solve the problem.

### 1.2. Equipment Managers

Equipment managers must monitor the proper functioning of the equipment, organize maintenance, and organize repairs in the event of a breakdown. A maintenance sheet is drawn up for each piece of equipment and can be found on the resource portal.

**In the event of a severe problem requiring immediate attention (i.e., breakdown, the disappearance of equipment, etc.), please contact the person in charge of the room concerned (their name is indicated on a sign posted on the front door of each work station).**

# Prevention in the laboratory

**All laboratory personnel have both moral and legal responsibilities towards other personnel using the laboratory**, including those who, in one way or another, could «suffer» the consequences of their bad practices (cleaning staff, for example).

**All experiments include the correct sorting of waste and the cleaning of working surfaces.**

The following is a list of actions and behaviors that you can take to keep yourself and others safe.

## **Before entering the laboratory :**

- study your operating protocol to analyze the risks and choose the precautions to take;
- wear a lab coat (provided by the center) and prepare the other PPE (Personal Protective Equipment);
- find out about any special safety instructions.

## **At the bench:**

- do not drink, eat, or store any food or drink in the laboratory; do not mouth pipette.
- do not handle personal equipment (e.g., mobile phone, earphones) with your gloves.
- use the EPC (Collective Protection Equipment) if necessary, and the PPE required for your manipulation;
- organize your workspace without cluttering up areas of passage;
- read the label on chemical bottles;
- carefully label any solution you may have to prepare (name of the solution, date of preparation, your name).

## **After manipulation:**

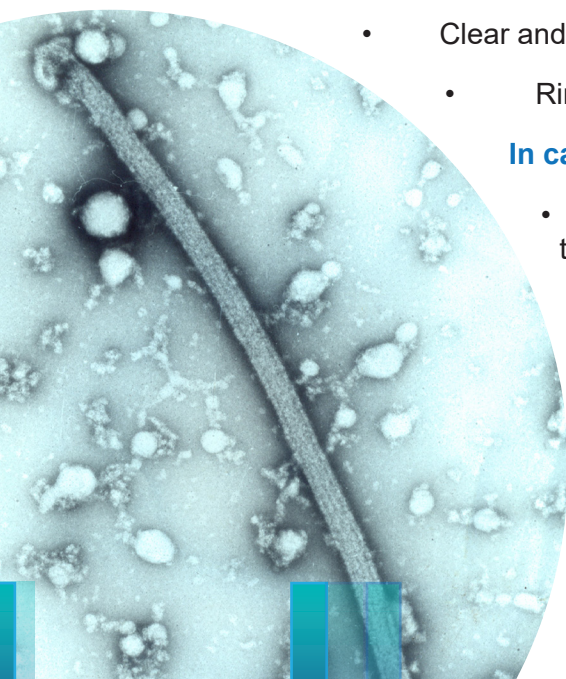
- dispose of your waste in the appropriate bins; empty the trashcans if they are full; fill the boxes with pipette tips and tubes you have used; replace the glove boxes if you have taken the last ones; and more generally, check the stock of material (gloves, tips, tubes, ...) and restock if necessary;
- Clear and clean your work surface (bench, fume hood);
- Rinse your dirty labware and place in the dishwashing system.

## **In case of malfunction or inactivity :**

- record the malfunction in the logbook where the malfunction took place and inform room coordinator.

## **In the event of an accident or incident :**

- notify the PA and your supervisor;
- record the accident/incident in the SST logbook.



# Personal Protective Equipment (PPE)



Safety begins first with collective protection equipment (fume hood, fume cupboard,...). At the same time, PPE is made available to personnel who must receive information and training on their use.

## The different PPE

- **The lab coat (blouse)**

The lab coat is reserved solely for the lab and must be worn for all laboratory activities. It should be made of cotton and have long sleeves to protect the forearms. You must keep it closed during your manipulations. It is provided to you by your host laboratory, which ensures its washing and maintenance.

- **Gloves**

There are no universal gloves, and durability diminishes over time. There are different types of gloves (latex, nitrile) appropriate for the variety of products handled. Check that gloves are free of any defect before using them. Remove them if you need to pick up the phone or handle a doorknob, for example. When removing your gloves, avoid touching the outside of the gloves and always wash your hands thoroughly after use.

- **The safety goggles**

Safety goggles should be worn when there is a risk of splashes or aerosols. Eyeglasses are not protective eyewear. Suitable filter glasses or visors should be used when handling UV.

# Chemical risks

## The PA will be able to tell you

Where to find the MSDS (Material Safety Data Sheets, the FDS, Fiches de Données de Sécurité) of the products and how to use them

How to Read Chemical Bottle Labels

How to use collective protection equipment

What PPE is required

Where and how to store chemicals

How to sort and dispose of chemical waste

## CMR products (Carcinogenic, Mutagenic, Toxic to Reproduction)

The labels of these products contain the following R phrases: R40, R45, R46, R49, R60, R61, R63, R64, and R68.

The use of CMRs requires compliance with specific provisions such as exposure assessment, limitation of quantities used and personnel exposed, training and information to users, enhanced medical surveillance, etc.

CMRs are classified into three categories corresponding to decreasing levels of risk: from category 1 (known carcinogen) to category 3 (possible carcinogen).

