PyRAT

Getting Started for Scientists

October 2021

Contents

1 Introduction

This guide helps scientists quickly become familiar with PyRAT's most widely used functions. After reading it, the software can be used for most daily tasks. The guide consists mainly of annotated screenshots with corresponding step-by-step instructions.

> At the end of a section, text in a light green box provides additional information on the topic.

Before continuing, please be sure to have login data (username and password) available.

2 Getting into PyRAT

2.1 Primary User or Secondary User

In PyRAT, scientists are classified as either Primary Users or as Secondary Users. Usually Primary Users are work group leaders and Secondary Users are work group members. Only Primary Users own animals.

2.2 Logging In and Selecting an Alias

1. Log in with a username and password. After the first login, changing the password may be required.
2. Selecting an alias limits what is visible to the animal data of a specific Primary User. To see all the data you are allowed to work with, select no alias.
3. To change the alias after logging in, click the user symbol in the top-right corner of the screen, select a new alias, and click Set alias.

Results: 225 animals found in 71 cages. Now showing 1 through 1
Filter: Owner: Primary User A ✖ Show plugged: Yes ✖ Show
Sorted by: ID (asc.)

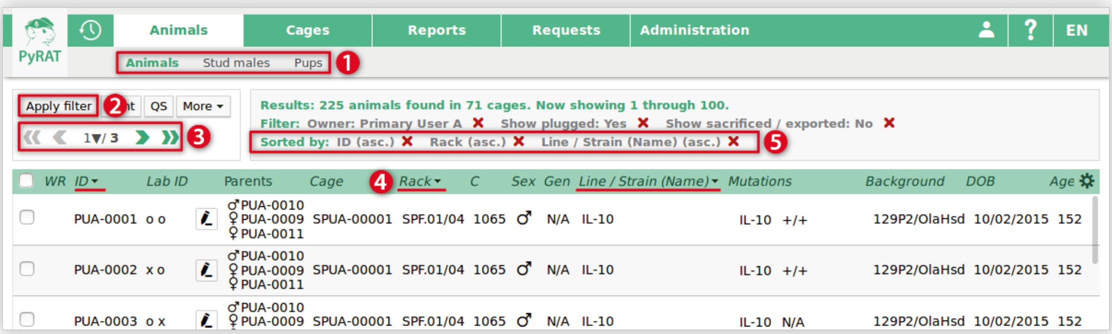
Logged in as: primarya
Current alias: primarya
Change alias to: Primary User A (PUA)

Selecting an Alias

> The alias limits your view to the data of a Primary User and can be changed any time.

3 After the Login: The Animal List

3.1 Overview



Results: 225 animals found in 71 cages. Now showing 1 through 100.
Filter: Owner: Primary User A ✕ Show plugged: Yes ✕ Show sacrificed / exported: No ✕
Sorted by: ID (asc.) ✕ Rack (asc.) ✕ Line / Strain (Name) (asc.) ✕

☐	WR	ID	Lab ID		Parents	Cage	Rack	C	Sex	Gen	Line / Strain (Name)	Mutations	Background	DOB	Age
☐		PUA-0001	o o		♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1065	♂	N/A	IL-10	IL-10 +/+	129P2/OlaHsd	10/02/2015	152
☐		PUA-0002	x o		♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1065	♂	N/A	IL-10	IL-10 +/+	129P2/OlaHsd	10/02/2015	152
☐		PUA-0003	o x		♂PUA-0010 ♀PUA-0009	SPUA-00001	SPF.01/04	1065	♂	N/A	IL-10	IL-10 N/A	129P2/OlaHsd	10/02/2015	152

The Animal List

The animal list shows the general properties of the animals. Stud males and pups are listed separately **(1)**.

Each row in the list represents one animal. By default, 100 animals are shown per page. To increase the number of animals shown per page, click Apply Filter **(2)**, and change the Results per page in the bottom-right corner of the Filter Options window. To switch between pages, use the paginator at the top left above the list **(3)**.

By default, the animal list is sorted by the animals' IDs. Click on any italic column label to add a sort criterion **(4)**. Sort criteria are shown in the summary box above the list and can be removed individually by clicking the x **(5)**.

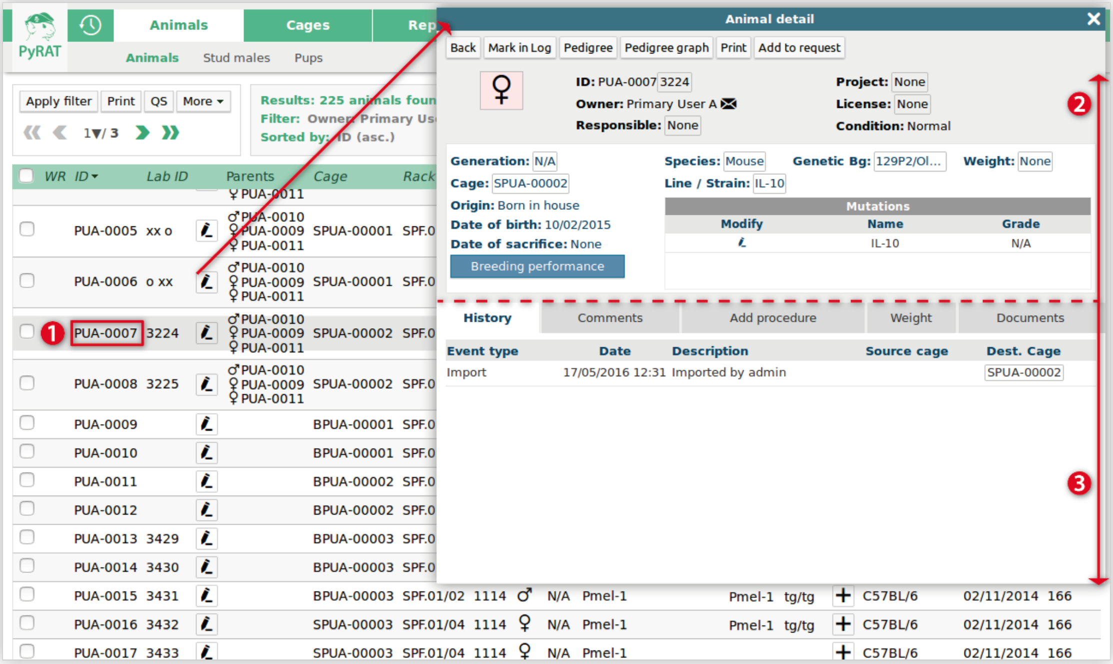
> IDs are automatically generated when new animals are imported or pups are weaned. An ID consists of two parts: a prefix and a suffix (e.g., USR-0032). One or more prefixes can be freely defined for each Primary User. The suffix is a consecutive number. In addition to prefix-suffix, the first letter in a cage ID indicates the cage type: B (breeding), E (experiment), S (stock) (e.g., SUSR-00006).

3.2 Animal Details

The Animal detail window shows more in-depth information.

1. To open the Animal detail window, click an animal's ID.
2. The upper part of the window shows the basic properties of the selected animal. To edit the information, click the highlighted fields. Click on the highlighted fields to edit the information. Add to request quickly selects the animal for a work request.

3 By default, the lower part of the window shows the event history of the selected animal. Click on the additional buttons to add and view comments, documents, and procedures, and change the animal's weight.



ID: PUA-0007 3224
Owner: Primary User A
Responsible: None
Project: None
License: None
Condition: Normal
Generation: N/A
Cage: SPUA-00002
Origin: Born in house
Date of birth: 10/02/2015
Date of sacrifice: None
Species: Mouse
Line / Strain: IL-10
Genetic Bg: 129P2/Ol...
Weight: None

Mutations		
Modify	Name	Grade
	IL-10	N/A

Event type	Date	Description	Source cage	Dest. Cage
Import	17/05/2016 12:31	Imported by admin		SPUA-00002

The Animal Detail Window

To see in-depth information about a cage, click the ID of a cage, which opens the Cage detail window.

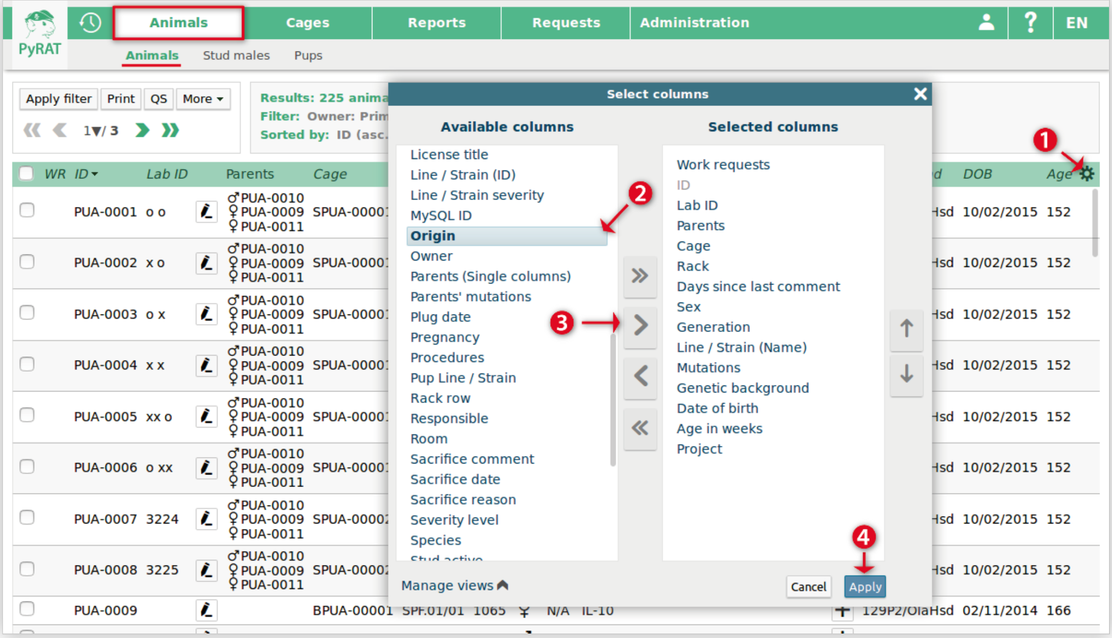
3.3 Customizing the List

The default animal list may not show all of the desired information. Users can customize their views by adding or removing columns in the lists.

Adding a Column to the List

To show the origin of an animal, for example, add the Origin column to the animal list.

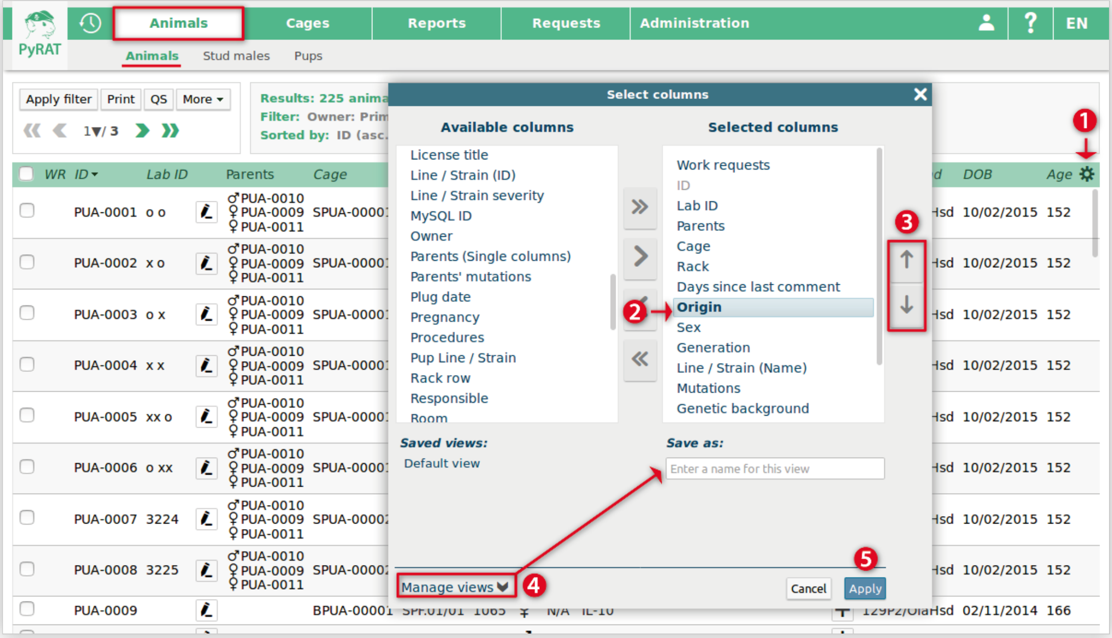
1 To open the Select columns window, click the gear symbol at the top right.
2 In the Available columns panel on the left, click Origin.
3 Click the gray button that points to the right to select the column.
4 Click Apply. The animal list reloads and now includes the new column (scroll to the right if needed).



Adding a Column

Changing the Column Position and Saving the View

After adding a column, its position in the animal list can be changed. This customized animal list can be saved for later use.

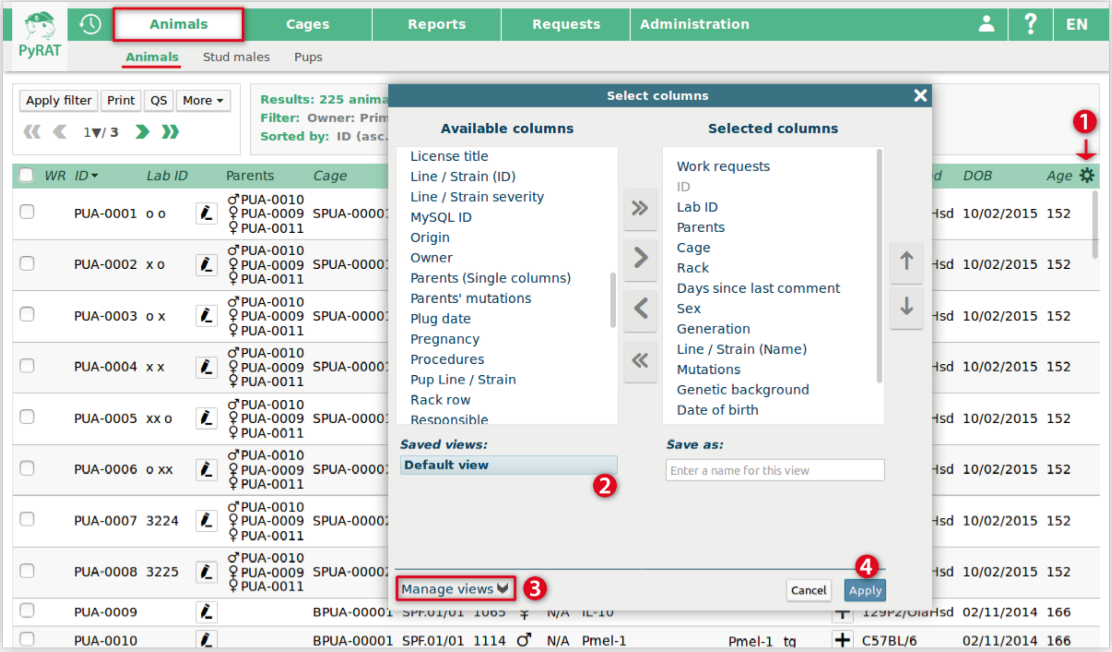


Changing and Saving the List View

1. To open the Select columns window, click the gear symbol.
2. In the Selected columns panel on the right, click Origin.
3. Use the arrows on the right to change the position of the Origin column in the list.
4. To save your view, click Manage Views and enter a name.
5. Click Apply.

