

Groupement de Réflexion et d'Action pour l'Animal

## **Guidelines on the rehoming of laboratory animals**

### **From Lab to Home**

Refine, Replace, Reduce, Rehome (4R)



*Cannelle rehomed by GRAAL in march 2019 at the zoo-refuge LA TANIÈRE (FRANCE)*



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# Preface

Laboratory Primates are born and live part of their lives for research, serving humanity. This non consented sacrifice obliges us, all the more, because the knowledge that we validate with them can preserve a little bite more our life and our health each year. As citizens, our priority must be to ensure their well-being as much as possible in this paradoxical context and after...

The Association "Le GRAAL" is dedicated to this cause for 20 years promoting respect and empathy for Animals and encouraging peacefully, research facilities to take out retirement of their animal colleagues.

Henceforth, thanks to the persevering action of the association "Le GRAAL" and also many goodwill, especially GIRCOR association, laboratory primates can start a new life living for themselves. We now have the opportunity to do more for these monkeys: to contribute technically and financially to animal retirement and support the national plan for retirement of laboratory animals.

So I live as a privilege to be able to look after these primates now as their veterinarian and curator within the refuge zoo : La Tanière (The den).

Of course this commitment involves selection of partners applying the 3Rs rule: reduce the number of experimental animals to a minimum, Replace animal models with alternative methods and Refine protocols and procedures to make them more acceptable.

The ethical conditions of the zoo-refuge la taniere to welcome its residents are:

- improving life of animals in captivity through adapted housing, quality care, research and application of benevolent management means. (operant conditioning, human-animal relationship, socialization) and the scientific development of modern animal management techniques: applications of RFID, augmented reality, ....)
- reducing detention of non-domestic animals without any direct interest for individuals or species.
- avoid protocol output euthanasia.

My all carrier I have been fighting against slaughter differing from euthanasia which always is decided only in the animal interest. Slaughter can use the same means (drugs) but serves only human Beings. I had to go to court to stop illegal euthanasia of elephants accused abusively of being infected with zoonotic tuberculosis, climb trees to reach and save free ranging anesthetized Java macaques about to be slaughtered because they had a virus that never ever caused any documented disease in people bitten by this species of macaques...

Except animals for consumption, if an animal must die, this must be because of health issues and not financial considerations.

Let's bet that the efforts of all goodwill quickly make it possible to preserve the potential of acquiring knowledge and save animal lives.

*Dr Vétérinaire Florence Ollivet Courtois*

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# 1 ●

## General information: Retirement for laboratory animals



### Used animals

In 2015, more than 1.9 million animals have been used for experimental purposes in French research facilities<sup>1</sup>, and thus, only accounting for animals involved in experimental procedures completed in 2015.

To those should be added :

- Farm animals hosted in user institutes;
- Animals involved in procedures inducing no pain or distress, e.g. genetically modified animals without harmful phenotypes;
- Animals euthanized according to regulatory measures for organ and tissue collection for alternative methods purposes;

Those animals are indeed excluded from European statistics.

Rodents are primarily used (52.9% mice and 8.2% rats), but many other species are concerned (fish, rabbits, farm animals, birds, dogs, cats, horses, primates). In accordance with the Three Rs<sup>2</sup> (replace, reduce, refine), some of them are reused in new procedures. In 2015, on the total number of used animals, squirrel monkeys, baboons and rhesus monkeys were the most commonly reused in experimental procedures (54, 32 and 22%, respectively); next come carnivores (13%) and ferrets (10%). Animals used in non-survival procedures (5%) are de facto excluded from potential reuse. This also applies to the majority of animals involved in procedure of high pain/distress category (10%).

All species considered, experiments of low severity are the most common (44%). Yet, less than 1% of animals used in such procedures are reused. For example, only 13% ferrets, 11% dogs, 6% cats 2% rabbits, and less than 7% farm animals (goats, pigs, sheep) used in non-invasive procedures are reused. For those animals, an alternative to euthanasia -should the latter not be of medical or scientific need-is allowed and encouraged by the law<sup>3, 4</sup>: rehabilitation or retirement.

Retirement of animals after being used for scientific purposes concerns all animals that are about to leave experimental protocols without irreversible damage or risk of incurable or prolonged suffering, whose health condition allows. Those animals are also safe for human or animal health and the environment. That's why, appropriated measures must be taken to ensure their well-being<sup>3, 4</sup>.

Breeding animals at their career-end, control animals or farm animals that are not entering research facilities and meeting those criteria are also concerned.



## History and goals

In France, very few publications or data related to the rehabilitation of laboratory animals are available<sup>1</sup>. Studies published by Barthe<sup>5</sup> (2010), Chanvin et al<sup>6</sup> (2012) et Geloën<sup>7</sup> (2014) focus on the post-experimental follow-up of 343 animals (289 dogs, 25 rats, 29 cats). Working with 70 public and private research units, the GRAAL contributed to the placement of more than 2500 animals between 2005 and 2017<sup>8</sup>.