## The chemical label and the MSDS (Material Safety Data Sheet, or FDS)

- Product labelling :

**Pictograms**

The red frame is mandatory

**Danger Warnings**  
additional information

**Name of substance or mixture**

**Formula, information...**

**Other information**  
(CAS, EC, manufacturer...)

**Specification**

See catalogue for detailed specification  
CoA available on request from Fisher Scientific

Specification	Limit
Acidity/alkalinity (meq/g)	<= 0.001 meq/g
Assay (GC)	>= 99 %
Calcium (Ca)	<= 1 ppm
Colour	<= 10 APHA
Copper (Cu)	<= 2 ppm
Iron (Fe)	<= 10 ppm
Lead (Pb)	<= 5 ppm
Magnesium (Mg)	<= 1 ppm
Potassium (K)	<= 5 ppm
Residue after evaporation (ppm)	<= 5 ppm
Sodium (Na)	<= 0.005 %
Substances reducing KMnO4	<= 0.5 %
Water	<= 1 ppm
Zinc (Zn)	<= 1 ppm



- The MSDS (FDS)

(! Not to be confused with the data sheet!)

The MSDS is a tool enabling the user of a chemical product to analyze the hazards and risks associated with its use and to draw up rules for the prevention and protection of personnel likely to be exposed.

According to the labour code, the MSDS must include 16 mandatory headings.

Ex : Heading 2 = information on constituents.

Rubrique 7 = storage precautions.

Rubrique 14 = transport information.

### **Risk statements (phrase R)**

Indicate the nature of the risks involved in using the product (handling, contact, ingestion, inhalation, release into the environment).

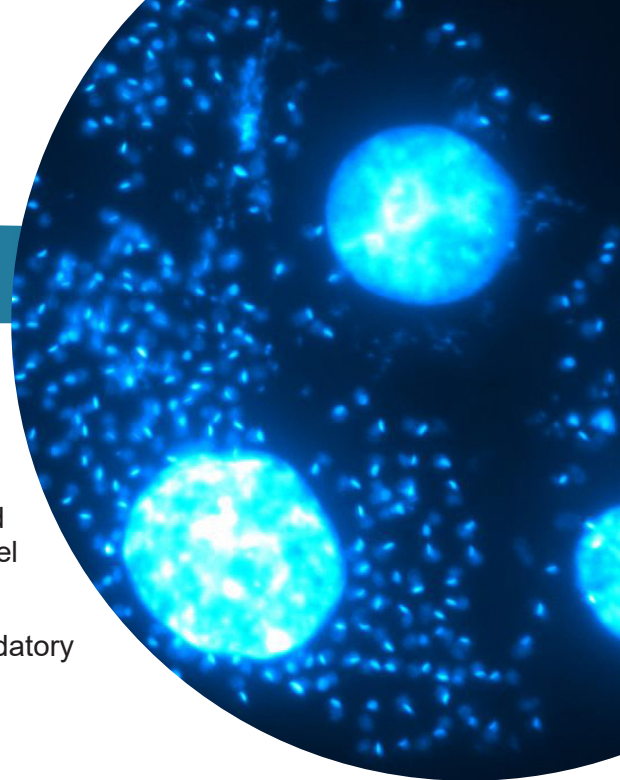
Some examples:

- R1: Explosive in dry state.
- R7: May cause fire.
- R10 : Flammable.
- R14 : Reacts violently in contact with water.
- R20 : Harmful by inhalation.
- R24: Toxic in contact with skin.
- R45 : May cause cancer.
- R51 : Toxic to aquatic organisms.
- R56 : Toxic to soil organisms.

### **Safety Statements (phrases S)**





Indicate the precautionary statements concerning the use of the hazardous substance. Some examples are :





- S9: Store in a well-ventilated place.
- S15: Keep away from heat.
- S24: Avoid contact with skin.
- S30: Never pour water into this product.
- S37: Wear suitable gloves.
- S49: Keep only in the original container.



NB : Each PA will be able to provide you with the complete list of R and S phrases, and safety data sheets (SDS, FDS), if required.

### Hazard pictograms (labelling is subject change)

SYMBOLE DEPUIS 2009	SIGNIFICATION	DESCRIPTION
	<b>SGH 01 explosive, autoreactive</b>	Liquids or solids capable of exploding under the action of shock, friction, flame, or heat
	<b>SGH 02 highly flammable, extremely flammable</b>	Flammable, pyrophoric, self-reactive, self-heating, emits gases, flammable in contact with water.
	<b>SGH 03 Oxidant</b>	Products that are an oxidiser, which could cause or contribute to the combustion of other materials.
	<b>SGH 05 corrosive, irritant</b>	Substances that are corrosive and could possibly burn the eyes or skin, and/or could destroy metals.

SYMBOLE DEPUIS 2009	SIGNIFICATION	DESCRIPTION
	<p align="center"><b>SGH 06</b> <b>Toxic, very toxic</b></p>	<p>Substances that are fatal, acutely toxic, or harmful depending on exposure. Exposure may be through oral, dermal, and/or inhalation.</p>
	<p align="center"><b>SGH 07</b> <b>irritant</b></p>	<p>Substances harmful by oral, dermal, and/or inhalation exposures, skin and/or eye irritants, skin sensitizers, harmful from acute exposure, narcotics, irritants to the respiratory tract, or hazards to the ozone layer.</p>
	<p align="center"><b>SGH 08</b> <b>Health Hazard: toxic, very toxic, harmful, irritant</b></p>	<p>Substances present that can cause cancer, genetic mutations, interferences with reproduction, hypersensitivity of airways, toxic harm to the organs, or damage to the respiratory system due to aspiration.</p>
	<p align="center"><b>SGH 09</b> <b>Dangerous for the environment</b></p>	<p>A hazard for aquatic toxicity in the environment.</p>



### Good Laboratory Practice for Chemicals

- replace hazardous products with less hazardous products whenever possible
- use and give priority to collective means of protection
- wear appropriate PPE
- do not make unknown mixtures that may be incompatible, especially when collecting waste.
- choose to buy a product already in solution (BET, acrylamide)
- use a secure weighing station dedicated to weighing powdered chemicals hazardous to health, type SGH06 and SGH08. It is located in the Capmeditrop building on the ground floor Labo 1103 Proteins. Comply with the procedure described on the equipment and for any questions do not hesitate to consult the Prevention Assistant in the area.