Returning to the Default View

To reverse all changes, return to the default view of the animal list.



Selecting the Default View

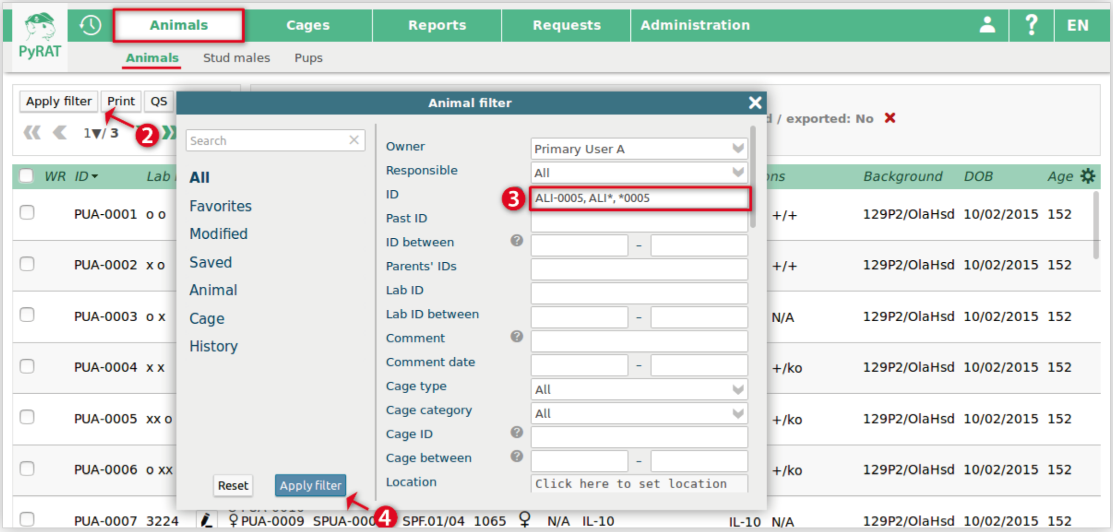
1. To open the Select columns window, click the gear symbol.
2. To see all Saved views, click Manage views.
3. Select Default view.
4. Click Apply. The animal list reloads showing the columns of the Default view.

In the Manage views window, it is possible to switch between views and also remove Saved views by clicking the red x next to their names.

3.4 Finding Animals with the Animal Filter

To find specific animals, apply the corresponding filter options. More than one filter option can be used simultaneously.

Finding Animals by Their ID



Owner: Primary User A
Responsible: All
ID: ALI-0005, ALI*, *0005
Cage type: All
Cage category: All
Location: Click here to set location

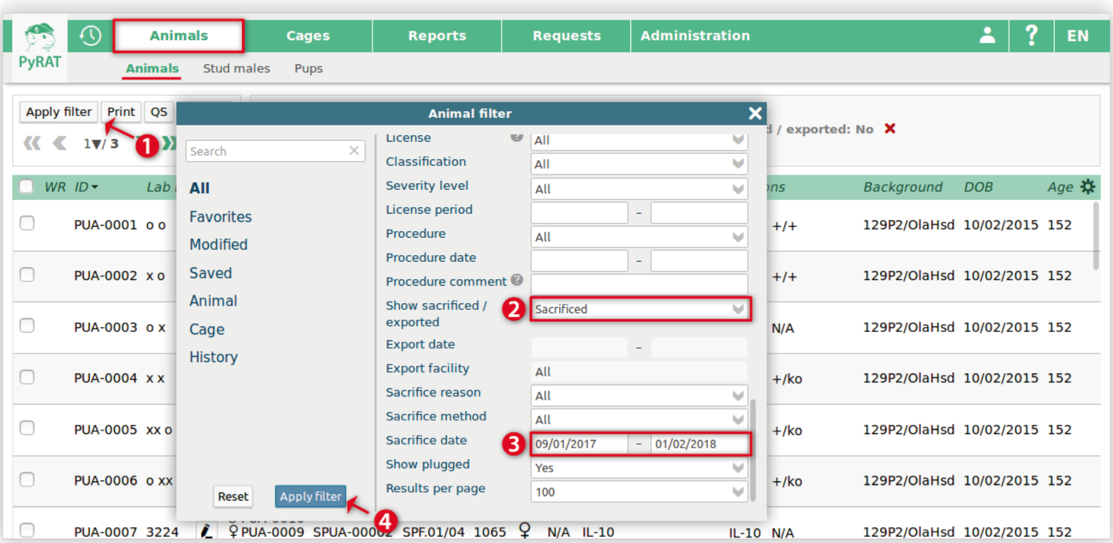
Finding Animals by ID

1 Go to the animal list: Animals ▸ Animals.
2 To open the Filter options, click Apply Filter.
3 Enter one or more IDs, separated by commas.
4 Click Apply.

There are several ways to enter an ID:

- Full animal ID, e.g., ART-0005
- Specific prefix, e.g., TES
- Suffix or the last digits of a suffix, e.g., 0005
- Pattern containing at least one wildcard character (*), e.g., ART-10*, *005, *05*

Finding Dead Animals



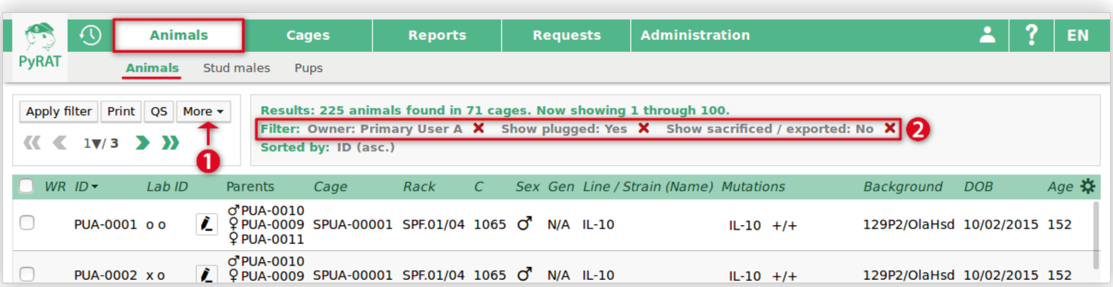
License: All
Classification: All
Severity level: All
Procedure: All
Show sacrificed / exported: Sacrificed
Export facility: All
Sacrifice reason: All
Sacrifice method: All
Sacrifice date: 09/01/2017 – 01/02/2018
Show plugged: Yes
Results per page: 100

Finding Dead Animals

1. To open the Filter options, click Apply Filter.
2. In the Show sacrificed/exported drop-down list, select Sacrificed.
3. Select the time period in the Sacrifice date field.
4. Click Apply.

Removing a Filter

There are two ways to remove a filter.



Results: 225 animals found in 71 cages. Now showing 1 through 100.
Filter: Owner: Primary User A ✕ Show plugged: Yes ✕ Show sacrificed / exported: No ✕
Sorted by: ID (asc.)

WR	ID	Lab ID	Parents	Cage	Rack	C	Sex	Gen	Line / Strain (Name)	Mutations	Background	DOB	Age
☐	PUA-0001	o o	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1065	♂	N/A	IL-10	IL-10 +/+	129P2/OlaHsd	10/02/2015	152
☐	PUA-0002	x o	♂PUA-0010 ♀PUA-0009	SPUA-00001	SPF.01/04	1065	♂	N/A	IL-10	IL-10 +/+	129P2/OlaHsd	10/02/2015	152

Removing a Filter

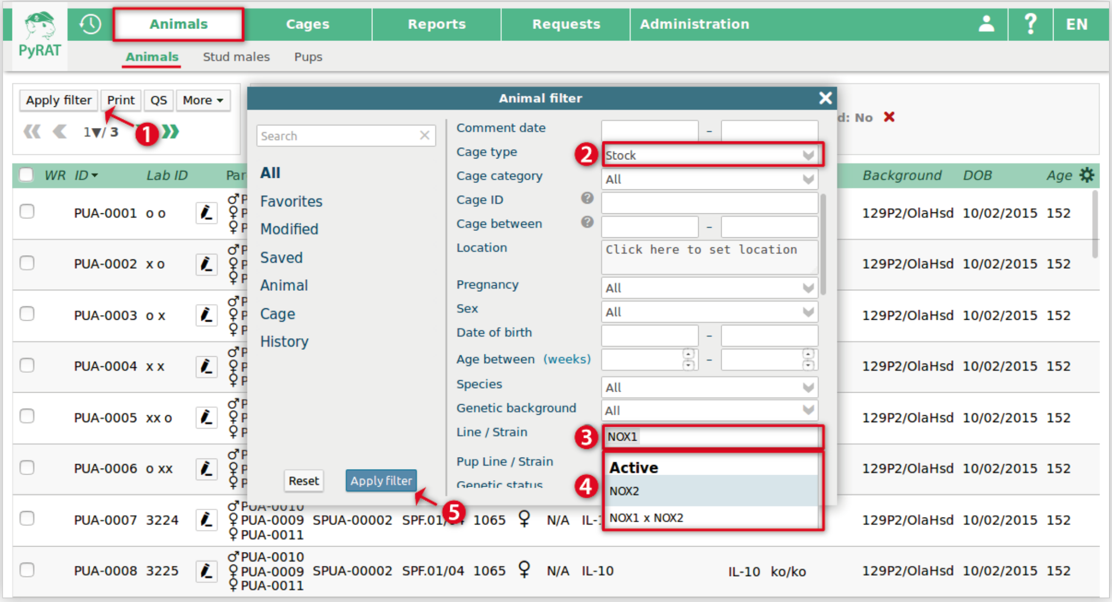
1. To return to the default filter setting, click More ▸ Remove Filter.
2. To remove filter options individually from the summary box above the list, click the x's.

In the Apply Filter window, users can also return to the default filter setting by clicking on Reset just before applying a new filter.

4 From Breeding to Sacrifice: A Walkthrough

4.1 Finding Animals from Different Lines for Breeding

Before a breeding can be initiated, the animals wanted for breeding must be found. Use the animal filter to find stock cage animals from two different lines/strains.



Cage type: Stock
Cage category: All
Pregnancy: All
Sex: All
Species: All
Genetic background: All
Line / Strain: NOX1

	ID	Lab ID		Background	DOB	Age
☐	PUA-0001	o o		129P2/OlaHsd	10/02/2015	152
☐	PUA-0002	x o		129P2/OlaHsd	10/02/2015	152
☐	PUA-0003	o x		129P2/OlaHsd	10/02/2015	152
☐	PUA-0004	x x		129P2/OlaHsd	10/02/2015	152
☐	PUA-0005	xx o		129P2/OlaHsd	10/02/2015	152
☐	PUA-0006	o xx		129P2/OlaHsd	10/02/2015	152
☐	PUA-0007	3224	♂PUA-0010 ♀PUA-0009 SPUA-00002 SPF.01/04 1065 ♀ N/A IL- ♀PUA-0011	129P2/OlaHsd	10/02/2015	152
☐	PUA-0008	3225	♂PUA-0010 ♀PUA-0009 SPUA-00002 SPF.01/04 1065 ♀ N/A IL-10 IL-10 ko/ko ♀PUA-0011	129P2/OlaHsd	10/02/2015	152

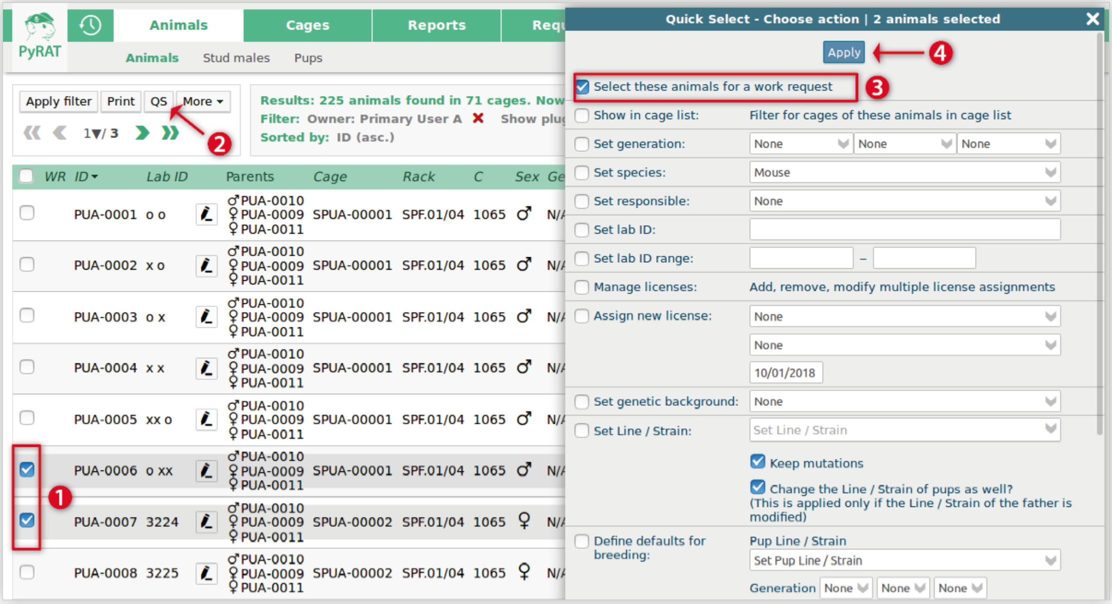
Finding Animals for Breeding

1 Open the Filter options in the animal list.
2 As the Cage type, select Stock.
3 To select the first Line / Strain, click All. A drop-down list opens. Either select a value in the list or enter a least one character of a Line/Strain to open an auto-completion list and select a value from there.
4 To enter a second Line / Strain, click next to the first selected value and proceed as in 3.
5 Click Apply. The animal list reloads showing only stock cage animals from the selected lines/strains.

> To see all the lines/strains that you are allowed to work with, go to: Administration ▸ Animal properties ▸ Lines / Strains.