In 2011, the French Association for Science and Techniques of Laboratory Animals (AFSTAL) conducted a survey concerning the placement of animals coming from research protocols<sup>9</sup>. Among the 125 responding laboratories, 34 offered animals for adoption. Among the participants, 78 persons personally wished to place animals following their use, essentially to favor alternatives to euthanasia (51 of the 78 positive responses) or they considered euthanasia difficult, indicating that a majority of the lab personnel cares about the future of the animals. The upcoming welfare of these animals is a primary concern for the survey participants, since this answer has been the most common (36%) followed by confidentiality (20%) and the traceability of rehomed animals (12.8%). The concerns of animal technicians for the future of their animals and the positive impact of offering retirement to some of them has previously been highlighted by Carbone et al<sup>10</sup>. Nowadays in France, the law fosters

animal placement at the end of the experimentation (subject to their good health and the absence of risks for public or animal health and environment).

Offering a retirement to healthy animals is an ethical approach, vector of reconciliation between animal experimentation and civil society. More than a mark of respect toward studied animals, domestic or wild, this also brings to light the scientist engagement in lab animal welfare and their post-experimental outcome.

This action falls within the 3R framework and could be considered as a 4th R, "Retirement" (and/or "Rehome").

## Retirement or rehabilitation ?

"Retirement" of laboratory animals is a generic term including :

- Retired animals: animals already socialized when released, pets only (e.g., cats) or living with their congeners (e.g., goats)
- Recreation animals: They are used but free of intensive work (e.g., ridden horses)
- Rehabilitated animals: a specific preparation pre- and post-placement is necessary in order for these animals to get used to their new environment (e.g., dogs or primates to socialize). Rehabilitation depends on the animal situation

Retired or rehabilitated, they above all live it up after lab !



## Regulatory framework

At the national level, the procedure is regulated by the decree 2013-118 dating back to February 1st 2013 and the article R. 214-112 of the Rural Code. Retirement of laboratory animals is allowed by the European directive 2010/63/UE on the protection of animals used for scientific purposes (point 26 of the preamble, articles 19, 27, 29 to 31).

The placement or release of animals used or intended for experimental procedures, in a suitable habitat adapted to the specie, must be approved by the departmental prefect of the placement or release site, provided that :

- A vet certifies the animal health status
- There is no danger for public health animal health and environment
- Appropriated measures have been taken to preserve the animal welfare

Thus, regardless of the specie, animals released from research protocols, whose severity is considered mild to moderate, control or supernumerary animals are eligible to re-homing. Breeder animals and reformed farm animals are also concerned.

## Concerned species

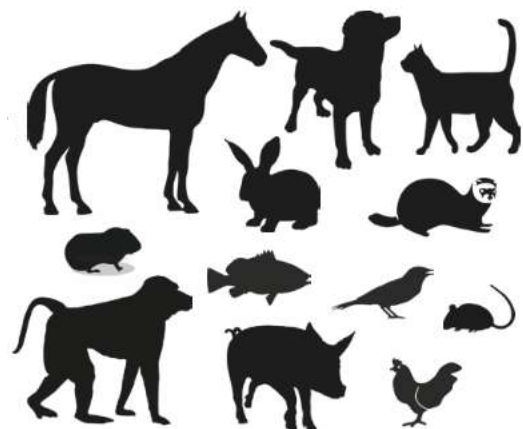
In France, affected species are those covered by the legislation for the protection of animal used for scientific purposes and include vertebrates and cephalopods. The most commonly involved animals are pets (dogs, cats, ferrets, rabbits, rodents, fish, birds), equidae, farm animals (pigs, sheep, goats, ducks, poultry) and wild fauna (primates).

### Rehoming must be considered when :

- Euthanasia is not required for scientific or regulatory reasons – Those animals will not be reused in additional protocols.
- It is not useful or necessary to keep them in the institution.

### Animals for which rehoming is considered must meet the following criteria :

- Be healthy
- Not pose a risk to the environment
- Not carry diseases transmissible to human beings or congeners
- Be socialized and have a behavior compatible with adoption/release







## **Provide them with retirement : for whom, why and how ?**

- **Mutual involvement: research team, veterinarian, (Animal welfare body – AWB)**
- **Reduce, refine, replace and rehome**
- **Support from the GRAAL and the White Rabbit association**
- **Positive perception from the civil society**

## **Veterinarian : a determining role**

Rehoming of lab animals is a voluntary approach. This action is approved case-by-case, under the responsibility of the AWB and the veterinarian which provides a certificate of good health for the concerned animals, complying with the requirements of the article R 214-112 of the French Rural and Maritime Fisheries Code.

The selection of animals to be rehomed must be based of the assessment of their physical and psychological health. This assessment must be performed by a veterinarian and a person trained to behavioral assessment.

The delivered veterinary certificate of good health is decisive to obtain the rehoming authorization.