### Storage of hazardous chemicals

Hazardous chemicals must be stored in specially equipped storage locations (solvent bunkers for large quantities). The amount of flammable products held in the laboratory is limited and they must be stored in ventilated safety cabinets. Poisons and toxic products must be kept under lock and key. Finally, products to be kept cold must be stored in secure refrigerators. Hazardous solvents are stored in 605 and 607.

# Waste Management


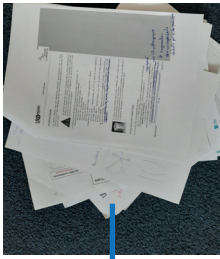








(Original Document source: Pôle HSQ/IRD Montpellier - Sabrina DESSERME)

**You must contact the waste managers**

Cécile BRENGUES, Marie ROSSIGNOL, Cécile CASSAN, Déborah GARCIA, Carole GINIBRE for disposal of any waste.


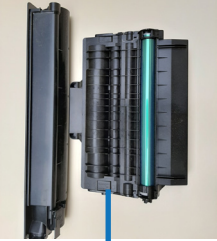




**Ordinary industrial waste**



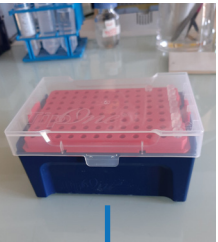



## Déchets banals/ Household waste

Déchet ménagers trash	Papier paper	Carton plié folded cardboard	Bouteille plastique plastic bottle	Bouteille en verre glass bottle
				
				







## Les déchets spéciaux/ Specific wastes

Piles Batteries Battery	Cartouche d'encre Toner cartridge	DEEE: déchets d'équipement électrique et électronique waste electrical equipent
		
		

Thermomètre à mercure mercury thermometer	Tubes néons Lampes à mercure neon light	Emballages de laboratoire valorisable non contaminé laboratory packaging uncon- taminated
		
		

## Les déchets biologiques/Biological waste

Matériels ou contenants utilisés/souillés materials or containers used/contaminated	
	
	

**Needle boxes**, are specially designed to hold sharp objects (pipette tips, scalpel blades, needles, glass Pasteur pipettes...).



**Yellow Bags** collect non-perforating solid waste (gloves, tubes, PCR plates, petri dishes, bench paper).


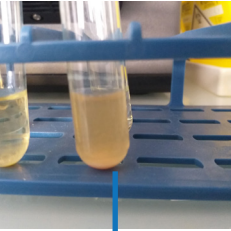



**Les Septopacks** : for large glass or plastic pipettes



**White buckets** : Reserved for the BET room. They are used to collect gloves, agarose gels, tips, tubes, papers, etc. When the bucket is full, close, and label it (unit, date, type of waste) before taking it to the chemical waste disposal room. "Intermediate" bins are located on the room's benches; they are reserved for the collection of used tips and tubes and should be emptied into the bucket at the end of a procedure.

**The keys to the chemical waste room can be found either at the reception desk or in the office of Baptiste Vergnes (302).**

## Les déchets biologiques/Biological waste

GMO and biohazardous waste from L2 and L3 animal laboratories of S2 and S3	Liquides contaminés biohazardous liquids
	
	<p data-bbox="890 1003 1182 1066" style="text-align: center;">traitement à la javel treatment with bleach</p>
	

### Liquid Waste

**Liquid waste from laboratories may present either a chemical or biological hazard. It is subject to regulation and cannot be thrown down the drain.**



Liquid waste can only be stored in the canisters issued by the company that collects it (never in the original packaging of the products). A stock of drums is available to laboratories in the room adjoining the corridor 'anglaise'.



**The classification of chemical waste is done in the following order:**

- 1) Separation of specific liquids = **BLUE** label
  - Environmental pollutants (bleach, ...)
  - Highly toxic waste (lead, ...)
  - Insecticides, pesticides
  - Highly reactive products
  - BET (downgraded CMR, indicate «BET aqueous solution»)
  - Resin
  
- 2) Separation by pH :
  - **YELLOW** label : acidic waste,  $\text{pH} \leq 4$  / organic acids are separated from mineral acids
  - **GREEN** label : basic waste,  $\text{pH} \geq 9$  / organic bases are separated from mineral bases
  - **RED** label : neutral non-halogenated waste / solvents, diluted methanol, ...
  - **ORANGE** label : neutral halogenated waste / Chlorine, Bromine, Fluorine, Iodine, ...





## The Electrophoresis room = BET

This room is common to the MIVEGEC and INTERTRYP units, and is restricted to users only.

Internal rules for the use of this room have been drafted and are distributed to all newcomers who may be required to work in this room. The rules are available on the MIVEGEC intranet.

## The L2 Laboratory

### RULES TO BE RESPECTED BY EVERYONE TO KEEP THE P2 CLEAN AND SAFE

**Managers :** Anne-Laure BANULS (office 303 / poste 6180)

Baptiste VERGNES (office 302 / poste 6308)

**Visits provided by** Déborah GARCIA (office 122 / poste 6461)

#### Internal Regulations

##### 1- Before entering the P2:

- \* MANDATORY even for fast entry/exit: Put on a special L2 gown, properly closed, protective over-shoes and gloves.
- \* Equipment at risk of contamination must be cleaned carefully with solasain (e.g. media or bottles from the cold room, pipettes, µtubes, etc.).
- \* Personal belongings must be left in the I2 airlock (keys, phone, pen, notebook... leave them in the L2).
- \* The two doors of the SAS must never be opened at the same time.