4.2 Creating a Breeding Work Request

After filtering the animal list, a breeding work request can be created.



Results: 225 animals found in 71 cages. Now
Filter: Owner: Primary User A ✕ Show plu
Sorted by: ID (asc.)

☐	WR	ID ▾	Lab ID	Parents	Cage	Rack	C	Sex	Ge
☐		PUA-0001	o o	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1065	♂	N/
☐		PUA-0002	x o	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1065	♂	N/
☐		PUA-0003	o x	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1065	♂	N/
☐		PUA-0004	x x	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1065	♂	N/
☐		PUA-0005	xx o	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1065	♂	N/
☑		PUA-0006	o xx	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1065	♂	N/
☑		PUA-0007	3224	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00002	SPF.01/04	1065	♀	N/
☐		PUA-0008	3225	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00002	SPF.01/04	1065	♀	N/

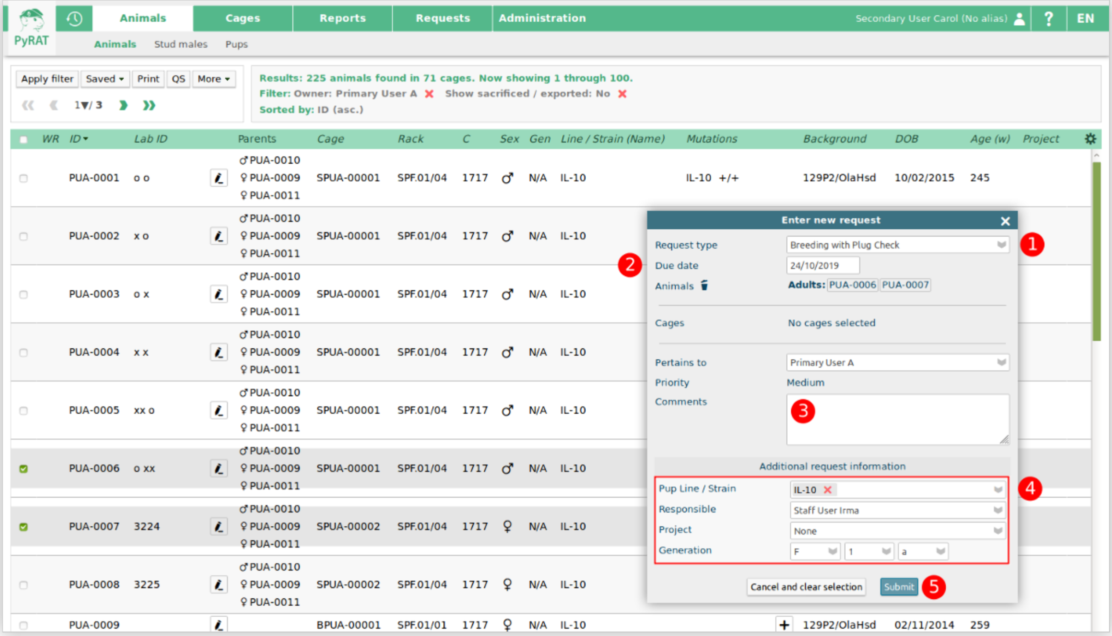
☑ Select these animals for a work request
☐ Show in cage list: Filter for cages of these animals in cage list
☐ Set generation: None | None | None
☐ Set species: Mouse
☐ Set responsible: None
☐ Set lab ID:
☐ Set lab ID range: –
☐ Manage licenses: Add, remove, modify multiple license assignments
☐ Assign new license: None | None | 10/01/2018
☐ Set genetic background: None
☐ Set Line / Strain: Set Line / Strain
☑ Keep mutations
☑ Change the Line / Strain of pups as well? (This is applied only if the Line / Strain of the father is modified)
☐ Define defaults for breeding: Pup Line / Strain: Set Pup Line / Strain | Generation: None | None | None

Opening a New Work Request

1. Select the animals you want to breed from the animal list.
2. To open the Quick Select window, click QS.
3. In this window, check the Select these animals for a work request box.
4. Click Apply.

In the following pop-up window, click Immediately Open a New Request. The Enter new request window pops up.

> Animals also can be selected for a work request without immediately opening a new request. (The same applies for pups and cages.) If additional animals are selected, these can be added to the selection (by selecting the QS action Extend current selection of x animals) or the existing selection can be replaced by the newly selected animals.



Results: 225 animals found in 71 cages. Now showing 1 through 100.
Filter: Owner: Primary User A ✕ Show sacrificed / exported: No ✕
Sorted by: ID (asc.)

☐	WR	ID	Lab ID	Parents	Cage	Rack	C	Sex	Gen	Line / Strain (Name)	Mutations	Background	DOB	Age (w)	Project
☐		PUA-0001	o o	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1717	♂	N/A	IL-10	IL-10 +/+	129P2/OlaHsd	10/02/2015	245	
☐		PUA-0002	x o	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1717	♂	N/A	IL-10					
☐		PUA-0003	o x	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1717	♂	N/A	IL-10					
☐		PUA-0004	x x	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1717	♂	N/A	IL-10					
☐		PUA-0005	xx o	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1717	♂	N/A	IL-10					
☑		PUA-0006	o xx	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	1717	♂	N/A	IL-10					
☑		PUA-0007	3224	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00002	SPF.01/04	1717	♀	N/A	IL-10					
☐		PUA-0008	3225	♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00002	SPF.01/04	1717	♀	N/A	IL-10					
☐		PUA-0009			BPUA-00001	SPF.01/01	1717	♀	N/A	IL-10	+	129P2/OlaHsd	02/11/2014	259	

Enter new request

Request type: Breeding with Plug Check
Due date: 24/10/2019
Animals: **Adults:** PUA-0006 PUA-0007
Cages: No cages selected
Pertains to: Primary User A
Priority: Medium
Comments:

Additional request information
Pup Line / Strain: IL-10 ✕
Responsible: Staff User Irma
Project: None
Generation: F 1 a

Creating a Breeding Work Request

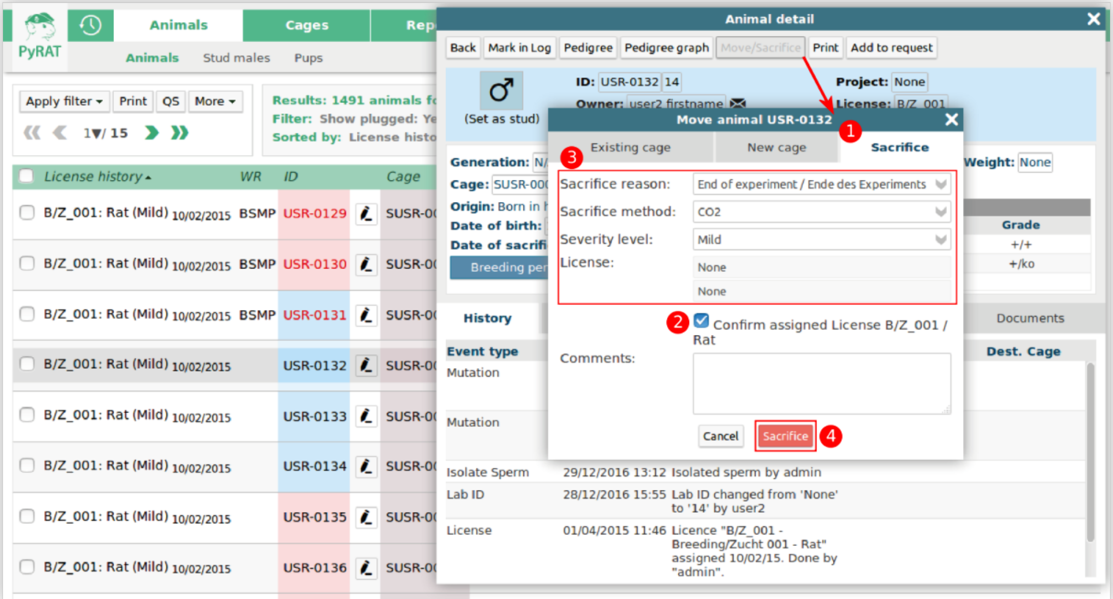
1 In the Enter new request window, select the Request Type that is defined for breeding at your facility.
2 Select the date for when the breeding cage is required.
3 If desired, enter comments and notes for the animal caretaker.
4 Select the expected Pup Line / Strain. Optionally it is possible to select a Responsible, the Project and the expected Generation.
5 Click Submit. The work request is created and will be carried out by an animal caretaker.

Your facility defines the names of Request Types. If the request type needed cannot be found, please ask one of the PyRAT administrators at your facility.

It is mandatory to select the expected Pup Line / Strain. Ask one of the PyRAT administrators at your facility to enter missing lines/strains into PyRAT.

4.3 Viewing the Work Request

Animals in open work requests are marked in red in the animal list with the corresponding request type's short name under the WR column.



Results: 1491 animals fo
Filter: Show plugged: Ye
Sorted by: License histo

☐	License history ▴	WR	ID		Cage
☐	B/Z_001: Rat (Mild) 10/02/2015	BSMP	USR-0129		SUSR-00
☐	B/Z_001: Rat (Mild) 10/02/2015	BSMP	USR-0130		SUSR-00
☐	B/Z_001: Rat (Mild) 10/02/2015	BSMP	USR-0131		SUSR-00
☐	B/Z_001: Rat (Mild) 10/02/2015		USR-0132		SUSR-00
☐	B/Z_001: Rat (Mild) 10/02/2015		USR-0133		SUSR-00
☐	B/Z_001: Rat (Mild) 10/02/2015		USR-0134		SUSR-00
☐	B/Z_001: Rat (Mild) 10/02/2015		USR-0135		SUSR-00
☐	B/Z_001: Rat (Mild) 10/02/2015		USR-0136		SUSR-00

ID: USR-0132 14
Owner: user2 firstname
Project: None
License: B/Z_001
Generation: N/
Cage: SUSR-000
Origin: Born in h
Date of birth:
Date of sacrifi
Weight: None

Grade
+/+
+/ko

Sacrifice reason: End of experiment / Ende des Experiments
Sacrifice method: CO2
Severity level: Mild
License: None
None
☑ Confirm assigned License B/Z_001 / Rat
Comments:

Event type			Dest. Cage
Mutation			
Mutation			
Isolate Sperm	29/12/2016 13:12	Isolated sperm by admin	
Lab ID	28/12/2016 15:55	Lab ID changed from 'None' to '14' by user2	
License	01/04/2015 11:46	Licence "B/Z_001 - Breeding/Zucht 001 - Rat" assigned 10/02/15. Done by "admin".	

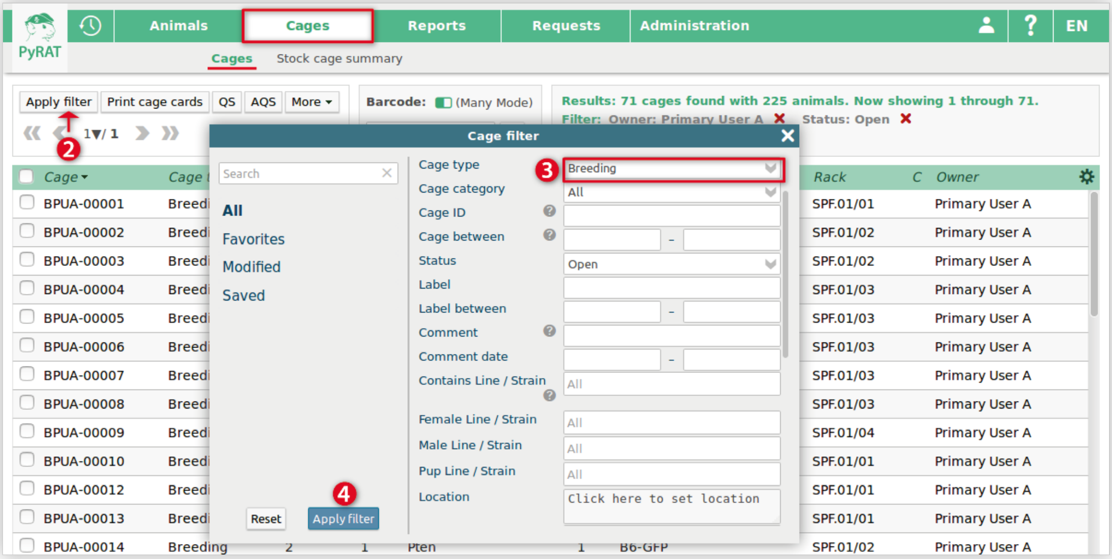
The Request Detail Window

1 To open the Request detail window, click the WR short name. This window shows in-depth information on the work request itself and the animals and cages involved with it.
2 To access the respective detail window, click on an animal or cage ID.
3 The expected Pup Line / Strain and Generation can be see in the Additional request information tab in the bottom of the window.

> To see a list of all open work requests, go to: Request ▸ Work requests. Click a work request in the list to open its Request details.

4.4 Finding a Breeding Cage

Go to the cage list and apply a suitable filter to find a specific breeding cage.