**To offer the animals a new life, the GRAAL association supports the voluntary lab committing to :**

- **Not intensify recourse to the use of animals which might eventually facilitate animal rehoming**
- **Contribute to the cost of rehoming**
- **Provide a summary of the performed study (for general public)**
- **Not promote its image (as primary objective)**

**Good Animal Care  
and Good Science  
Go Hand in Hand**



**Offer a retirement to the animals who already offered so much to human beings is simultaneously an ethic, responsible and civic approach.**

# Responsibility and implementation

This non-binding procedure has to be evaluated by the research team (researchers and technicians), together with the AWB and the veterinarian, provided that the animals meet the standards defined by the decree 2013-118.

The future of an animal at the end of scientific experiments comes within the scope of ethics review. Animal retirement must therefore be considered from the beginning of the study conception. It can also be suggested by directors, independently from a project. However, the final decision regarding the animal retirement is left to the veterinarian, at the end of the procedure.

The veterinarian has an essential role in this procedure: s/he is responsible of evaluating the health status of the animals and has to write a certificate of good health required to the rehoming authorization. In addition to the physical examination, the psychological state of the animals must be taken into account. It is advisable to have this analysis carried out by a person trained to behavioral assessment, who might be a person other than the veterinarian.

All decision must be approved by the research director. If there is no internal procedure regarding animal rehoming, the director must be informed and approve the different steps. It is also necessary that the institution considering animal rehoming owns the animal.

Regular monitoring of the animals, together with a smooth communication between the research team, the AWB members, the veterinarian and the director of the institution allow an efficient implementation of the retirement.

## Organizing the retirement with a third party

The research units can retire animals without the support of a third party. However, it might be difficult to initiate the appropriate steps. To know who to approach, what the required administrative procedure are and ensure the confidentiality and security of the lab might represent obstacles to the implementation.

The action led by the GRAAL is motivated by the desire to facilitate the release of the animals, by providing concrete placement solutions to voluntary laboratories. Thanks to a network of hosting structures in continuous development, the GRAAL association is currently able to take over the retirement of numerous species. All the hosting structures are carefully selected in order to ensure the animal welfare. Add to that the association White Rabbit, founded in 2014 originally to take over laboratory rabbits, and which is now in charge of the placement of rodents. These two associations work in partnership in order to carry out the largest number of animal placements.





## Commitments of the GRAAL association

- Over 10 years of experience
- Coordination of the procedure
- Traceability and confidentiality
- Animal follow-up

Since 2005, the GRAAL has structured its action and selected hosting structures respecting the current regulation and ensuring animal welfare, and provides its expertise to research units by offering :

- The **retirement of all species** (cats, dogs, equidae, lagomorphs, primates, farm animals, birds, rodents, fish, ...)
- A **personalized contract** ensuring the proper procedure execution, in a spirit of trust and confidentiality as well as a high level of traceability
- An **expert staff** in charge of the retirement procedure and the socialization
- Adapted **hosting structures** everywhere in France
- **Communication** with general public

*At the outset of the action, only a few tens of animals were entrusted to the GRAAL every year. Nowadays, the GRAAL rehomes an average of 400 animals/year.*



**70**  
associated  
labs



**2500**  
rehomed  
animals



**100**  
associated  
shelters



# The retirement of laboratory animals



## Laboratories' role

- To anticipate releases
- To involve technicians
- To prepare animals
- Housing
- Administrative procedures
- Funding



## Key aspects

- No pain
- Good health
- No risks : congeners, human beings, environment
- Suitable socialization

**All species are concerned.**



## Ethologists' role

- Pre- and post-rehabilitation tracking
- Socialization process
- Evaluation of animal welfare (lab/new environment)

Ethical initiative and workplace wellness



Animal welfare



# A cooperative approach

## GRAAL's role



- Coordination between research units and shelters
- Administrative procedures
- Confidentiality
- Shelter selection
- Animal follow-up
- Customized solution
- Communication



Project management



Housing and pedagogy

## Shelters and adopters' role



- Adequate host places
- Animal follow-up
- Animal welfare
- Feedback on adoptions
- Action promotion

# 2

## ● The conduct of a rehabilitation



Every retirement is based on the volunteering of laboratories, which initiate the process by contacting the GRAAL, after choosing the concerned animals (a common decision of the scientists, animal technicians, veterinarian and AWB) and the validation of the retirement project by the center manager.

Animal releases are performed openly and lawfully. On the basis of a disposal agreement established with the research unit, the GRAAL supports the laboratory with the administrative procedures and selects an adapted hosting structure.

1. The laboratory contacts the GRAAL at the earliest possible stage (release anticipation), and indicates the number of animals to place, their characteristics (species, age, health status, behavioral assessment, e.g.).