##### 2- In the P2 :

- \* Any malfunction must be reported either to Déborah GARCIA (AP) or to Baptiste Vergnes (L2 manager for Mivegec) and Anne-Laure BANULS (L2 manager at the IRD centre).
- \* To work under the PSM (the microbiological safety cabinet), gloves are mandatory.
- \* For defrosting strains (especially for *Trypanosoma cruzi*): a mask is mandatory and must be done in the PSM.
- \* For cloning strains: put on a mask and double glove pairs.
- \* Do not leave culture boxes lying around on the L2 benches. They must be put away in the incubators.

- \* Clean the PSM, incubators and water bath regularly.
- \* Respect the filling limit of the bins. Be careful not to puncture the bins with the pipettes.
- \* Culture waste must be bleached before being poured down the drain.
- \* Regularly check your media in the refrigerator. Any contaminated media should be bleached and discarded. Remember to report the presence of contamination in the room notebook.
- \* Do not use mobile phones in the L2. Go out into the SAS and remove the gloves.
- \* In the event of an accident, follow the recommendations posted in the L2.

### 3-Leaving the L2

- \* Remember to turn off all devices such as microscopes, the PSM, and the water bath before going out.
- \* No live parasites are to leave the L2 except for cryopreservation. For this, please transport your freezer boxes in polystyrene boxes.
- \* Remember to remove your gowns, gloves, and overshoes in the SAS.





# Vectopole - IRD platform

The mission of the Vectopole platform, located on the campus «IRD Delegation Occitanie», is to implement research activities focusing on the study of arthropod vectors and the pathogens they transmit to humans and animals.

It is composed of insectariums and laboratories with 3 containment levels (I1, I2 and I3), which correspond to the standard biosafety levels in research activities (BSL1, BSL2, BSL3).

## For more information :

A document specifying the platform terms of use is provided to all new Vectopole users. New users are trained by the Prevention Assistants (i.e. health & safety officers) of the different zones.



## Contact persons :

**Scientific Manager :** Fabrice CHANDRE (bureau 133 / poste 6399)

**Technical Manager :** Bethsabée SCHEID (bureau 134 / poste 6366)

**Prevention Assistant I1 :** Marie ROSSIGNOL (bureau 134/ poste 6393)

**Insectarium Manager :** Carole GINIBRE (bureau 134/ poste 6394)

**Scientific Referee I1 :** Fabrice CHANDRE (bureau 133 / poste 6399)

Anna COHUET (bureau 131 / poste 6323)

**Prevention Assistant I2 :** Arnaud BERTHOMIEU (bureau 171/ poste 6373)

**Scientific Referee I2 :** Ana RIVERO (bureau 171/ poste 6373)

Arthur TALMAN (bureau 352/ poste 6213)

**Prevention Assistant I3 :** Davy JOLLE (bureau 134/ poste 5185)

**Scientific Referee I3 :** Dorothee MISSE (bureau 170/ poste 6381)

Christophe PAUPY (bureau 133 / poste 6237)

## 1. Conditions of access and use of the platform

The use of the platform's resources is under the control of the Technical Manager according to the access conditions.

## 2. Platform access

To access the platform, you must fill an access authorisation to the levels I1, I2 or I3 according to the level of containment you need for your protocols - Access request document. Document is available on the IRD intranet or to be requested from the Technical Manager.

Concerning I3 access, a specific «Level 3 Work Authorisation» is also required to be validated with the medical doctor responsible for occupational health at IRD.

Document to be requested from the Technical Manager or the I3 Prevention Assistant.

### 3. Mailing list

All users are registered on the Vectopole's mailing list: [vectopole@listes.ird.fr](mailto:vectopole@listes.ird.fr). This list allows users to be informed of Vectopole news and events (maintenance, incidents or other event).

I3 users are registered on the Vectopole's level 3 mailing list: [i3-vectopole@listes.ird.fr](mailto:i3-vectopole@listes.ird.fr). This list allows users to be informed of specific I3 news (maintenance, incidents or other event).

### 4. Work hours of the platform

#### Work hours

Work hours for level I1 and level I2 are the same as those of the «IRD Delegation Occitanie» (see «Laboratory Life », p.9).

Work hours to level I3 are from Monday to Friday from 7am to 5.30pm for access of alone user. After 5:30 pm, users must be in pairs or imperatively ensure the presence on site of a member of their team (with I3 authorisation) until they leave the laboratory.

#### Access outside work hours

Outside these hours, you will need to make a specific request to access the platform : Request for access outside working hours. (see «Laboratory Life », p.9).



**If a user accesses the Vectopole alone, the wearing of a Lone Worker Protection System (PTI in french) is mandatory. The PTIs will be obtained at the IRD reception desk for access to level I1 (outside working hours for I1) and for levels I2 and I3 they are directly available in the respective access locks.**

### 5. Reservation of a climatic chamber or experimental room

Access to some of the equipments and experimental pieces should be reserved via <https://grr.ird.fr/montpellier/>.

A piece of equipment or a room may also be reserved in agreement with the platform's Technical Manager. The user must respect the time allocated to his reservation.

Repair or maintenance operations are given priority and will be mentioned as soon as possible on the user schedule or via the mailing list.

### 6. Request for biological material

All orders for mosquitoes from laboratory colonies must be done at least 1 week in advance for eggs, 2 weeks in advance for larvae and 3 weeks to 1 month in advance for adults, whatever the strain. Orders that will not respect these deadlines will be refused. Orders are to be sent by email to the person in charge of the insectariums or the person who replaces it when absent. For more information, please contact the Insectarium Manager or the Technical Manager.

# Fire Hazards

## To prevent the spread of a fire, everyone at their workstation must :

- Avoid disorder, carelessness, and negligence;
- Limit and store flammable products in flame retardant cabinets;
- Check the quality and avoid an excessive number of electrical connections on power strips;
- Unplug space heaters and turn off coffee makers in offices.
- Check the water levels of the water-baths in the evening if they must be left on all night and switch them off over the weekend.