Results: 71 cages found with 225 animals. Now showing 1 through 71.
Filter: Owner: Primary User A ✗ Status: Open ✗

Cage type: Breeding
Cage category: All
Cage ID:
Cage between: –
Status: Open
Label:
Label between: –
Comment:
Comment date: –
Contains Line / Strain: All
Female Line / Strain: All
Male Line / Strain: All
Pup Line / Strain: All
Location: Click here to set location

Cage	Rack	Owner
BPUA-00001	SPF.01/01	Primary User A
BPUA-00002	SPF.01/02	Primary User A
BPUA-00003	SPF.01/02	Primary User A
BPUA-00004	SPF.01/03	Primary User A
BPUA-00005	SPF.01/03	Primary User A
BPUA-00006	SPF.01/03	Primary User A
BPUA-00007	SPF.01/03	Primary User A
BPUA-00008	SPF.01/03	Primary User A
BPUA-00009	SPF.01/04	Primary User A
BPUA-00010	SPF.01/01	Primary User A
BPUA-00012	SPF.01/01	Primary User A
BPUA-00013	SPF.01/01	Primary User A
BPUA-00014	SPF.01/02	Primary User A

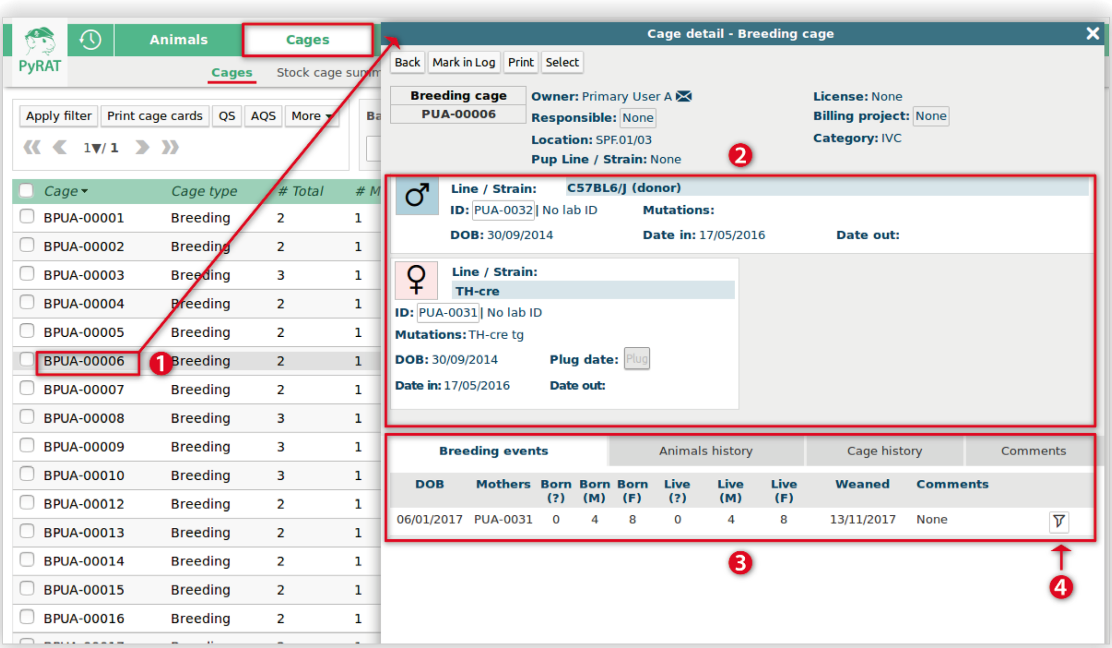
Finding a Breeding Cage

1 Go to the cage list: Cages ▸ Cages. By default, breeding cages are at the top of the list.
2 To find a specific breeding cage, click Apply Filter.
3 Apply a suitable filter (e.g., Cage type, Cages with pups, Cages with plugged animals, Last modified, etc.).
4 Click Apply.

4.5 Breeding Cage Details

The Cage detail window of a breeding cage has in-depth information and gives quick access to the breeding animals and their offspring.

1 To open the Cage detail window, click a breeding cage’s ID.
2 In the middle of the window the breeding animals are shown. The Plug date indicates when a female was plugged.
3 The Breeding events at the bottom show the litter of this breeding cage. A weaning date indicates that the litter has already been weaned.
4 Click the filter symbol on the far right to filter the pup or animal list for this litter.



Cage	Cage type	# Total	# M
BPUA-00001	Breeding	2	1
BPUA-00002	Breeding	2	1
BPUA-00003	Breeding	3	1
BPUA-00004	Breeding	2	1
BPUA-00005	Breeding	2	1
BPUA-00006	Breeding	2	1
BPUA-00007	Breeding	2	1
BPUA-00008	Breeding	3	1
BPUA-00009	Breeding	3	1
BPUA-00010	Breeding	3	1
BPUA-00012	Breeding	2	1
BPUA-00013	Breeding	2	1
BPUA-00014	Breeding	2	1
BPUA-00015	Breeding	2	1
BPUA-00016	Breeding	2	1

Cage detail - Breeding cage

Breeding cage PUA-00006

Owner: Primary User A
Responsible: None
Location: SPF.01/03
Pup Line / Strain: None
License: None
Billing project: None
Category: IVC

♂ **Line / Strain:** C57BL6/J (donor)
ID: PUA-0032 | No lab ID **Mutations:**
DOB: 30/09/2014 **Date in:** 17/05/2016 **Date out:**

♀ **Line / Strain:** TH-cre
ID: PUA-0031 | No lab ID
Mutations: TH-cre tg
DOB: 30/09/2014 **Plug date:** Plug
Date in: 17/05/2016 **Date out:**

DOB	Mothers	Born (?)	Born (M)	Born (F)	Live (?)	Live (M)	Live (F)	Weaned	Comments
06/01/2017	PUA-0031	0	4	8	0	4	8	13/11/2017	None

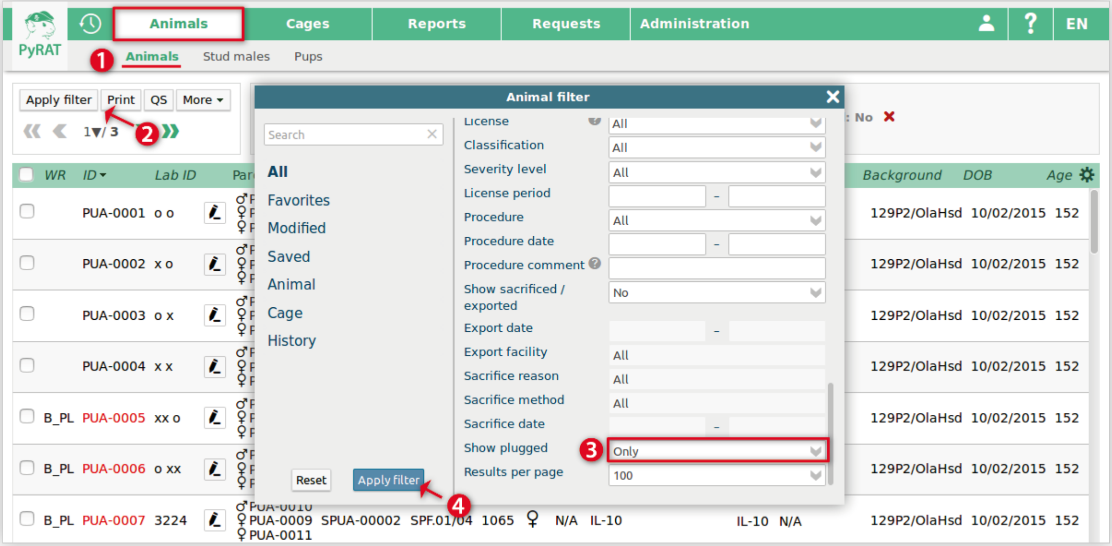
Breeding Cage Details

4.6 Finding Plugged Animals, Pups, and Weaned Animals

Finding Plugged Animals

To find plugged animals, filter the animal list.

1. Go to the animal list.
2. Click Apply Filter.
3. In the field Show plugged, select Only from the drop-down list.
4. Click Apply.



Animal filter

License: All
Classification: All
Severity level: All
License period: -
Procedure: All
Procedure date: -
Procedure comment:
Show sacrificed / exported: No
Export date: -
Export facility: All
Sacrifice reason: All
Sacrifice method: All
Sacrifice date: -
Show plugged: Only
Results per page: 100

WR	ID	Lab ID	Background	DOB	Age
	PUA-0001	o o	129P2/OlaHsd	10/02/2015	152
	PUA-0002	x o	129P2/OlaHsd	10/02/2015	152
	PUA-0003	o x	129P2/OlaHsd	10/02/2015	152
	PUA-0004	x x	129P2/OlaHsd	10/02/2015	152
B_PL	PUA-0005	xx o	129P2/OlaHsd	10/02/2015	152
B_PL	PUA-0006	o xx	129P2/OlaHsd	10/02/2015	152
B_PL	PUA-0007	3224	129P2/OlaHsd	10/02/2015	152

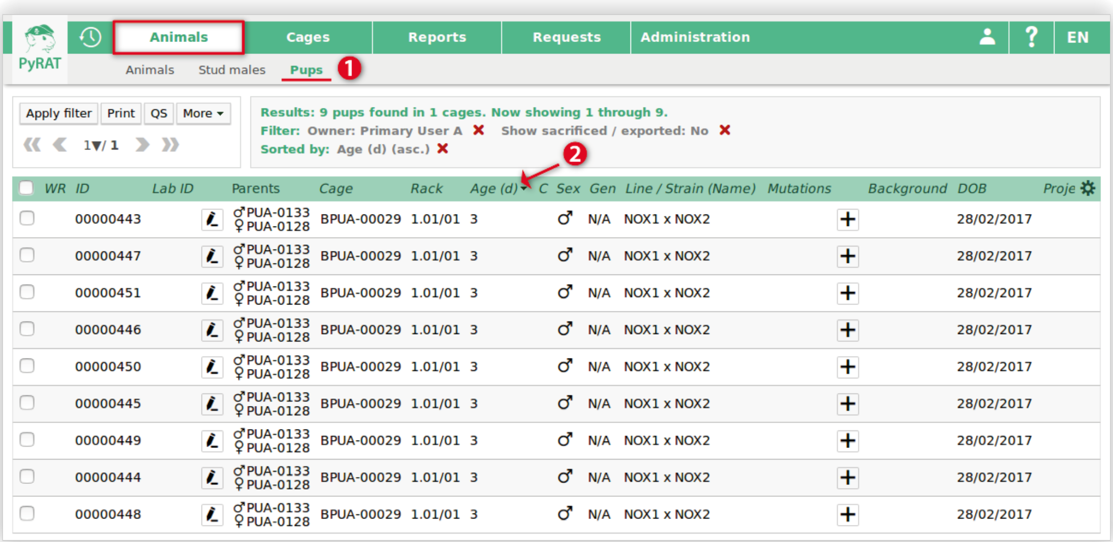
♂ PUA-0010 ♀ PUA-0009 SPUA-00002 SPF.01/04 1065 ♀ N/A IL-10 IL-10 N/A ♀ PUA-0011

Finding Plugged Animals

Cages can also be listed for only Cages with plugged animals and use the Cage detail window as described above.

Finding Pups

In the pups list, births in breeding cages can be checked.



Results: 9 pups found in 1 cages. Now showing 1 through 9.
Filter: Owner: Primary User A ✖ Show sacrificed / exported: No ✖
Sorted by: Age (d) (asc.) ✖

☐	WR	ID	Lab ID	Parents	Cage	Rack	Age (d)	C	Sex	Gen	Line / Strain (Name)	Mutations	Background	DOB	Proje
☐		00000443		♂PUA-0133 ♀PUA-0128	BPUA-00029	1.01/01	3		♂	N/A	NOX1 x NOX2	+		28/02/2017	
☐		00000447		♂PUA-0133 ♀PUA-0128	BPUA-00029	1.01/01	3		♂	N/A	NOX1 x NOX2	+		28/02/2017	
☐		00000451		♂PUA-0133 ♀PUA-0128	BPUA-00029	1.01/01	3		♂	N/A	NOX1 x NOX2	+		28/02/2017	
☐		00000446		♂PUA-0133 ♀PUA-0128	BPUA-00029	1.01/01	3		♂	N/A	NOX1 x NOX2	+		28/02/2017	
☐		00000450		♂PUA-0133 ♀PUA-0128	BPUA-00029	1.01/01	3		♂	N/A	NOX1 x NOX2	+		28/02/2017	
☐		00000445		♂PUA-0133 ♀PUA-0128	BPUA-00029	1.01/01	3		♂	N/A	NOX1 x NOX2	+		28/02/2017	
☐		00000449		♂PUA-0133 ♀PUA-0128	BPUA-00029	1.01/01	3		♂	N/A	NOX1 x NOX2	+		28/02/2017	
☐		00000444		♂PUA-0133 ♀PUA-0128	BPUA-00029	1.01/01	3		♂	N/A	NOX1 x NOX2	+		28/02/2017	
☐		00000448		♂PUA-0133 ♀PUA-0128	BPUA-00029	1.01/01	3		♂	N/A	NOX1 x NOX2	+		28/02/2017	

The Pups List

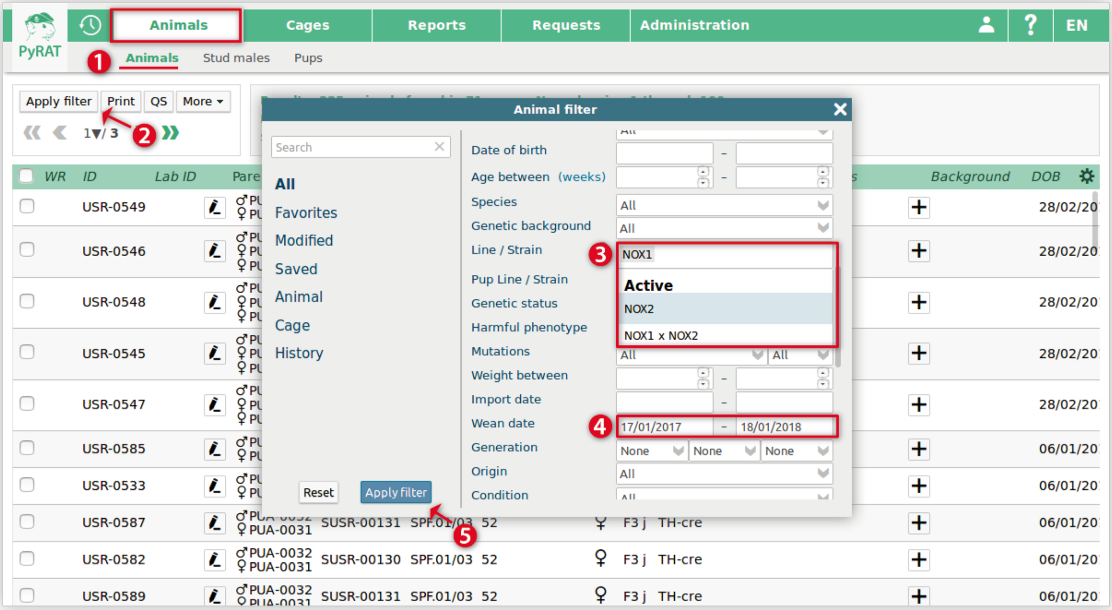
1 Go to the pups list: Animals ▸ Pups.
2 Click the italic Age (d) column label to sort the list by age.

The cage list can also be filtered for only Cages with pups. Then, use the Cage Detail window as described above.

To see all breeding cages with pups, go to: Reports ▸ Caretaking information ▸ Upcoming weanings.

Finding Weaned Animals

When pups are weaned, they are moved into new stock cages. Filter the animal list for the animal’s line/strain and wean date to find them.



Line / Strain: NOX1

Wean date: 17/01/2017 – 18/01/2018

Finding Weaned Animals

1. Go to the animal list: Animals ▸ Animals.
2. To open the Filter options, click Apply Filter.
3. Select the Line / Strain of the weaned animals.
4. Select the Wean date (from/to).
5. Click Apply.