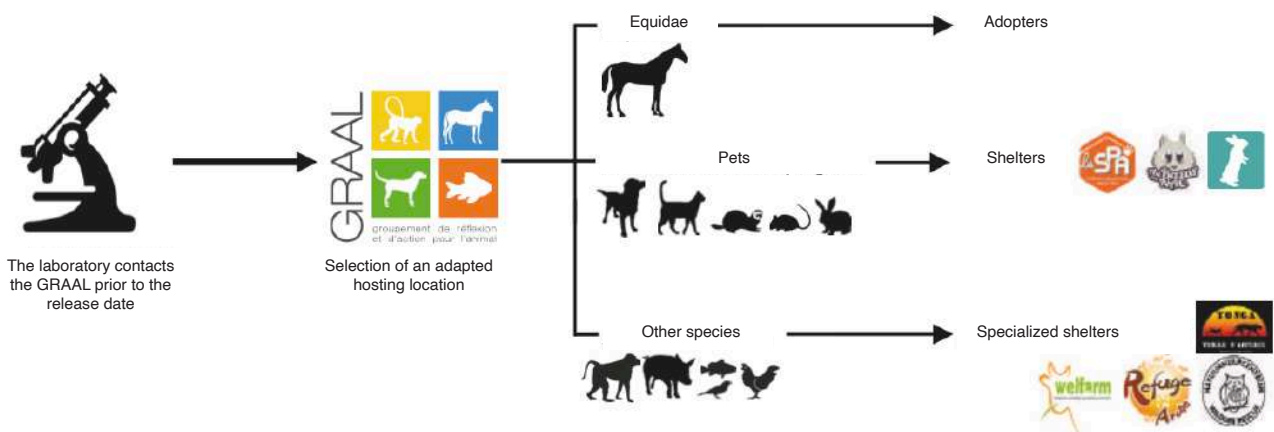
2. The GRAAL contacts its partners – the structures susceptible to host the animals. The response of the latter depends on the number of available places for the requested period.

3. In addition to that, the laboratory establishes a veterinary certificate of good health for the concerned animals.

4. As soon as the hosting venues are defined, the laboratory requests a placement authorization from the Departmental Directorate for the Protection of Populations (DDPP) auditing the laboratory (therefore the departure location), and from the DDPP on which the animal future hosting venue depends (DDPP of the arrival location).

5. The laboratory, the GRAAL and the shelter define a release date.

From the handling of the animal, the GRAAL commits to ensure the traceability of the rehabilitation process and to provide regular updates concerning the placed animals to the research units. The animal follow-up (pre- and post-retirement evaluation) is completed with our partners to make sure that the animals perfectly adapt to their new lifestyle.





## One placement, two contracts

During each placement, the GRAAL, as the interface between the laboratory and the hosting structure, engages simultaneously with the laboratory and the hosting structure which will take care of the animal. The GRAAL is not a hosting structure and cannot directly host the animals. The association works in partnership with different structures (Society for the Prevention of Cruelty to Animals – SPCA-shelters, equestrian centers, animal parks...) which will host the animals.

For each placement, two contracts are therefore established: one between the laboratory and the GRAAL, and the other one between the GRAAL and the hosting structure.

This procedure ensures the confidentiality of the information linked to the laboratory in regard to the hosting structure: the GRAAL becomes the owner of the animals and is responsible to transfer them to pre-selected hosting structures, based on their

conscientiousness and their sustainability. For each animal release, a valid contract had to be signed beforehand between the GRAAL and the partner laboratory.

## Key commitments of the GRAAL

The GRAAL engages with its partners to (non-exhaustive list) :

- Not sell the animals it takes in charge, not reintroduce them in other experimental protocols, and introduce these terms in the placement or disposal agreement with the hosting structure.
- Select the hosting structures in respect with the applicable regulations related to animal welfare.
- Meet any request for information from the prefecture or the DDPP regarding the future of the transferred animals.
- Stay in touch with the hosting structure during the stay of the animals.
- Offer the right of return to the animals while they are property of the GRAAL.
- Not disclose the identity of the transferring laboratory to the hosting structure or to anyone exterior to the contract.

Thanks to its expertise, the GRAAL can adapt each contract to the specific needs of the partner laboratory.





## Record of traceability

### Individual record of the animal

- Medical and health information
- Behavioral information
- Types of studies in which the animal participated
- To be transmitted to the GRAAL as soon as possible

#### Rodents and fish “in batches”

a single traceability record per group of animals



#### Other species: individual identification

a single traceability record per animal



The laboratory fills for each animal (or batch) a traceability sheet indicating :

- **Species, race, sex, date of birth, identification number** (if individual marking)
- **Health monitoring** (types and dates of vaccinations, sterilization, medical history, ...)
- **Behavioral evaluation** (socialization with congeners and humans)
- **Life conditions in the laboratory** (individual cage, group life, ...)
- **Diet** (plan anything required for the transition)
- **Types of protocols** in which the animal was involved
- **Any useful behavioral, health or zootechnical information**

## Behavioral evaluation

The well-being and ability of animals to adapt to new living conditions must be assessed before allowing the animals to leave. The opinion of a competent person trained in behavioral evaluation is recommended and the selection of the animals should be discussed with the AWB and the veterinarian delivering the VHC;

Age or certain pathologies (blindness, cardiovascular diseases, stereotypies, ...) do not constitute a limiting factor to retirement de facto. The level of the pathologies and their impact on animal welfare should be discussed. In case of placement, the locations will be chosen based on these specificities.