## If you witness the start of a fire:

- Act quickly while remaining calm;
- Sound the alarm by breaking one of the red boxes in the corridors;
- If the fire is not too serious, and if you are trained in the handling of fire extinguishers, you may attempt to fight the fire with the appropriate fire extinguisher located in the corridor.
- If the fire cannot be brought under control, the general evacuation siren is activated automatically within 5 minutes of your having sounded the alarm;
- Evacuate the room by closing the door behind you; exit the building by the nearest emergency exit using the stairs (never the lift!)
- As soon as the firemen arrive, guide them and give them any useful information.



- Evacuer la salle en fermant la porte derrière vous ; sortir du bâtiment par la sortie de secours la plus proche en utilisant les escaliers (jamais l'ascenseur !)
- Dès l'arrivée des pompiers, les guider et leur donner toutes les indications utiles.

**If the building fire alarm sounds:**

- Immediately stop all activity
- Leave the room (office, laboratory) where you are by closing the windows and doors behind you
- Evacuate the building according to the queuing guidelines for the zone where you are and proceed to the assembly point in front of the greenhouses.

**SMOKING AND VAPING IS FORBIDDEN ON THE PREMISES (decree of 25 April 2017)**

# First aid in the event of an accident

## In case of a serious emergency :

- Secure the victim;
- Alert outside help by calling 15 from a landline or 112 from a mobile phone;
- Communicate the exact and complete address of the establishment, including the site, laboratory or office number, and floor;
- Provide a telephone number where you can be reached and never hang up first;
- Provide information on:
  - Number of injured;
  - Status of the victim(s);
  - Circumstances of the accident ;
  - Specify if there is a particular hazard (chemical, biological, gas);
- Notify a qualified on-site first-aid worker (the list of qualified personnel is displayed in front of the Vectopôle);
- Ensure or have someone else ensure the reception of paramedics to guide them to the scene.



Do not touch the victim(s) if you do not know what to do.

Do not give them anything to drink

## In the case of a minor accident :

- Notify an on-site first-aid worker, the prevention doctor, and the center's administration.





# MIVEGEC's green code

How to save energy every day and improve carbon footprint without declining the quality of scientific work? This code aims to give some advice in order to reduce the environmental impact of MIVEGEC with each of us participating.

## 1. Energy

### Office/Laboratory/Meeting rooms

I switch off the light when I leave or when the natural light is sufficient. I organise my workstation in a way I can take advantage of the daylight.

I switch off my computer and screen, I unplug any electrical appliances on stand by when I leave in the evening. I can use a multi-socket to make it easier.

### Air conditioning

During summer, in my office, I cool the rooms during the morning by opening the windows. I close the windows and lower the curtains as soon as exterior temperature is higher than inside.

I do not adjust the air conditioner to a set point lower than 8°C from outside temperature. I keep the windows and door closed when the air conditioner is on. During the evening, I switch off the air conditioner.

In the labs, the room managers adjust the air conditioner, I never touch it. I immediately report any dysfunction.

### Heating

When I leave in the evening, I set the heater at a lower temperature (-3°C) without switching it off.

I switch the heater off before ventilating the office. I clear the space in front of the heater to allow a good heat diffusion. I close the doors connected with no or poorly heated spaces (halls, stairs...).

## 2. Digital/internet/mailing/printing

I use as long as possible the appliances in my office. I do not buy new equipment on a basis of a predetermined lifespan.

I choose a reasonable compromise between energy and comfort with regard to the size/brightness of the screen. I set the automatic sleep mode of my computer/screen.

I choose light attachments (compressed files) or links (File Sender); I use bookmarks in my browser for the sites I consult frequently; I close the non-used tabs/bookmarks.

I do not use « reply to all » if my message interests only one or two people of the list.

I eliminate the data that I do not need. I empty regularly the waste of my mailbox as well as the "sent mails". I empty regularly the download folder.

### Paper

I print only what is necessary, preferably in black and white, double-sided.

I use the multifunction printers of the Institute, and I set them on sleeping mode once I have finished.

### 3. Trips

#### Meeting/Congress: how to decide:

- is it strictly necessary that I attend the meeting? Can I attend by videoconferencing ?
- I limit the number of congress each year, when they require a flight travel.
- I think about the equilibrium between the environmental impact / the time on site / the expected benefits for science or partnership.

On my return to the lab, I make my attendance to the congress profitable by giving an overview seminar.

#### Means of transport

For local travels, I use public transport, walk, car share or the lab's bikes (Païre).

I choose flight travel only when the train travel is more than 4 hours. I choose the economic class (IRD decision n°007255 of July 9th).

I encourage my visitors to make the same choice.

### 4. In the labs in Montpellier

#### Waste

I sort my waste: chemical, biological, electrical, paper and cardboard, household, clean plastic, battery, etc... as recommended by the Assistants de Prévention, Correspondants déchets, and as posted in the labs as well as next to the waste space (next to the Vectopôle).

I put the paper into the blue waste (IRD) and all the recyclable in the green waste (Païre).

In the lab, to limit the amount of waste:

- I use glass containers instead of disposable plastics
- I re-use disposable plastics (tips, tubes), as long as it has no impact on the quality of my work.

#### In the lab, to limit energy consumption:

- I switch off and unplug electrical appliances during the evening / the weekend when they are not in use (computers, PCR, hot-water bath, centrifuges...).
- I buy low consumption equipment, with reasonable lifespan.
- I de-ice regularly the freezers.
- I eliminate what I do not need anymore, to save space in the cold stock (fridges, -20°C, -80°C, and liquid nitrogen).

When possible, I order kits and consumables from responsible suppliers. I make a report on suppliers displaying bad practice (for example packaging) with an improvement form (<http://bioinfo-web.mpl.ird.fr/qhsmivegec/affichetteequipement/fichedeveieexistant.php>)

I choose reagents with the level of purity adapted to my need.