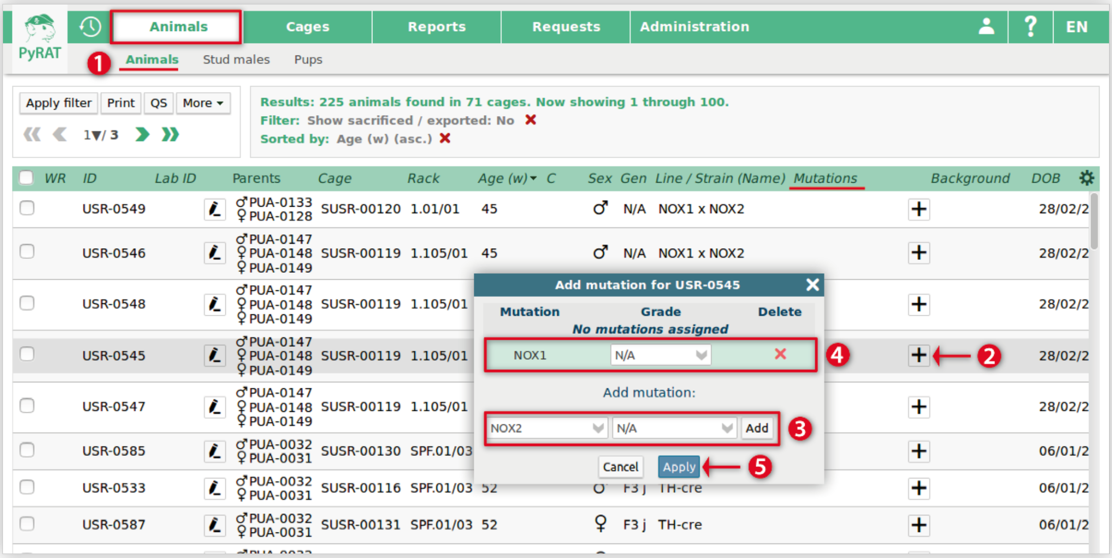
4.7 Modifying Genetic Data: Genotyping

The Mutations column in the animal list shows the genotype of every animal. The + symbol indicates animals for which genotyping has yet to occur or is incomplete.

Genotyping a Single Animal

For a single animal, genotypes can be added directly in the animal list.

1. Go to the animal list. To find a specific animal, click Apply Filter.
2. To open the Add mutation window, click the + symbol in the Mutations column.
3. Select a genotype from the drop-down list and click Add.
4. The added genotype is shown above. Now select and add the remaining genotypes.
5. To assign the selected genotypes to the animal, click Apply. They are now shown in the Mutations column.



Results: 225 animals found in 71 cages. Now showing 1 through 100.
Filter: Show sacrificed / exported: No
Sorted by: Age (w) (asc.)

☐	WR	ID	Lab ID	Parents	Cage	Rack	Age (w)	C	Sex	Gen	Line / Strain (Name)	Mutations	Background	DOB
☐		USR-0549		♂PUA-0133 ♀PUA-0128	SUSR-00120	1.01/01	45		♂	N/A	NOX1 x NOX2	+		28/02/2
☐		USR-0546		♂PUA-0147 ♀PUA-0148 ♀PUA-0149	SUSR-00119	1.105/01	45		♂	N/A	NOX1 x NOX2	+		28/02/2
☐		USR-0548		♂PUA-0147 ♀PUA-0148 ♀PUA-0149	SUSR-00119	1.105/01						+		28/02/2
☐		USR-0545		♂PUA-0147 ♀PUA-0148 ♀PUA-0149	SUSR-00119	1.105/01						+		28/02/2
☐		USR-0547		♂PUA-0147 ♀PUA-0148 ♀PUA-0149	SUSR-00119	1.105/01						+		28/02/2
☐		USR-0585		♂PUA-0032 ♀PUA-0031	SUSR-00130	SPF.01/03						+		06/01/2
☐		USR-0533		♂PUA-0032 ♀PUA-0031	SUSR-00116	SPF.01/03	52		♂	F3 j	TH-cre	+		06/01/2
☐		USR-0587		♂PUA-0032 ♀PUA-0031	SUSR-00131	SPF.01/03	52		♀	F3 j	TH-cre	+		06/01/2

Add mutation for USR-0545

Mutation	Grade	Delete
No mutations assigned		
NOX1	N/A	✕

Add mutation:

NOX2 | N/A | Add

Cancel | Apply

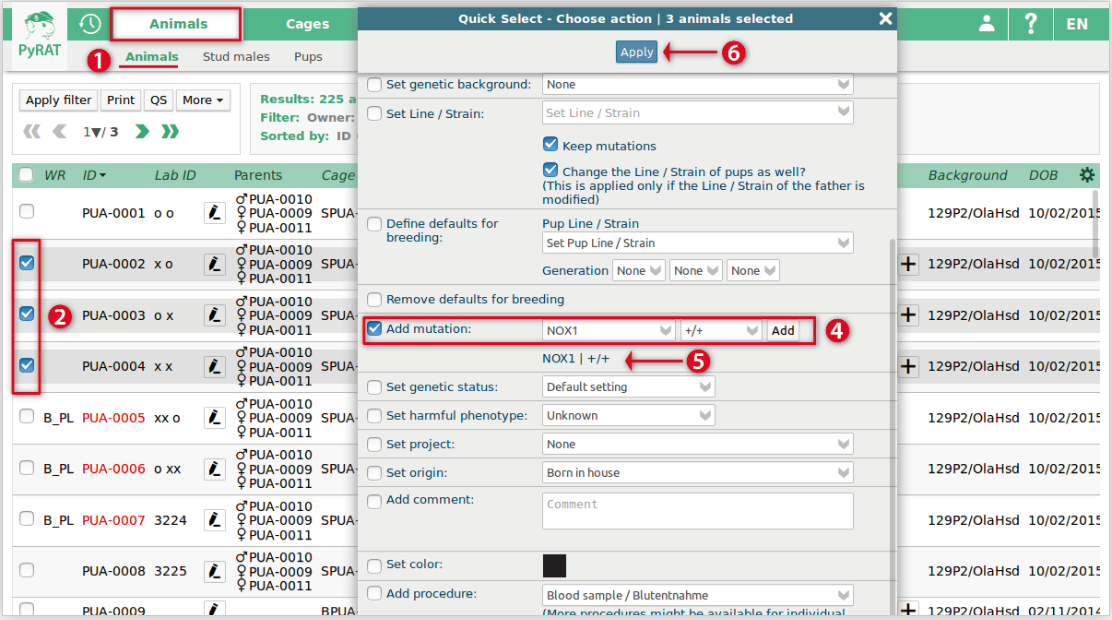
Genotyping a Single Animal

If the assigned genotype must be modified, click the entries in the Mutations column to open the Modify mutation window.

Genotyping a Group of Animals

To add genotypes to a group of animals from the same line, use Quick Select in the animal list:

1 Go to the animal list. To find animals from the same line, click Apply Filter.
2 Select animals from the same line.
3 To open the Quick Select window, click QS.
4 In this window, check the Add mutation box, select a genotype from the drop-down list, and click Add.
5 The added genotype is shown below. Now select and add the remaining genotypes.
6 To assign the selected genotypes to the animals, click Apply.



Quick Select - Choose action | 3 animals selected

☐ Set genetic background: None
☐ Set Line / Strain: Set Line / Strain
☑ Keep mutations
☑ Change the Line / Strain of pups as well? (This is applied only if the Line / Strain of the father is modified)
☐ Define defaults for breeding: Pup Line / Strain: Set Pup Line / Strain; Generation: None None None
☐ Remove defaults for breeding
☑ Add mutation: NOX1 +/+
NOX1 | +/+
☐ Set genetic status: Default setting
☐ Set harmful phenotype: Unknown
☐ Set project: None
☐ Set origin: Born in house
☐ Add comment: Comment
☐ Set color: ■
☐ Add procedure: Blood sample / Blutentnahme

Genotyping a Group of Animals

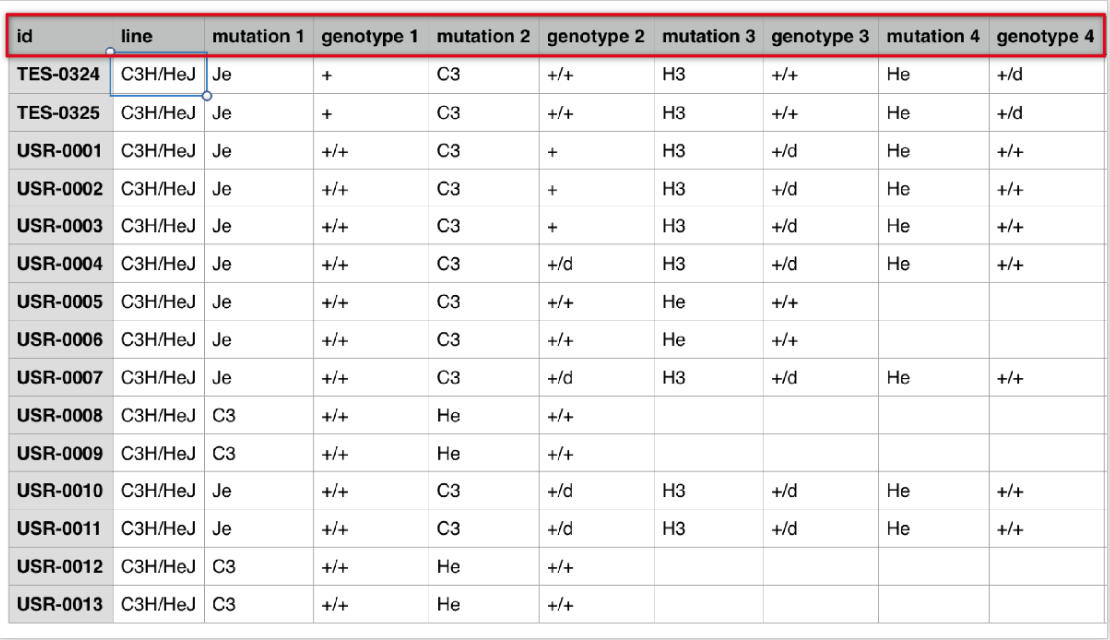
The Quick Select window can be used to modify the genotype of a group of animals as long as they have the same current genotype. To do so, follow steps 1-3, check the Modify mutations box, and modify the genotype. Then click Apply.

Importing Genotyping Results into PyRAT

It is also possible to import a table of genotyping results into PyRAT. New mutations and genotypes are added and existing ones are updated.

For this feature, PyRAT supports importing files in XML. Transnetyx’s genotyping application generates the XML files.

Furthermore, files in CSV format can be imported into PyRAT. This CSV file must contain all the import data and must have the following format:



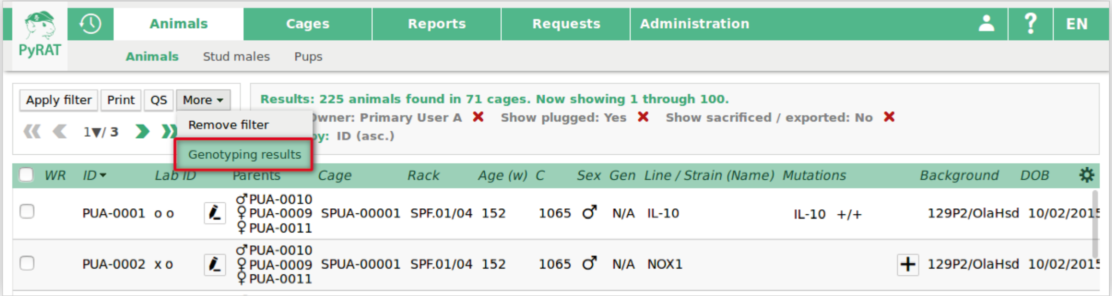
id	line	mutation 1	genotype 1	mutation 2	genotype 2	mutation 3	genotype 3	mutation 4	genotype 4
TES-0324	C3H/HeJ	Je	+	C3	+/+	H3	+/+	He	+/d
TES-0325	C3H/HeJ	Je	+	C3	+/+	H3	+/+	He	+/d
USR-0001	C3H/HeJ	Je	+/+	C3	+	H3	+/d	He	+/+
USR-0002	C3H/HeJ	Je	+/+	C3	+	H3	+/d	He	+/+
USR-0003	C3H/HeJ	Je	+/+	C3	+	H3	+/d	He	+/+
USR-0004	C3H/HeJ	Je	+/+	C3	+/d	H3	+/d	He	+/+
USR-0005	C3H/HeJ	Je	+/+	C3	+/+	He	+/+		
USR-0006	C3H/HeJ	Je	+/+	C3	+/+	He	+/+		
USR-0007	C3H/HeJ	Je	+/+	C3	+/d	H3	+/d	He	+/+
USR-0008	C3H/HeJ	C3	+/+	He	+/+				
USR-0009	C3H/HeJ	C3	+/+	He	+/+				
USR-0010	C3H/HeJ	Je	+/+	C3	+/d	H3	+/d	He	+/+
USR-0011	C3H/HeJ	Je	+/+	C3	+/d	H3	+/d	He	+/+
USR-0012	C3H/HeJ	C3	+/+	He	+/+				
USR-0013	C3H/HeJ	C3	+/+	He	+/+				

Required Format of the Import File

Animals are listed in the “id” column, and their lines/strains are listed in the “line” column. In the following columns, every animals’ imported mutations and genotypes are recorded: “mutation 1,” “genotype 1,”mutation 2“,”genotype 2,” “mutation 3,” “genotype 3,” “mutation 4,” “genotype 4,” etc. More columns for mutations and genotypes can be generated when needed.

Be sure to format the table in this form, using the exact column labels, otherwise the file cannot be uploaded into PyRAT.

To upload the file into PyRAT, follow the steps below.