*The institution must have a suitable socialization program to prepare the animals for their release. Socialization is discussed in Part 3 of the guide.*





## Veterinary Health Certificate (VHC) : The exit key

- **State of physical and psychological health**
- **Prophylaxis**
- **Ability to become pets**
- **Integration into social groups**

*Before considering a retreat, it is essential for the laboratory to ensure that the animals are in good clinical and sanitary condition and that they can become pets which can be trusted with private individuals or integrated into existing social groups.*

The veterinarian draws up a certificate in accordance with the requirements of Article R214-112 of the FRMFC attesting that :

- The state of health of the animal allows its retirement
- Appropriate measures have been taken to preserve its well-being
- There is no danger to human, animal and environmental health

## Sterilization of the animals

Concerning domestic carnivores, retired animals are sterilized before their reception by the definitive adopters. Whenever possible, laboratories should sterilize the animals prior to their release. However, the impossibility of sterilization in the laboratory should not be an obstacle to retirement.

## Serology and sanitary prophylaxis

Depending on the type of protocol in which the animals were involved, specific serologies may be necessary to establish the VHC : the health aspects must be studied by a veterinarian specialized in laboratory animals.



### **Cats**

The shelters request a FIV-FelV test to welcome the animals without going through quarantine. For imported animals, specify whether they fall within the scope of the rabies vaccination waiver.



### **Farm animals**

Retired farm animals are subject to the same rules of traceability, identification and sanitary prophylaxis as production animals.



### **Primates**

The list of mandatory serologies is available in the Appendix.

## Application for DDPP placement authorization

- From the DDPP of departure and destination
- VHC (dated and signed)
- Contact details of the animal care institution
- Origin of the animals



*Any placement from a scientific institute (whatever the species and place) must be subject to prior authorization from the DDPP of departure and destination (article 214-112). The request must be done by the DDPP inspecting the laboratory that contacts the DDPP receiving the animals. This application must be accompanied by a veterinary certificate in accordance with the three points required by the article.*

## Authorization deadline

It takes a period of agreement from one week to one month to obtain the authorization. To facilitate the processing of a file, the person in charge of the animal inspections can be reached by phone. A copy of this authorization must be sent to the GRAAL.

## Retired animals outside France

The GRAAL works mainly with shelters located on the national territory. Nevertheless, some retirements are organized with other European countries. In addition to the mandatory documents for any retirement, it is also necessary to provide :

- a TRACE document (customs clearance authorization)
- an intra-community trade certificate (for EU countries).

Administrative procedures need to be carried out in the exporting country (France) and the importing one. This usually leads to an additional processing time and therefore an increase in the duration of the procedures.

## Animals released in natural environment

Releases in natural environment can be considered for some species. In addition to the authorization from the DDPP, the Regional Directorate for Food, Agriculture and Forestry (DRAAF) must be seized, as well as the National agency for hunting and wildlife (ONCFS) for implementation. Information that have to be transmitted: the list and origins of the animals, studies carried out and the destination of the released.





## Assignment document : transfer of ownership

- **Transfer of ownership in favor of the GRAAL**
- **The list of the transferred animals and the date of transfer**
- **Indicate the final place of reception**
- **The GRAAL will make the assignment with the host organization.**

*The transfer of animal ownership takes place from the laboratory to the GRAAL. The GRAAL will then be responsible for transferring the animals to the previously selected host structure. The transfer of ownership is carried out when the animals are handed over to the host organization. Upon the transfer of the animals, the host structures (the GRAAL and/or partner shelters) become responsible for the animals.*

## Passports - Small carnivores

In order to guarantee the confidentiality of the origin of the animals, dogs, cats and ferret passports must not be transmitted to the host structures. The information indicated on the traceability record will allow the veterinarian of the host structure to create a new passport for these animals.

## Transfer of possession to be reported under I-CAD (French identification of carnivore pets)

For dogs, cats and ferrets, the transfer is done the day the animal is released, preferably electronically. The GRAAL gives to the laboratory its SIRET number (company register) or that of the selected host structure. When noting the certificate on the I-CAD website or in paper format, neither the veterinarian who made the identification nor the last owner appears.

## Update of the registers

In accordance with the Article 30 of the Directive, the laboratory updates the animal register by notifying the retirement. The register ensures the traceability of the procedure for the laboratory. The fate of the animals following the experimentation :

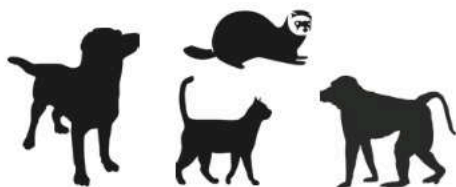
- must be subject to a prior proposal included in the experimental protocol
- must be indicated on the animal register (decree of 1st February 2013, appendix III, article 26).

The GRAAL and the reception facilities update their internal registers thanks to the traceability sheets and the assignment forms ensuring this function.

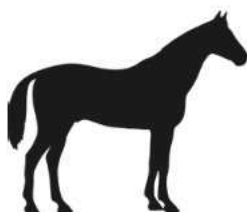


## Identification of the animals

The identification of the animals must comply with the European standards. In the case of an importation in France, the animal must be registered in the European registers according to the applicable modalities, as well as in the French register. For bovine, ovine, porcine, equine, canine, feline and nonhuman primates, regulations require individual identification. For animals identified by microchip, the latter must be in accordance with the ISO standard and contain 15 digits. For other species (rodents and fish in particular), individual tagging is not mandatory.