I take care of the shared equipment and report any dysfunction to the room managers.

## **5. Coffee**

In my office or at the coffee machine, I drink from a reusable mug instead of disposable cups.

**Thank you for your cooperation!**

**By following these tips, you will contribute to reduce MIVEGEC's carbon footprint.**

**Each small change can become a new habit and have a real effect.**

# Fiche pratique/Contacts

## Your contacts

### **MIVEGEC Secretaries**

BUREAU 126 : Audrey RAVAT      Tél : 04 67 41 63 79 - audrey.ravat@ird.fr  
                         Carine BINGAN      Tél : 04 67 41 61 97 - carine.bingan@ird.fr  
                         Julie PLA      Tél : 04 61 41 61 71 - julie.pla@ird.fr  
Bureau 125 : Valérie DELPLANQUE      Tél : 04 67 41 62 94 - valerie.delplanque@ird.fr  
                         Katia GRUCKER      Tél : 04 67 41 63 77 - katia.grucker@ird.fr

### **Prevention Assistants (Health and Safety Prevention Assistants)**

Cécile BRENGUES :cecile.brengues@ird.fr  
Marie ROSSIGNOL : Bureau 134 marie.rossignol@ird.fr      Tél : 04 67 41 63 93  
Déborah GARCIA : Bureau 330 deborah.garcia@ird.fr      Tél : 04 67 41 64 61  
Arnaud BERTHOMIEU : Bureau 171 arnaud.berthomieu@ird.fr      Tél : 04 67 41 63 73  
Davy JIOLLE : Bureau 134 davy.jiolle@ird.fr      Tél : 04 67 41 51 85

### **Training Unit**

Christel GRUAU christel.gruau@ird.fr Tél. : 04 67 41 61 25

### **Medical Service**

Prevention doctor      medical.dr-occitanie@ird.fr      Tél : 04 67 41 61 21  
Sylvie FRANCHET      sylvie.franchet@ird.fr      Tél. : 04 67 41 61 22

- SAMU (0) 15
- POMPIERS (0) 18
- POLICE (0) 17
- SOS MAIN (CHU Lapeyronie) (0) 04 67 33 85 46
- Centre antipoison (Marseille) (0) 04 91 75 25 25
- Accueil IRD 6100

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- Sylvie Cornélie 04 67 41 62 53 sylvie.cornelie@ird.fr

### Lab Notebooks

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- Jorian Prudhomme 04 67 41 63 48 jorian.prudhomme@ird.fr

### Book a room online

GRR lien suivant [https://grr.ird.fr/montpellier/week\\_all.php?day=30&month=4&year=2019&area=1](https://grr.ird.fr/montpellier/week_all.php?day=30&month=4&year=2019&area=1)  
Se connecter et mettre ses login de boîte mail pour accéder à la réservation en ligne

### MIVEGEC intranet access

**From January 2021 :**

Login : your ird email address and Passeword : your password for your ird mail box

**In 2020: Login :** memb\_mivegec and Passeword : ird224\_oct

### Create a video conference bridge

Lien <https://renavisio.renater.fr/>

Connexion IRD- mettre courriel IRD et mot de passe boîte mail pour accéder à la réservation en ligne

### IT assistance IRD

Téléphone 62-19 ou par mail [assistance-informatique@ird.fr](mailto:assistance-informatique@ird.fr)

# Notes



# Attestation

## Familiarization with the MIVEGEC welcome booklet

I, the undersigned

acknowledge having received the UMR MIVEGEC welcome booklet on my arrival, and having read its contents.

I certify that I have fully understood and accepted the health and safety measures set out in it, as well as the regulations of the «specific» laboratories (Exhibit BET and L2).

Last Name :

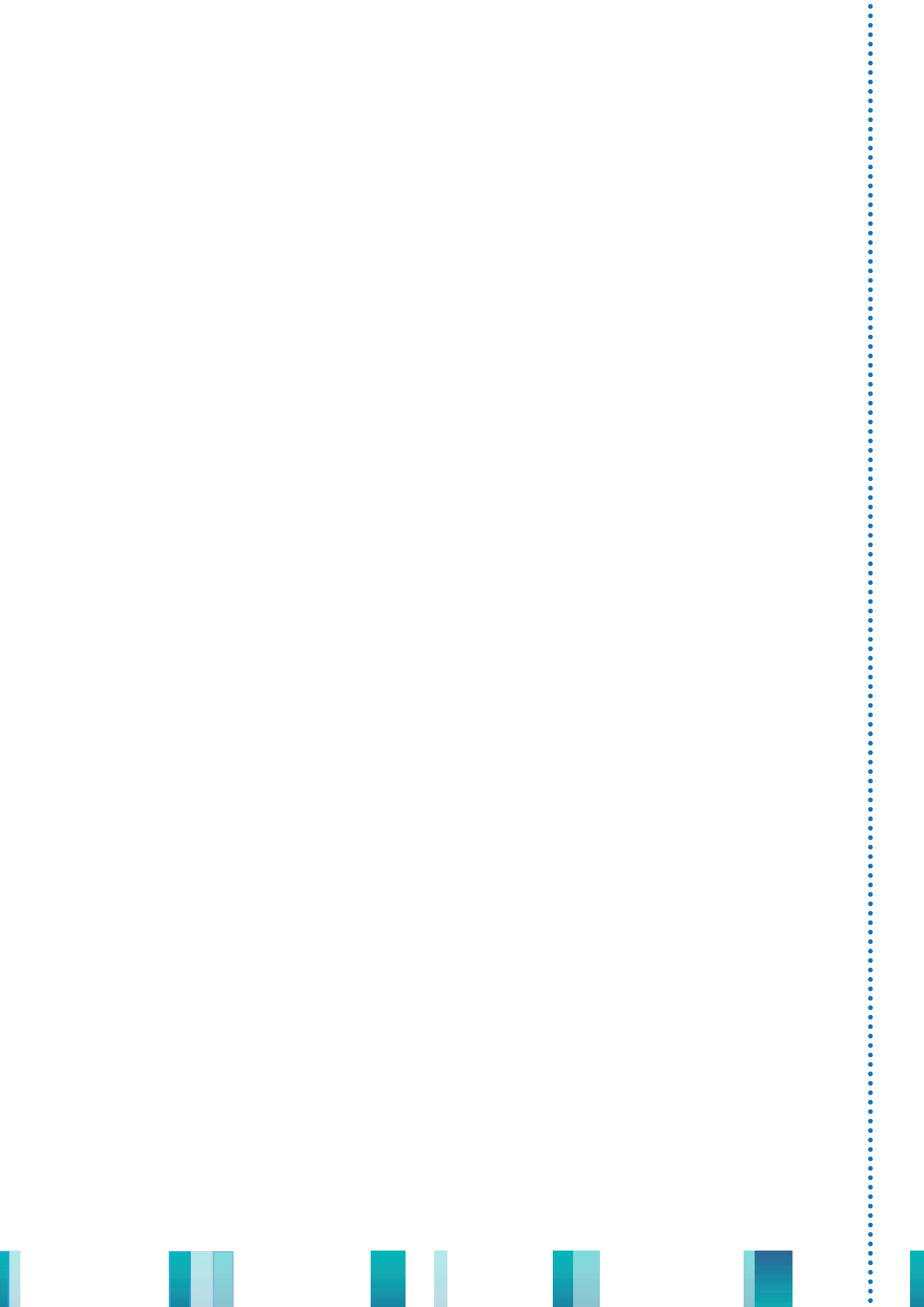
First Name :