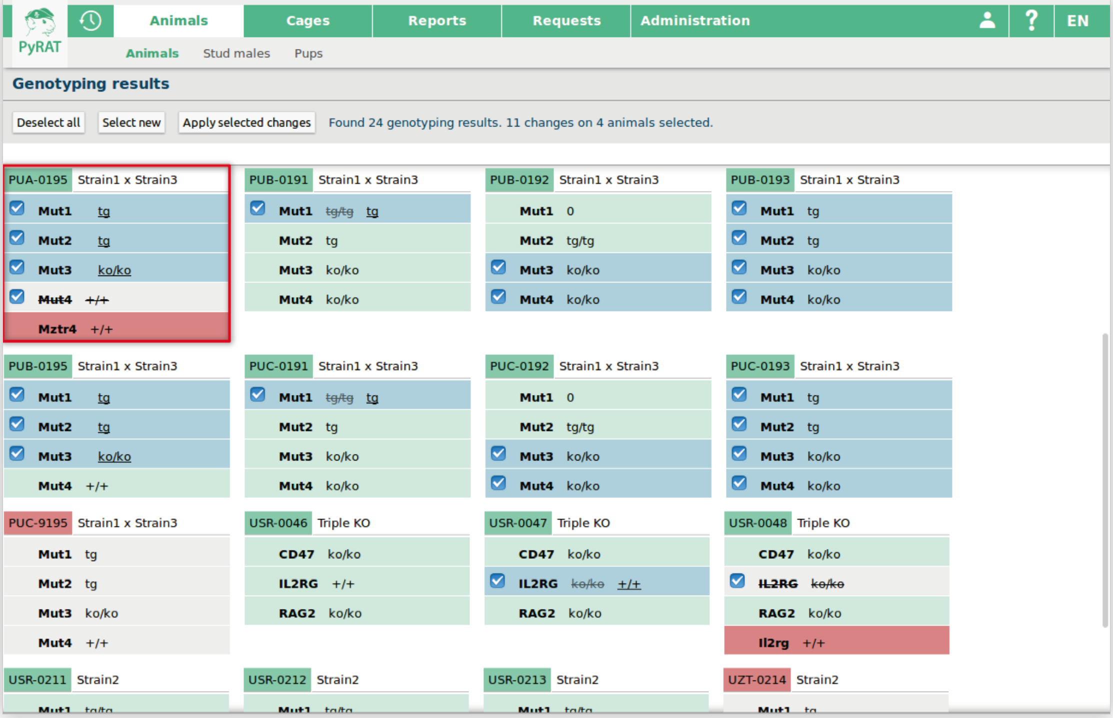
Results: 225 animals found in 71 cages. Now showing 1 through 100.
wner: Primary User A ✖ Show plugged: Yes ✖ Show sacrificed / exported: No ✖
y: ID (asc.)

☐	WR	ID▾	Lab ID	Parents	Cage	Rack	Age (w)	C	Sex	Gen	Line / Strain (Name)	Mutations	Background	DOB
☐		PUA-0001 o o		♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	152	1065	♂	N/A	IL-10	IL-10 +/+	129P2/OlaHsd	10/02/201
☐		PUA-0002 x o		♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	152	1065	♂	N/A	NOX1	+	129P2/OlaHsd	10/02/201

Opening the Import Window

1 Go to the animal list.
2 Place the mouse cursor over More.
3 To open the import page, click Genotyping results in the pop-up window.
4 On the import page, click Browse... and select the CSV or XML import file.
5 Click Upload.

The genotyping results are uploaded and shown on the import page.



Genotyping results

Found 24 genotyping results. 11 changes on 4 animals selected.

PUA-0195 Strain1 x Strain3
☑ **Mut1** tg
☑ **Mut2** tg
☑ **Mut3** ko/ko
☑ ~~**Mut4** +/+~~
Mztr4 +/+

PUB-0191 Strain1 x Strain3
☑ **Mut1** ~~tg/tg~~ tg
Mut2 tg
Mut3 ko/ko
Mut4 ko/ko

PUB-0192 Strain1 x Strain3
Mut1 0
Mut2 tg/tg
☑ **Mut3** ko/ko
☑ **Mut4** ko/ko

PUB-0193 Strain1 x Strain3
☑ **Mut1** tg
☑ **Mut2** tg
☑ **Mut3** ko/ko
☑ **Mut4** ko/ko

PUB-0195 Strain1 x Strain3
☑ **Mut1** tg
☑ **Mut2** tg
☑ **Mut3** ko/ko
Mut4 +/+

PUC-0191 Strain1 x Strain3
☑ **Mut1** ~~tg/tg~~ tg
Mut2 tg
Mut3 ko/ko
Mut4 ko/ko

PUC-0192 Strain1 x Strain3
Mut1 0
Mut2 tg/tg
☑ **Mut3** ko/ko
☑ **Mut4** ko/ko

PUC-0193 Strain1 x Strain3
☑ **Mut1** tg
☑ **Mut2** tg
☑ **Mut3** ko/ko
☑ **Mut4** ko/ko

PUC-9195 Strain1 x Strain3
Mut1 tg
Mut2 tg
Mut3 ko/ko
Mut4 +/+

USR-0046 Triple KO
CD47 ko/ko
IL2RG +/+
RAG2 ko/ko

USR-0047 Triple KO
CD47 ko/ko
☑ **IL2RG** ~~ko/ko~~ +/+
RAG2 ko/ko

USR-0048 Triple KO
CD47 ko/ko
☑ ~~**IL2RG** ko/ko~~
RAG2 ko/ko
Il2rg +/+

USR-0211 Strain2

USR-0212 Strain2

USR-0213 Strain2

UZT-0214 Strain2

Genotyping Results After the Upload

The imported mutations and genotypes are shown separated by animal. The name of the line/strain is next to the animal ID. The mutations with the corresponding genotypes meant for import are listed below.

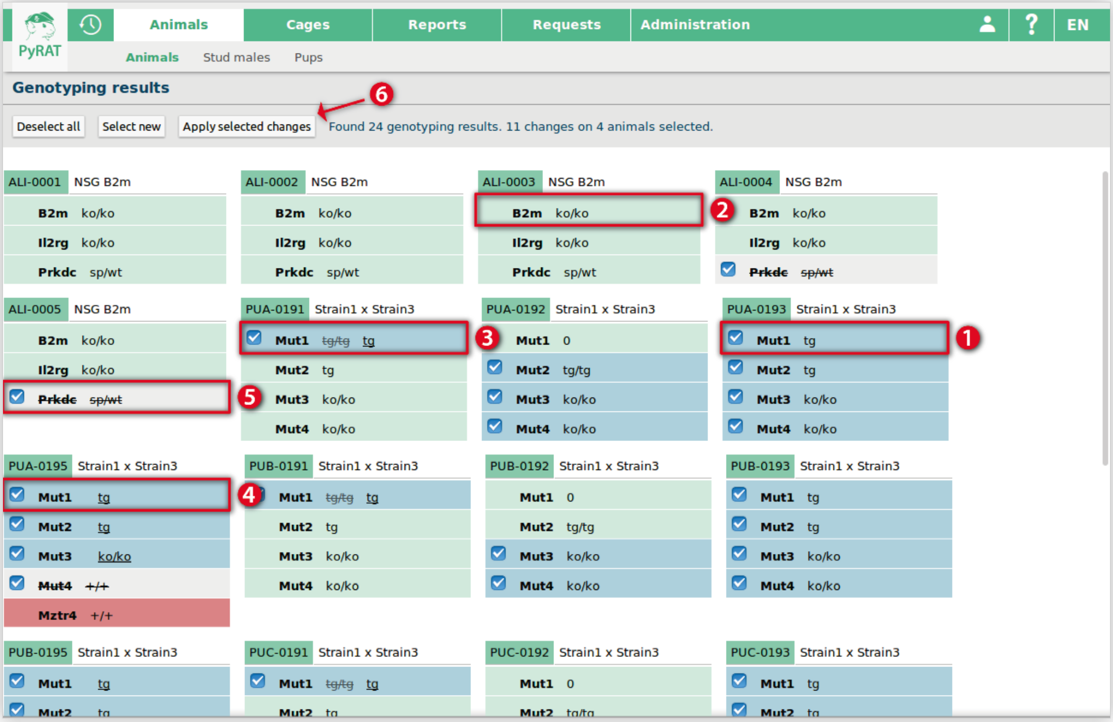
Animal data (animal IDs, lines/strains, mutations, genotypes) must have already been set up before the import. Animal data that PyRAT could not find are underlined in red. If this is the case, check whether all required animal properties were set up correctly in PyRAT.

(1) If a mutation with the corresponding genotype is underlined in red, then check:

1. Whether the mutation and genotype are available in PyRAT (Administration ▸ Animal properties ▸ Mutations/Genotypes). If needed, set up the required Mutation types.
2. Whether the mutation for the line/strain of the particular animal has also been assigned in PyRAT.

(2) When an animal ID is underlined in red, check whether this animal ID is available in PyRAT and whether it matches the ID that is to be imported.

If all data has been checked, the import can be finished.



Genotyping results

Found 24 genotyping results. 11 changes on 4 animals selected.

ALI-0001 NSG B2m
B2m ko/ko
Il2rg ko/ko
Prkdc sp/wt

ALI-0002 NSG B2m
B2m ko/ko
Il2rg ko/ko
Prkdc sp/wt

ALI-0003 NSG B2m
B2m ko/ko
Il2rg ko/ko
Prkdc sp/wt

ALI-0004 NSG B2m
B2m ko/ko
Il2rg ko/ko
☑ ~~Prkdc sp/wt~~

ALI-0005 NSG B2m
B2m ko/ko
Il2rg ko/ko
☑ ~~Prkdc sp/wt~~

PUA-0191 Strain1 x Strain3
☑ Mut1 ~~tg/tg~~ tg
Mut2 tg
Mut3 ko/ko
Mut4 ko/ko

PUA-0192 Strain1 x Strain3
Mut1 0
☑ Mut2 tg/tg
☑ Mut3 ko/ko
☑ Mut4 ko/ko

PUA-0193 Strain1 x Strain3
☑ Mut1 tg
☑ Mut2 tg
☑ Mut3 ko/ko
☑ Mut4 ko/ko

PUA-0195 Strain1 x Strain3
☑ Mut1 tg
☑ Mut2 tg
☑ Mut3 ko/ko
☑ ~~Mut4 +/+~~
Mztr4 +/+

PUB-0191 Strain1 x Strain3
☑ Mut1 ~~tg/tg~~ tg
Mut2 tg
Mut3 ko/ko
Mut4 ko/ko

PUB-0192 Strain1 x Strain3
Mut1 0
Mut2 tg/tg
☑ Mut3 ko/ko
☑ Mut4 ko/ko

PUB-0193 Strain1 x Strain3
☑ Mut1 tg
☑ Mut2 tg
☑ Mut3 ko/ko
☑ Mut4 ko/ko

PUB-0195 Strain1 x Strain3
☑ Mut1 tg
☑ Mut2 tg

PUC-0191 Strain1 x Strain3
☑ Mut1 ~~tg/tg~~ tg
Mut2 tg

PUC-0192 Strain1 x Strain3
Mut1 0
Mut2 tg/tg

PUC-0193 Strain1 x Strain3
☑ Mut1 tg
☑ Mut2 tg

Importing Genotyping Results

1. To import the mutation (including the genotype) shown on the list, check the box next to it.
2. Mutations from the import file, which have already been assigned to an animal in PyRAT, are highlighted in green and shown without a checkbox.
3. If the mutation from the import file is already assigned to the animal, but with a different genotype, the genotype already assigned is struck through, and the genotype from the import file is underlined. To replace the assigned genotype with the genotype from the import file, check the box.
4. If the mutation from the import file is already assigned to the animal, but without a genotype, the genotype from the import file is underlined. To import the genotype from the import file, check the box.
5. If an animal was already assigned a mutation, which does not match the mutation in the import files, it is struck through on a light-gray background. To remove this genotyping during the import, check the box.
6. To replace the mutations and grades of all animals with the data from the import file, click on Select all. (Mutations that are assigned to the animals but not content of the import file, will be deleted.)

   To add only new mutations and grades, click on Select new. (Mutations that are assigned to animals but not content of the import file, will remain unmodified.)

   To save these changes, click Apply selected changes.

Animal Property: Genetic Status

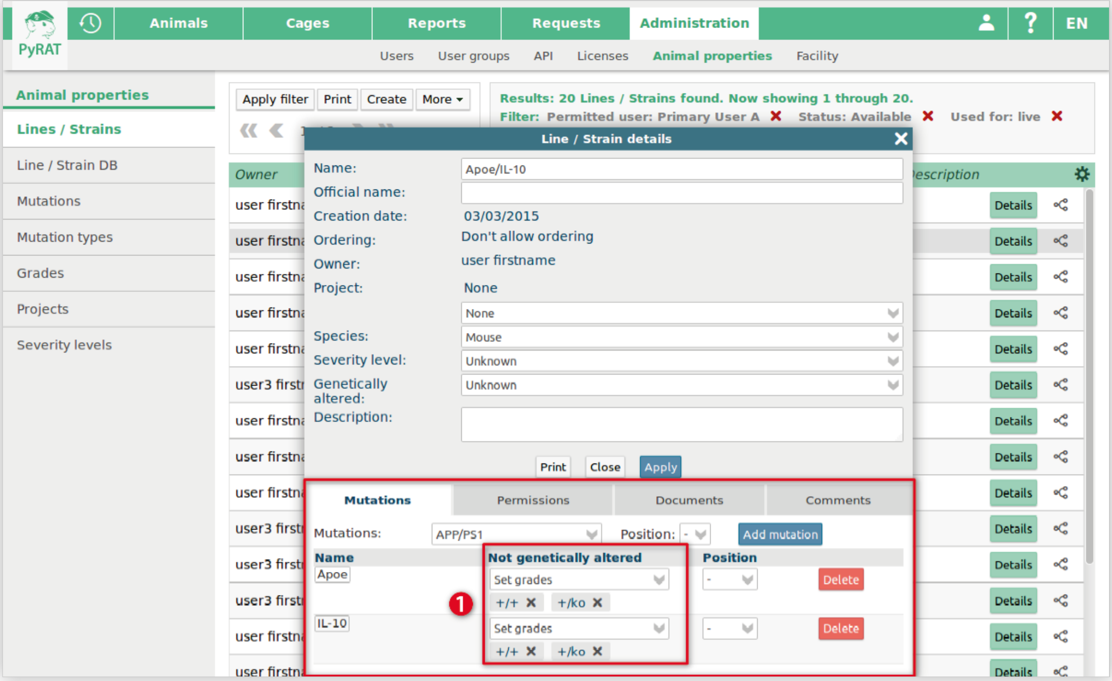
The property, "Genetic status," shows whether an animal, due to its genotyping, is classified as genetically altered. This information is needed to record the animal in the EU animal statistical report. PyRAT lets an animal have one of the following genetic statuses:

- Unknown
- Not altered
- Altered

The line, mutation, and genotype information shows whether an animal is genetically altered. For a line, each combination of mutation and grade must be defined as "altered" or "not altered." If "Line 1" has the mutations "mut1" and "mut 2," for example, it could look like this:

Mutation	Grade	Genetic Status
mut1	+/+	*not altered*
mut1	+/ko	*not altered*
mut1	ko/ko	altered
mut2	0	*not altered*
mut2	tg	altered
mut2	tg/tg	altered

Administrators can maintain the combinations of mutation/grade classified as "not altered" for each line. This allows the "genetic status" to be automatically determined.



Results: 20 Lines / Strains found. Now showing 1 through 20.
Filter: Permitted user: Primary User A Status: Available Used for: live

Name: Apoe/IL-10
Official name:
Creation date: 03/03/2015
Ordering: Don't allow ordering
Owner: user firstname
Project: None
None
Species: Mouse
Severity level: Unknown
Genetically altered: Unknown
Description:

Mutations: APP/PS1 Position: -

Name	Not genetically altered	Position
Apoe	Set grades +/+ +/ko	-
IL-10	Set grades +/+ +/ko	-

Specifying Not Genetically Altered Combinations of Mutation and Grade

For more information, see the Getting Started Guide for Administrators.