**Carnivores and primates**  
Electronic chip (ISO standard) or  
tattoo (before July 2011)



**Equidae**  
SIRE numbers and transponder  
(IFCE – French Horse and Equitation Institute)



**Farm animals**  
Livestock identification (EDE – Breeding  
institution)  
8-digit ear-tags  
Bird banding

## Domestic carnivores Double identification cases

The only identifications taken into account in the I-CAD file are tattoos (foreign or French sold by I-CAD services) and 15-digit chips. I-CAD does not take into account laboratory numbering. In case of loss or theft, the animals cannot be found using this laboratory ID but only with their tattoo number and/or chip. The laboratory identification (chip or tattoo not recognized by the I-CAD) can appear in the distinguishing features or name of the animal. It is strongly recommended that the identification of domestic carnivores is done only by microchip, from birth for the animals born in France. The veterinarian identifying the animal must buy the chips from his manufacturer, and the fee (for registration in the I-CAD file) directly from I-CAD.

## Electronic chip outside France and/or EU

Animals from farms outside France are identified (before their first transport) by a chip from the country in question or the laboratory. These chips can be recognized by I-CAD provided that a specific request for the recording of the insert on the French file is made. The processing time is less than one week from the receipt of the complete files. This procedure must be sufficiently anticipated by the laboratory so that the registration is effective at the latest during the transfer of ownership of the animal to the GRAAL.

The health certificate must include the identification and a statement specifying that the animal is rabies-free. For the file creation, one must refer to its personal space on [www.icad.fr](http://www.icad.fr), «procedures and rates» section then «Import».

## GMO animals

The laboratory sends a request for the decommissioning of GMO animals (genetically modified organisms) to the DDPP on which it depends, which forwards it to the Bureau Protection Animale (BPA – Animal Protection Bureau) of the General Directorate for Food (DGAL) of the Ministry of Agriculture. The file must contain the following information: injected vector, transgene, dates of performed tests, serologies showing the absence of the vector in the blood, feces, etc. The main steps for the retirement of a GMO animal are :

- The BPA-DGAL refers to the Higher Council for Biotechnology (HCB) : a commission every 6 weeks.
- The HCB carries out a scientific expertise and expresses an opinion on the risk of dissemination of the preferred vectors according to its replicating or non-replicating nature (analyzes with titrations).
- HCB may request to have the animal sterilized or to avoid breeding situations (e.g., primates).
- The HCB's opinion is first returned to the BPA and then forwarded to the DDPP to be transmitted to the laboratory.
- The laboratory indicates the HCB's opinion to the GRAAL, for perfect traceability.

*Several primates and dogs in this setting have already been able to retire.*

## Animals subjected to radioisotopes

It is the responsibility of the laboratory and more specifically of the “radiocompetent” person to confirm that the animals are radiologically «cold». The veterinary certificate that accompanies the rehabilitated animals must mention that

there is no danger with regard to these subjects.

## Animals with telemetric implants

Depending on the duration and type of protocols, it may be more traumatic for an animal to remove encapsulated electrodes than to keep them. Post-placement monitoring of the animals may be necessary to ensure that there are no side effects of the electrodes long-term.

## Wild animals

Additional serologies can be performed and included in the VHC. In the case of non-domestic animal transfer, other documents may be required when applying for a retirement authorization. In the case of primates or any animal listed in Appendix I or II of the CITES (Washington Convention), importation documents and/or authorization of ownership will be required.

***The GRAAL remains at the disposal of the teams to handle specific requests.***

# 3 • Preparation of animals



Some useful recommendations to help the GRAAL team organize perennial and quality retreats.

## TO AVOID

- **Short or insufficiently specified deadline**

(e.g. 10 dogs released in 10 days) -> Extra if delay to find a host structure or obtain permissions + poor working conditions (GRAAL)

- **«Empty» animal facilities before vacation**

If several laboratories solicit the GRAAL during the summer period, it is difficult to find places and appropriate care for all the concerned animals.

- **Large lots or groups**

Avoid the release of a large number of animals simultaneously (e.g., 100 rats in a month) or anticipate their release.

- **Procedure modifications**

Parameter change along the way (number of animals to be placed, desired geographic area, etc.)

- **No preparation**

Stressed or shy animals, difficulties adapting to a new environment.

- **Multiplying the constraints**

For example, a large number of non-sterilized animals to be placed in a restricted geographical area.

- **Incomplete or non-transmitted documents**

## GOOD PRACTICES

- **Anticipate the release**

Announce the estimated date of release from the entry of the animals in the protocol.

-> It allows to respect the desired date and avoids a maintenance surcharge (in the laboratory)

- **Anticipate release dates**

Shelters welcoming cats and dogs are saturated from July to September. Avoid these periods as much as possible or be open to wider geographical areas.

- **Number of animals**

Prepare the release of a reasonable number of animals at the same time, within a precisely stipulated timeframe.