Date :

Signature :



Once signed and dated, this certificate must be detached and given to the person in charge of your reception.





### **Pictures in bubbles :**

© IRD - Patrick Landmann : p 2 Etude des virus en laboratoire; p 3 Patrimoine scientifique arthropodes; p 5 émergence d'un moustique *Culex*; p 8 Larves d'*Anophele gambiae*; p14 Mouche Tsé-Tsé poudrée et Tique *Ixodes uriae*; p 16 Tests d'adaptation des moustiques aux insecticides; p 17 terrain en Camargue; p 18 Etude virus en laboratoire; p 38 Gorgement de Phlébotome;

p 4 © MIVEGEC Katia Grucker carte d'accès IRD; p 11 © CNEV - IRD Frédéric Jourdain Collection entomologique; p 13 © IRD - François Carlet Soulages Informatique biologie moléculaire; p 13 © IRD - Leonardo Basco séquençage ADN; p 13 © MIVEGEC - Mircea T. SOFONEA - Modélisation de l'évolution virale : létalité évolutivement stable du virus Ebola en fonction de son compromis avec la transmission et l'effort de contrôle sanitaire; p 19 © IRD - Pauline Ferraris Virus Zika; p 20 © IRD - Eric Leroy Virus Ebola; p 21 © MIVEGEC Isabelle Morlais Test goutte de sang terrain; p 23 © MIVEGEC Baptiste Vergnes Leishmania; p 24 © IRD - Baptiste Vergnes Leishmania; p 26 © Eve Miguel, La télémétrie avec l'utilisation de colliers GPS est aujourd'hui un outil essentiel dans l'étude de la mobilité animale ; p 27 © @ Bureau Martin / AFP. Etude de l'écologie des buffles africains en Afrique australe (Zimbabwe); p 31 © MIVEGEC Eric Leroy prélèvement virus Ebola déjection chauve souris; p 32 © MIVEGEC Isabelle Morlais partenariat sud; p 33 © MIVEGEC Pierre Becquart chauve souris ; p 34 © MIVEGEC Virginie Rougeron Chimpanzé dans le parc La Ledi

### **Pictures of waste management tables :**

p 22 à 30 © MIVEGEC Bethsabée Scheid étiquette acétone et sceaux blancs salle BET

p 29 © MIVEGEC Deborah Garcia tubes avec liquide souillé

p 26 à 36 © MIVEGEC Katia Grucker toutes les autres photos des déchets, panneaux

[www.mivegec.ird.fr](http://www.mivegec.ird.fr)



# Charte française de déontologie des métiers de la recherche

Janvier 2015 (ratifications au 13 juin 2019)



## Préambule

Dans une société de la connaissance et de l'innovation marquée par l'accélération de la construction et de la transmission des connaissances, par la compétitivité internationale, les organismes et les établissements publics d'enseignement et de recherche occupent une place privilégiée pour contribuer à relever les défis actuels et futurs. Leur responsabilité est de fournir des avancées décisives des savoirs, de les diffuser, de les transférer et de concourir à la mise en œuvre d'une expertise qualifiée, notamment en appui des politiques publiques. La mise en œuvre de cette responsabilité majeure implique la consolidation du lien de confiance avec la société.

L'objectif d'une charte nationale de déontologie des métiers de la recherche est d'explicitier les critères d'une démarche scientifique rigoureuse et intègre, applicable notamment dans le cadre de tous les partenariats nationaux et internationaux.

Cette charte constitue une déclinaison nationale des principaux textes internationaux dans ce domaine : la Charte européenne du chercheur (2005) ; the Singapore statement on research integrity (2010) ; the European code of conduct for research integrity (ESF-ALLEA, 2011). La charte s'inscrit dans le cadre de référence proposé dans le programme européen HORIZON 2020 de recherche et d'innovation.