An animal has an “unknown” genetic status if:

- All defined mutations are not recorded for the animal
- Or all defined mutations are recorded, but a grade has not been selected for them

An animal has an “altered” genetic status if:

- All defined mutations are recorded
- A grade has been selected for each recorded mutation
- And at least one of the selected combinations of mutation and grade is defined as “genetically changed”

All other animals have a “not altered” genetic status.

If the combinations of mutation/grade classified as “not altered” are not maintained for a line, the genetic status of animals can be set manually.

1. Select one or more animals or pups from the animal or pup list and click QS.
2. In the QS menu, select the desired genetic status from the Set genetic status drop-down list.
3. Click Apply at the top of the QS menu.

A new Genetic status column is now available in the animal and pup lists. The new Genetic status option filters both lists by the genetic status of the animals.

> “Default setting” means that the genetic status is calculated automatically based on the genotyping results.

Animal Property: Harmful Phenotype

The property, “Harmful phenotype”, defines whether an animal or a pup has a harmful phenotype or not. The default value is “Unknown”.

1. Select one or more animals or pups form the animal or pup list and click QS.
2. In the QS menu, select the desired value from the Set harmful phenotype drop-down list.
3. Click Apply at the top of the QS menu.

A new Harmful phenotype column is now available in the animal and pup lists. The new Harmful phenotype option filters both lists by the genetic status of the animals.

> “Harmful phenotype is included in the calculation of the EU statistics report.

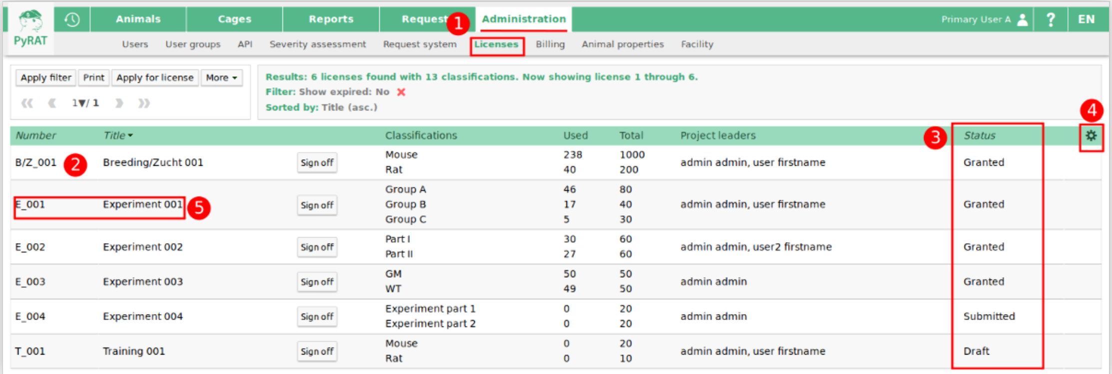
4.8 Authorizations for Animals

In PyRAT, authorizations to breed, stock, and experiment with animals are called licenses. To assign a license to an animal, the license must either be already available or it must be applied for. Below is a short introduction explaining how to check for available licenses, how to assign a license to an animal, and how to apply for a new license.

> PyRAT's new license system is thoroughly described in a separate, compact help file. To open it, click the Help button in the top-right corner of the screen and select The license system from the drop-down list.

Checking for Available Licenses

To see all licenses and license applications, go to the license list.

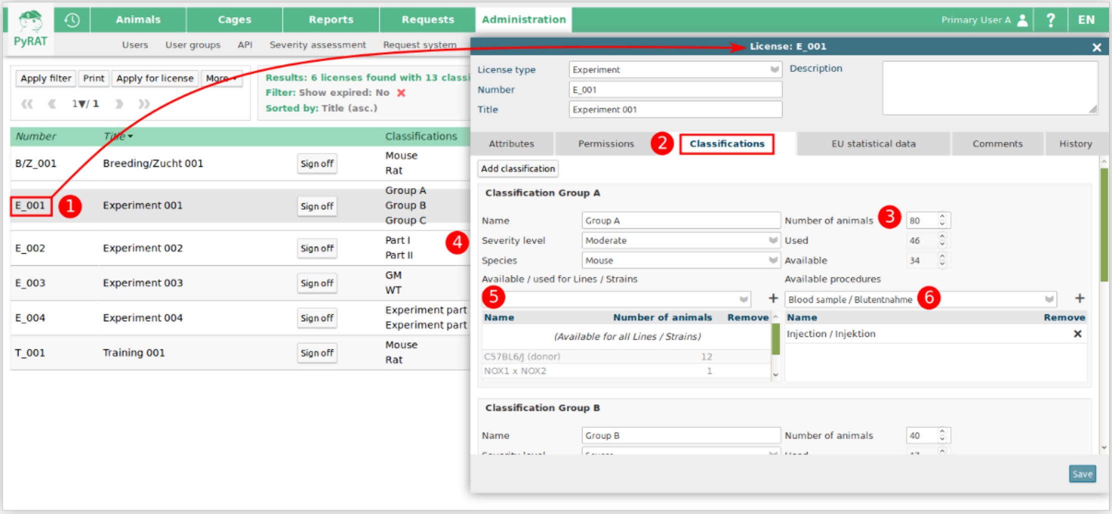


Results: 6 licenses found with 13 classifications. Now showing license 1 through 6.
Filter: Show expired: No ✖
Sorted by: Title (asc.)

Number	Title ▾		Classifications	Used	Total	Project leaders	Status
B/Z_001	Breeding/Zucht 001	Sign off	Mouse Rat	238 40	1000 200	admin admin, user firstname	Granted
E_001	Experiment 001	Sign off	Group A Group B Group C	46 17 5	80 40 30	admin admin, user firstname	Granted
E_002	Experiment 002	Sign off	Part I Part II	30 27	60 60	admin admin, user2 firstname	Granted
E_003	Experiment 003	Sign off	GM WT	50 49	50 50	admin admin	Granted
E_004	Experiment 004	Sign off	Experiment part 1 Experiment part 2	0 0	20 20	admin admin	Submitted
T_001	Training 001	Sign off	Mouse Rat	0 0	20 10	admin admin, user firstname	Draft

The License List

1. Go to: Administration ▸ Licenses. Licenses and license applications are shown in the list.
2. Each row shows one license with its Number, Title, Classifications, for how many animals it already has been used (Used) and for how many animals it can be used for (Total). Also, the Project leaders are shown in the default view.
3. The Status indicates whether a license is available. During the setup of a license application, its status is Draft. During the sign-off process, the status is Submitted. An approved and available license has the status Granted.
4. Users can customize their views by adding or removing columns in the lists by clicking the gear symbol at the top right as previously explained in section Customizing the List.
5. To open its details, click the Number or the Title of a license.



Results: 6 licenses found with 13 classi
Filter: Show expired: No
Sorted by: Title (asc.)

Number	Title		Classifications
B/Z_001	Breeding/Zucht 001	Sign off	Mouse Rat
E_001	Experiment 001	Sign off	Group A Group B Group C
E_002	Experiment 002	Sign off	Part I Part II
E_003	Experiment 003	Sign off	GM WT
E_004	Experiment 004	Sign off	Experiment part Experiment part
T_001	Training 001	Sign off	Mouse Rat

License: E_001

License type: Experiment
Number: E_001
Title: Experiment 001
Description:

Classification Group A

Name: Group A
Severity level: Moderate
Species: Mouse
Number of animals: 80
Used: 46
Available: 34

Available / used for Lines / Strains

Name	Number of animals	Remove
(Available for all Lines / Strains)		
C57BL6/J (donor)	12	
NOX1 x NOX2	1	

Available procedures: Blood sample / Blutentnahme

Name	Remove
Injection / Injektion	×

Classification Group B

Name: Group B
Number of animals: 40

The License Details

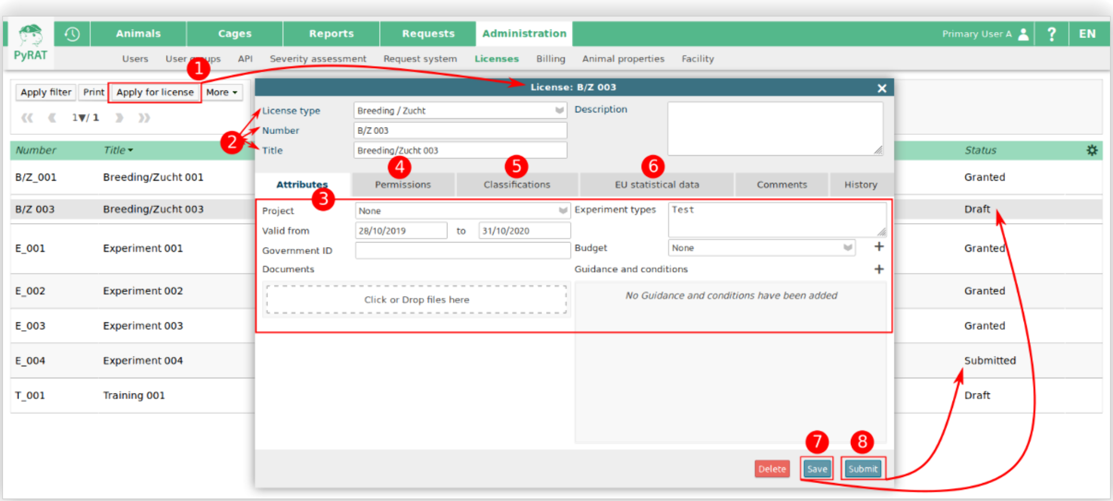
To open the license details, click the Number or the Title of a license **(1)**. Click the Classifications tab **(2)** to see the license details that where when the license was created, for example the Number of Animals **(3)** allowed, where the number of animals Used / Available is calculated automatically as soon as the license is assigned to an animal, the expected Severity level **(4)**, and the Procedures **(5)** allowed. The listing in Lines / Strains **(6)** (i.e., how many animals per line/strain) is also done automatically when the license is assigned to an animal.

By default, only valid licenses are shown in the license list. To see expired licenses, use Apply Filter.

Applying for a New License

If a particular license is not available, it can be applied for.

1 Go to: Administration ▸ Licenses. To open the Apply for License window, click Apply for License.
2 Enter the License type, Number, and Title. If needed, enter a Description.
3 In the Attributes tab, set period of validity and Experiment types. If needed, upload Files.
4 In the Permissions tab, select Project Leaders and Users.
5 In the Classifications tab, the subgroups for a license can be created and specified. A detailed description is provided below Classifications of a New License.
6 The EU statistical data tab allows information for the EU statistical report to be stored. A detailed description is provided below Data for the EU Statistical Report.
7 To save your entries, click Save. This changes the application's status to Draft.
8 After all license data has been entered, click Submit. This releases the draft for the sign-off process, changing the application's status to Submitted. When all users responsible for signing off have given their approval, the application's status changes to Granted. The license can now be used.

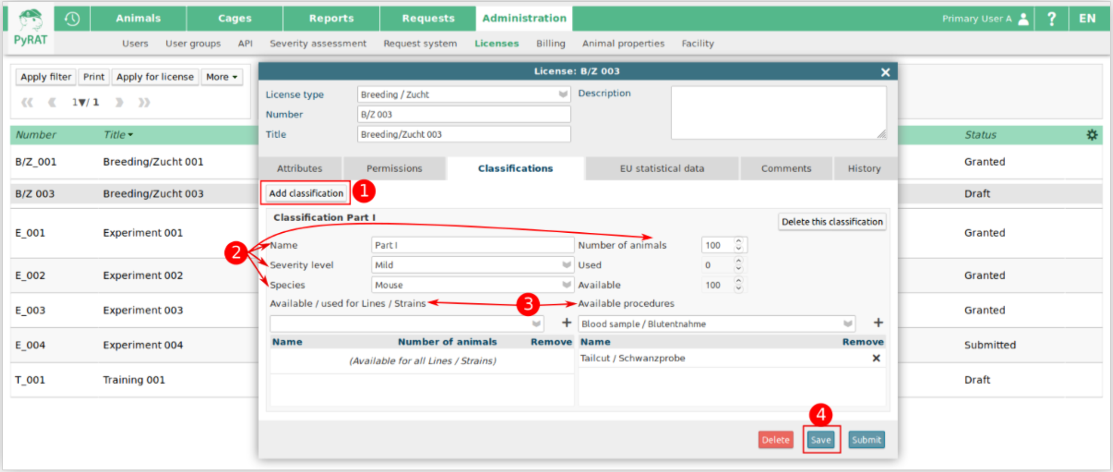


Number	Title	Status
B/Z_001	Breeding/Zucht 001	Granted
B/Z 003	Breeding/Zucht 003	Draft
E_001	Experiment 001	Granted
E_002	Experiment 002	Granted
E_003	Experiment 003	Granted
E_004	Experiment 004	Submitted
T_001	Training 001	Draft

License: B/Z 003

License type: Breeding / Zucht
Number: B/Z 003
Title: Breeding/Zucht 003
Description:
Project: None
Valid from: 28/10/2019 to 31/10/2020
Government ID:
Documents
Experiment types: Test
Budget: None
Guidance and conditions
No Guidance and conditions have been added

New License Attributes



Number	Title	Status
B/Z_001	Breeding/Zucht 001	Granted
B/Z 003	Breeding/Zucht 003	Draft
E_001	Experiment 001	Granted
E_002	Experiment 002	Granted
E_003	Experiment 003	Granted
E_004	Experiment 004	Submitted
T_001	Training 001	Draft

License: B/Z 003

License type: Breeding / Zucht
Number: B/Z 003
Title: Breeding/Zucht 003
Description:

Classification Part I

Name: Part I
Severity level: Mild
Species: Mouse
Number of animals: 100
Used: 0
Available: 100

Available / used for Lines / Strains

Name	Number of animals	Remove
(Available for all Lines / Strains)		

Available procedures: Blood sample / Blutentnahme

Name	Remove
Tailcut / Schwanzprobe	×

Classifications of a New License

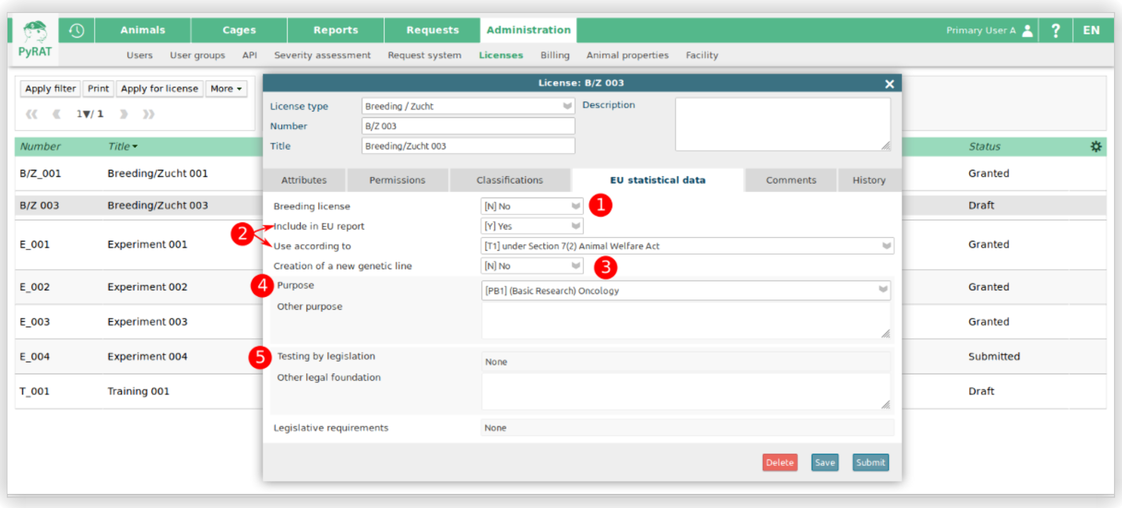
1 To create a new subgroup, click Add classification.