- **Information and logistics**

Keep an update of the different parameters of the rehabilitation (number of animals, provisional date, distribution of the animals, etc.).

- **Prepare animals for the release**

Habituation to be manipulated, socialization, enrichment and various stimuli.

- **Limit the constraints of an operation**

As far as possible, limit the constraints of an operation (upstream sterilization of the animals, distribution, etc.)

- **Transmit all documents**





## Preparation of the animals for their release

- **Ensure animal well-being**
- **Enrichment of the living environment**
- **Program of socialization**
- **Facilitated integration in the new environment**

*One of the major issues in the affectation process is to ensure the well-being of the animals once they are retired. The transition from an animal shelter or research animal facility to a totally new and unknown environment requires a period of adaptation of the animals.*

## European Directive - Annex II - point 3.4b

All animals must have sufficient space to enable them to express a broad repertoire of normal behaviors. They must have a certain degree of control over their environment and a certain degree of freedom to avoid stress-induced behaviors. Institutions have to ensure appropriate enrichment techniques that broaden the range of possible animal activities and develop their coping skills, in particular by encouraging physical exercise, exploration, handling and cognitive activities, depending on the species.

Environmental enrichment in the compartments must be adapted to the specific and individual needs of the involved animals. Enrichment strategies in institutions need to be regularly reviewed and updated.

## Enrichment of the living environment

Interactions with the congeners, positive interactions with the animal technicians, playtime and training by positive reinforcement are all factors having a positive effect on the animal well-being. The organization of animal facilities, cages and enclosure is an important part of the enrichment program. The habituation to a living environment close to that of animals after the laboratory is particularly important. For example, dogs may be trained to use the stairs, exposed to various sounds and smells and have an access to the outdoors.





## Socialization and habituation programs

- Training of the caretakers for the evaluation of the animal welfare
- Diminution of behavioural pathologies
- Key role of the Animal Welfare body (e.g. SBEA in France) and of the research team
- Positive communication with the general public

*These programs have a fundamental impact on the final selection of animals that are eligible to rehoming. This selection must be based on the careful evaluation of a person who has been trained to evaluate animal behaviour (ethologist, veterinarian, member of an Animal Welfare body, etc.). These evaluations must be discussed with the veterinarian to analyse the physical and psychological health of the animals.*

## Socialization program

The adequate socialization of animals is a key factor for a successful rehoming. An upstream socialization facilitates the adaptation of an animal to its new environment and reduces the stress that a transfer in a foster or adoptive family (domestic animals and pets<sup>5-7,11,12</sup>) or in a new social group (wild species) may cause.

Enrichment and socialization programs must be developed in cooperation with the local animal welfare body, whose role is to advise the caretakers on questions related to the animal wellbeing (purchase, housing, care and use of the animals) but also to inform them on any rehoming programs, as well as on the necessity to socialize the animals that are about to be rehomed. A follow-up of the animals after their rehoming –evaluation of the physical and social wellbeing– ensures that former laboratory animals can evolve in functional social groups.



## Behavioural pathologies

Some animals living in confined environment can present behavioural pathologies. By complexifying their environment (using socialization), it is possible to reduce these symptoms<sup>20-23</sup>.

In order to rehome laboratory animals, it is therefore important to evaluate the severity of these behavioural pathologies and if they can impair the success of a rehoming. For pets, the patience and attention of good adopters might be sufficient to make these problems go away and to allow the animals to recover their balance.

# 4 ● Animal management



Over the years, the GRAAL developed a national network of high-quality and trusted partners for the care of retired laboratory animals. These animals are entrusted to the appropriate hosting structures, depending on the concerned species: shelters, educational farms, private adopters for pets, sanctuaries or zoological gardens for wild animals.

For this action to last, and given the raising number of animals to place every year and the species diversity, the GRAAL constantly seeks for new partners.

## Dogs and cats

In 2017, nearly 100 partners all over the country are able to host dogs and cats. The GRAAL works with shelters which belong to the national confederation of French SPCAs (Confédération Nationale des SPA de France, CNSPA) and independent shelters, by signing contracts with each of them. In 2016, the GRAAL and the SPCA engaged in a partnership to act jointly and improve the care of animals released from research protocols. In that agreement the SPCA commits to foster the accommodation in its 62 shelters of the animals taken in charge by the GRAAL following their release of experimental protocols. Perfectly taken in charge by the SPCA teams, those animals have the opportunity to access a new life in a warm and responsible family.

Since all the shelters are being highly requested and so as to ensure appropriate

care by the staff and a quick adoption, dog and cat placements should not happen during the summer.

## Horses

Unlike dogs and cats, there are very few equestrian structures able to host horses prior to their adoption. Between 2015 and 2017, the GRAAL set up a horse placement program for a French laboratory. A laboratory voluntary action associated with a daily action from the GRAAL (adopter search and selection, placement follow-ups and management of the network of volunteers responsible for the inspection visits) made possible the placement of 110 horses. In addition to this program, which ended in 2018, other equidae can be entrusted to the GRAAL for their retirement. Placement modalities are assessed case-by-case with the concerned research units: planned hosting structure, number of horses, visibility of the animals (horses still in the laboratory or in board), adoption management and follow-ups, laboratory financial contribution (transportation), animal ownership transfer and any additional useful information. The GRAAL has a network of volunteers carrying out inspection visits to ensure the post placement follow-up.