Il est de la responsabilité de chaque organisme et établissement public de recherche et d'enseignement de mettre en œuvre cette charte, à travers la promotion de bonnes pratiques en recherche, la sensibilisation et la formation de leurs personnels et de leurs étudiants, l'énoncé de repères déontologiques, la mise en place de procédures claires et connues de tous pour prévenir et traiter les écarts éventuels aux règles déontologiques.

Il appartiendra à chaque institution d'en décliner l'adaptation selon les disciplines et les métiers concernés.

## La Charte

La charte nationale de déontologie des métiers de la recherche concerne l'ensemble des femmes et des hommes (désignés dans le texte par le terme générique « chercheur ») d'un établissement ou d'un organisme, permanents ou non, qui contribuent à l'activité de recherche et s'engagent à respecter, dans le cadre des missions de recherche ou d'appui à la recherche qui leur incombent, les principes d'intégrité qui y sont formulés.

### 1. Respect des dispositifs législatifs et réglementaires

Tout chercheur se tient informé des dispositifs législatifs et réglementaires qui régissent les activités professionnelles et veille au respect des textes correspondants, s'agissant notamment des recherches sur l'être humain, l'animal et l'environnement.

### 2. Fiabilité du travail de recherche

Les chercheurs doivent respecter les engagements pris dans le cadre de leur unité de recherche ou dans le cadre de contrats spécifiques. Les méthodes mises en œuvre pour la réalisation du projet de recherche doivent être les plus appropriées.

La description détaillée du protocole de recherche, dans le cadre de cahiers de laboratoire ou de tout autre support, doit permettre la reproductibilité des travaux expérimentaux.

Tous les résultats bruts (qui appartiennent à l'institution) ainsi que l'analyse des résultats doivent être conservés de façon à permettre leur vérification.

Les conclusions doivent être fondées sur une analyse critique des résultats et les applications possibles ne doivent pas être amplifiées de manière injustifiée. Les résultats doivent être communiqués dans leur totalité de manière objective et honnête.

Tout travail de recherche s'appuie naturellement sur des études et résultats antérieurs. L'utilisation de ces sources se doit d'apparaître par un référencement explicite lors de toute production, publication et communication scientifiques. Leur utilisation nécessite dans certain cas d'avoir obtenu en préalable les autorisations nécessaires.

### **3. Communication**

Les résultats d'un travail de recherche ont vocation à être portés à la connaissance de la communauté scientifique et du public, en reconnaissant les apports intellectuels et expérimentaux antérieurs et les droits de la propriété intellectuelle.

Le travail est le plus souvent collectif et quand c'est le cas, la décision de publication doit être prise de manière collective et conférer à chaque auteur un droit de propriété intellectuelle. La qualité d'auteur doit être fondée sur un rôle explicite dans la réalisation du travail, toutes les personnes remplissant la qualité d'auteur devant l'être. Les contributeurs qui ne justifient pas de la qualité d'auteur selon les critères internationaux doivent figurer dans les « remerciements » insérés dans la publication.

La liberté d'expression et d'opinion s'applique dans le cadre légal de la fonction publique, avec une obligation de réserve, de confidentialité, de neutralité et de transparence des liens d'intérêt. Le chercheur exprimera à chaque occasion à quel titre, personnel ou institutionnel, il intervient et distinguera ce qui appartient au domaine de son expertise scientifique et ce qui est fondé sur des convictions personnelles.

La communication sur les réseaux sociaux doit obéir aux mêmes règles.

### **4. Responsabilité dans le travail collectif**

À travers ses activités professionnelles, le chercheur s'engage dans les missions qui lui sont confiées par son employeur, en respectant les règles de bonne conduite en vigueur dans l'institution.

Les responsables de collectif et, plus généralement les chercheurs ayant une mission d'encadrement et de formation, doivent consacrer une attention suffisante pour faire partager le projet collectif, expliciter la contribution et accroître les compétences de chacun dans une dynamique collective.

Le respect dans les relations de travail constitue un comportement à promouvoir. Les discriminations, le harcèlement, l'abus d'autorité relèvent de fautes professionnelles.

La falsification, la fabrication de données, le plagiat sont les manquements les plus graves à l'intégrité. Ils doivent être signalés à l'institution et combattus.

### **5. Impartialité et indépendance dans l'évaluation et l'expertise**

Lors de l'évaluation d'un projet de recherche, d'un laboratoire ou d'un collègue, le chercheur examine tous les dossiers avec impartialité, en déclarant ses liens d'intérêt et en se récusant s'il constate un conflit potentiel d'intérêts, incompatible avec l'exercice impartial de l'évaluation. Il est tenu de respecter la confidentialité des délibérations et de s'interdire l'utilisation des données communiquées pendant la procédure d'évaluation.

Pour une expertise exercée au titre de l'institution, le chercheur se doit de respecter les termes de la charte nationale de l'expertise et de sa déclinaison à l'échelle de son institution d'appartenance.

## **6. Travaux collaboratifs et cumul d'activités**

Les travaux collaboratifs, en particulier en dehors de l'institution et à l'international, feront l'objet d'accords préalables avec les partenaires publics ou privés et doivent préserver l'indépendance du chercheur, concernant notamment la fourniture de données, leur exploitation, leur propriété intellectuelle et leur communication. Ils mobilisent les mêmes règles déontologiques, impliquant une responsabilité d'intégrité, de transparence et d'honnêteté.

Dans le cas des activités de conseil ou d'expertise menées en marge du travail de recherche, les chercheurs sont tenus d'informer leur employeur et de se conformer aux règles relatives au cumul d'activités et de rémunérations en vigueur dans leur institution. Les liens d'intérêts qui en découlent doivent faire l'objet de déclaration lors des activités de communication.

## **7. Formation**

Les règles déontologiques doivent être intégrées aux cursus de formation, en particulier au sein des cursus de master et de doctorat, et leur apprentissage doit être considéré comme participant à la maîtrise du domaine spécifique de recherche.