## Farm animals

Although few animals have been taken in charge, several specialized shelters are available (such as WELFARM and the “Ferme de la Hardonnerie”) to host sheeps, goats, pigs and poultry. The number of animals, their age, the group dynamics are many factors that should be taken into consideration. For example, a group of sows will be easier to place than 6 young boars living separately in the laboratory.

## Primates

Over 70 primates are hosted in zoos and/or in specialized shelters partnering with the GRAAL :

- Tonga Terre d’Accueil (Loire)
- Refuge de l’Arche (Mayenne)
- Natuurhulp Centrum (Belgium)

Each animal requires a specific care and the animals being retired at 10 years old on average, the diverse hosting structures are currently saturated. Nevertheless, the yearly number of primates eligible for retirement is estimated to a small ten by laboratories.

The “primate aviary” project initiated by the GRAAL in 2017 will allow a real care thanks to the building of dedicated aviaries, funded by the laboratories and whose layouts respond to the specific needs of the animals. The aim is to consolidate the existing partnerships and to work with new zoos and shelters willing to participate. These projects are currently under development.

## Small animals

Rats, mice, guinea pigs, other rodents, ferrets and rabbits can be hosted either by cat and dog shelters partnering with the GRAAL, or by specialized associations such as “La Ferme de Doudou” (guinea pigs and rabbits). The animal management can also be done in partnership with the White Rabbit Association, founded in 2014 to take care of rabbits and small laboratory animals. Those animals are hosted by the association host families or directly adopted. Small groups of animals (<20) facilitate the management by these hosting structures.

## Fish

Fish being largely used, their placement should also be considered. Several aquariums in France (public and private) are able to host them.





# 5

## Monitoring the retirement of animals

### Traceability

The GRAAL ensures the traceability and auditability of the retirement process as soon as the animal is taken care of from the laboratory. This information may be transmitted to the laboratory on request. The laboratory may also, if it wishes, be in direct contact with the host structure, and the GRAAL encourages some visiting rights during the stay of the animal within the host structure.

The GRAAL undertakes to respond to any information request from the Prefecture or the Departmental Directorate for the Protection of Populations.

### Guiding future adopters

To support anyone wishing to host a former-laboratory dog or cat, the ethologists partnering with the GRAAL have produced guidebooks. These printed booklets are given to adopters at the time of adoption in a shelter and are also available as free download on the GRAAL website.

The GRAAL works in synergy with the partner shelters, Animaux et Compagnie to strengthen the post-adoption monitoring process.

### Animal follow-up

For all retired animals (except those released in their natural habitat), the GRAAL carries out a post-adoptive follow-up to ensure the welfare of the animal in its new environment. Regular feedback is made to partner laboratories to share news with teams. Well-socialized pets (cats, dogs, rodents) before their release are generally adopted between 15 days and one month after their arrival. This may be faster if the animals are already sterilized when they arrive at the shelter.

The GRAAL may, in special cases, retain ownership of the animals for several months in order to ensure both the welfare of the animals and the satisfaction of the adopters. Regular email exchanges, telephone contacts, as well as follow-up visits by the GRAAL's national network of volunteers and its partners help to secure and consolidate the placement process.

News received from adopters show the great resilience of these dogs, horses, cats or rodents: despite a large range of age and or duration in the laboratory, they manage to adapt to their new life.

# 6

## ● Communication about retirement



The use of animals for scientific purposes remains a sensitive social issue, which can provoke debate and questioning. Providing a retreat for laboratory animals through a research unit/animal protection association partnership is a unique opportunity to link the world of research and the civil society. The GRAAL's approach has always been based on the search for an open and constructive dialogue, and one of the GRAAL's roles is to inform the general public about the carried out actions, which enable each year hundreds of animals to start a new life.

Shelters or adopters in contact with the GRAAL have many questions about studies involving animals and do not always have factual data on the use of these animals for scientific purposes. During the process of retirement, many interlocutors intervene whether before, during or after the release of the animals. It is also an opportunity to develop a controlled, concerted and positive communication with the public and the major media. Every day, the GRAAL plays its role of informant and uses different complementary means to inform and sensitize the general public: print media, radios, TV shows, social networks, website, blog, etc.

The GRAAL has a pro-active approach and diffuses a press release to the shelters hosting the animals as well as to the local media during each placement.

This press release gives factual data on the retirement process of laboratory animals and on the involved animals (species, age, types of studies).

The GRAAL teams participate as much as possible in public events and scientific symposia, to meet adopters and research teams, but especially to exchange with anyone interested in the question of the use of animals for scientific purposes and retirement perspectives. In 2017, for the first time, a joint communiqué from the GIRCOR and the GRAAL was distributed to the national media.

In order to promote this ethical and responsible approach and ensure the sustainability of these actions, **all stakeholders in the retirement process must agree to communicate.**