2 Enter the Name (Classification will be added before it automatically), Species, required Number of Animals, and the expected Severity level.

3 If needed, add Lines / Strains for which the license should be available as well as Procedures from the drop-down list.

4 Click Save. If no sign-off process is required at your facility, the license automatically gets a Granted status and can be used. If signing off on licenses is mandatory at your facility, the license gets a Draft status. As a draft, the application can still be modified.

To assign attributes to the application prior to their approval during the sign-off process, Administrators and users responsible for signing off can use the Comments and Attributes ▸ Guidance and conditions tabs in the View License window.



Number	Title	Status
B/Z_001	Breeding/Zucht 001	Granted
B/Z 003	Breeding/Zucht 003	Draft
E_001	Experiment 001	Granted
E_002	Experiment 002	Granted
E_003	Experiment 003	Granted
E_004	Experiment 004	Submitted
T_001	Training 001	Draft

License: B/Z 003

License type: Breeding / Zucht
Number: B/Z 003
Title: Breeding/Zucht 003
Description:

Breeding license: [N] No
Include in EU report: [Y] Yes
Use according to: [T1] under Section 7(2) Animal Welfare Act
Creation of a new genetic line: [N] No
Purpose: [PB1] (Basic Research) Oncology
Other purpose:
Testing by legislation: None
Other legal foundation:
Legislative requirements: None

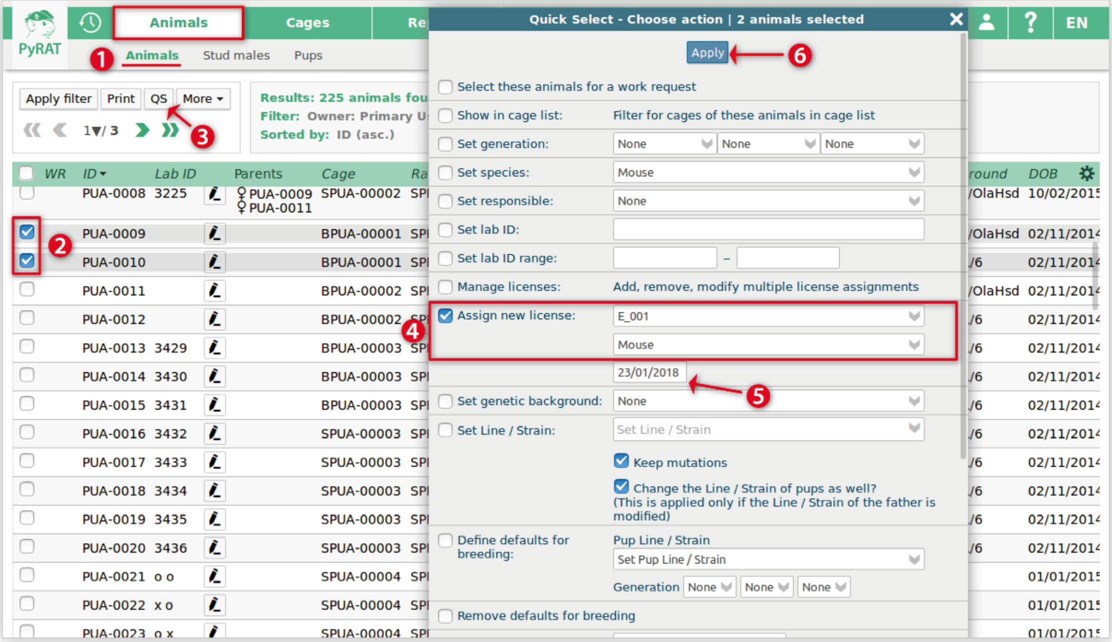
Data for the EU Statistical Report

1. Specify if it is a breeding license. Animals in breeding licenses are not classified as reused in a subsequent license.
2. Choose whether the license should be a part of the EU report and which part of the law applies to it.
3. Select whether a new genetic line will be created.
4. Choose the purpose of the license. “Regulator use” can only be selected if a new line is not being created (see step 3).
5. If a “Regulator use” has been chosen, “Testing by legislation” can then be selected.

Assigning a License to an Animal

To assign a license to one or more animals, use QS.

1. Go to the animal list. If needed, filter the list for animals without licenses.
2. To assign a license to specific animals, select them from the list.
3. To open the Quick Select window, click QS.
4. In this window, check the Assign new license box. Select a license from the upper drop-down list and a classification from the lower drop-down list.
5. If necessary, select the date when the animals went into the experiment, breeding, etc.
6. Click Apply. The new license is inserted into the license history of all the selected animals.



Quick Select - Choose action | 2 animals selected

Apply

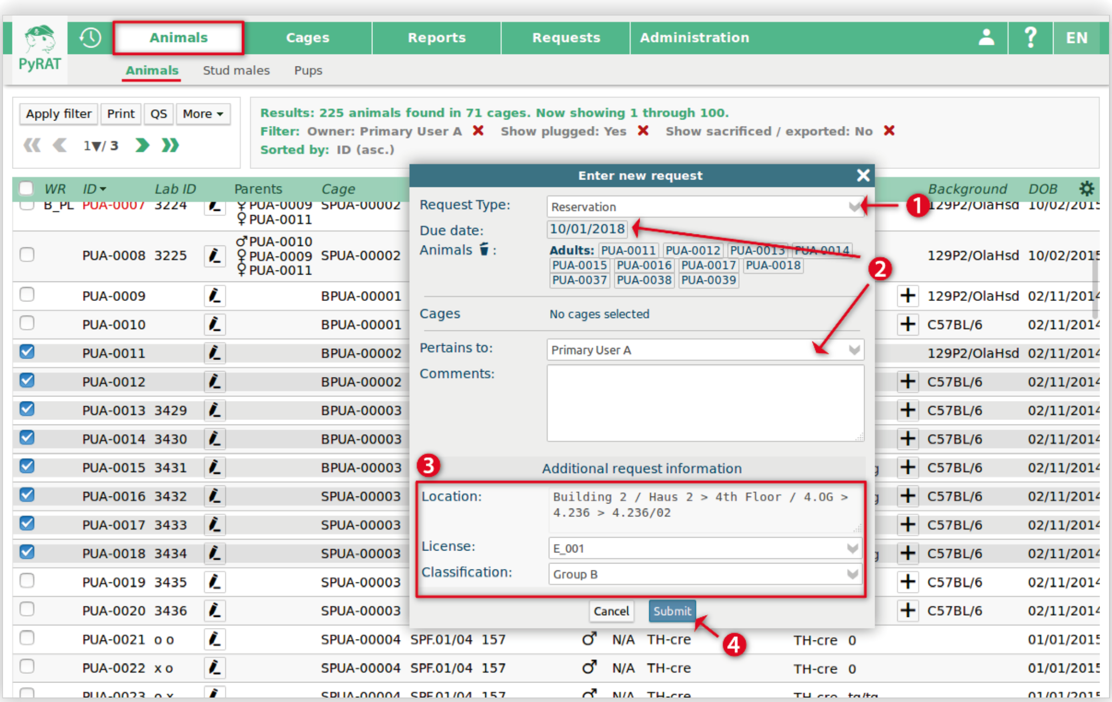
☐ Select these animals for a work request
☐ Show in cage list: Filter for cages of these animals in cage list
☐ Set generation: None None None
☐ Set species: Mouse
☐ Set responsible: None
☐ Set lab ID:
☐ Set lab ID range: –
☐ Manage licenses: Add, remove, modify multiple license assignments
☑ Assign new license: E_001 Mouse 23/01/2018
☐ Set genetic background: None
☐ Set Line / Strain: Set Line / Strain
☑ Keep mutations
☑ Change the Line / Strain of pups as well? (This is applied only if the Line / Strain of the father is modified)
☐ Define defaults for breeding: Pup Line / Strain Set Pup Line / Strain Generation None None None
☐ Remove defaults for breeding

Assigning a License

To modify the license for a group of animals with the same license history, go to the QS window, check the Manage licenses box, and click Apply. Enter your changes in the Set License window. To save them, click Apply.

4.9 Reserving Animals for an Experiment

With a reservation work request, users can reserve specific animals for an experiment. A reservation work request is created in a similar way as a breeding work request. To select the animals and to open the Enter new request window,follow steps 1-4 as described in the paragraph above Creating a Work Request for a Breeding. Then do the following:



Results: 225 animals found in 71 cages. Now showing 1 through 100.
Filter: Owner: Primary User A ✕ Show plugged: Yes ✕ Show sacrificed / exported: No ✕
Sorted by: ID (asc.)

Enter new request

Request Type: Reservation
Due date: 10/01/2018
Animals: **Adults:** PUA-0011 PUA-0012 PUA-0013 PUA-0014 PUA-0015 PUA-0016 PUA-0017 PUA-0018 PUA-0037 PUA-0038 PUA-0039
Cages: No cages selected
Pertains to: Primary User A
Comments:

Additional request information

Location: Building 2 / Haus 2 > 4th Floor / 4.OG > 4.236 > 4.236/02
License: E_001
Classification: Group B

Reservation Work Request

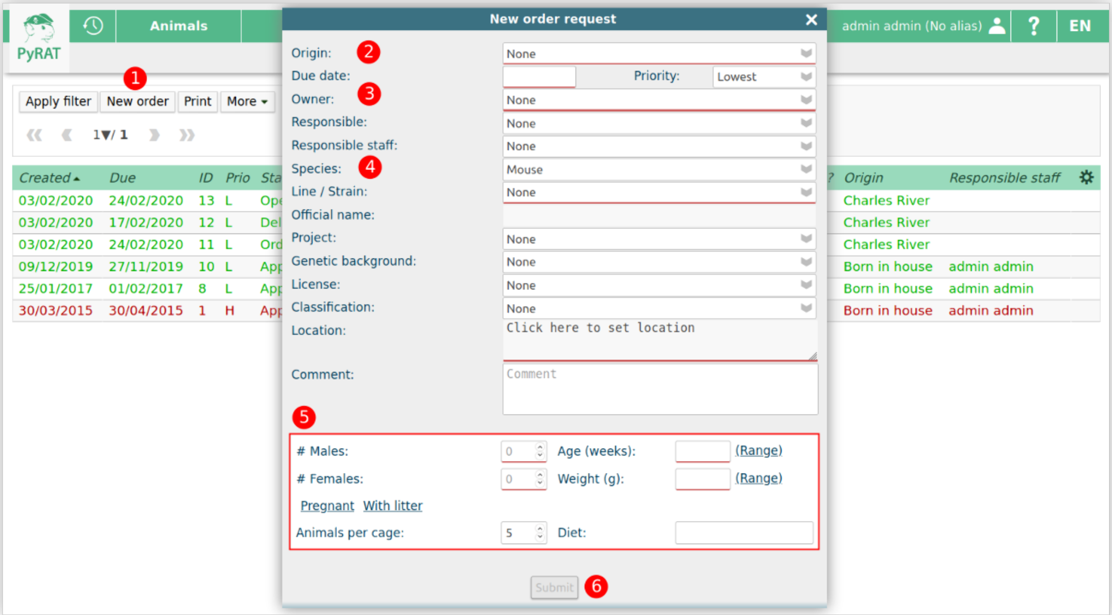
1 In the Enter new request window, select “Reservation” as the Request Type.
2 If necessary, change the Due date or the Pertains to field.
3 Enter a Location and select a License and its Classification for the reserved animals.
4 Click Submit.

If specific animals (IDs) are required for an experiment, a reservation work request should be used to reserve them. In the case that non-specific animals with certain criteria (weight, line, age, etc.) are required, they should be reserved by using an internal order (see the following section).

4.10 Ordering Animals

Animals can be ordered either internally from the facility’s own breeding pool or externally from outside the facility. Go to Requests ▸ Order requests to see all active order requests. Click Apply Filter and change the Status to see inactive order requests. Entries in the list are colored differently according to their priority. Click an entry in the order request list to see its details.

To create a new order use the following steps:



Created	Due	ID	Prio	Sta	Origin	Responsible staff
03/02/2020	24/02/2020	13	L	Ope	Charles River	
03/02/2020	17/02/2020	12	L	Del	Charles River	
03/02/2020	24/02/2020	11	L	Ord	Charles River	
09/12/2019	27/11/2019	10	L	App	Born in house	admin admin
25/01/2017	01/02/2017	8	L	App	Born in house	admin admin
30/03/2015	30/04/2015	1	H	App	Born in house	admin admin

Origin: None
Due date:
Priority: Lowest
Owner: None
Responsible: None
Responsible staff: None
Species: Mouse
Line / Strain: None
Official name:
Project: None
Genetic background: None
License: None
Classification: None
Location: Click here to set location
Comment: Comment
Males: 0
Age (weeks):
Females: 0
Weight (g):
Animals per cage: 5
Diet:

Ordering an Animal

1 Go to: Requests ▸ Order requests. Click New order.
2 Select the Origin of the animals to be ordered - “Born in house” for internal orders or the name of another facility for external orders.
3 Select a Due date and the future Owner of the animals.
4 Select a Species and a corresponding Line / Strain.
5 Enter the number of animals according to their sex, as well as their Age (weeks) **or** their Weight (g). Both can be set as range, too. If necessary, change the animal per cage ratio. It is also possible to order pregnant animals or mothers with their litter. For internal order this option is unavailable, but it is possible to order animals with unspecified sex.

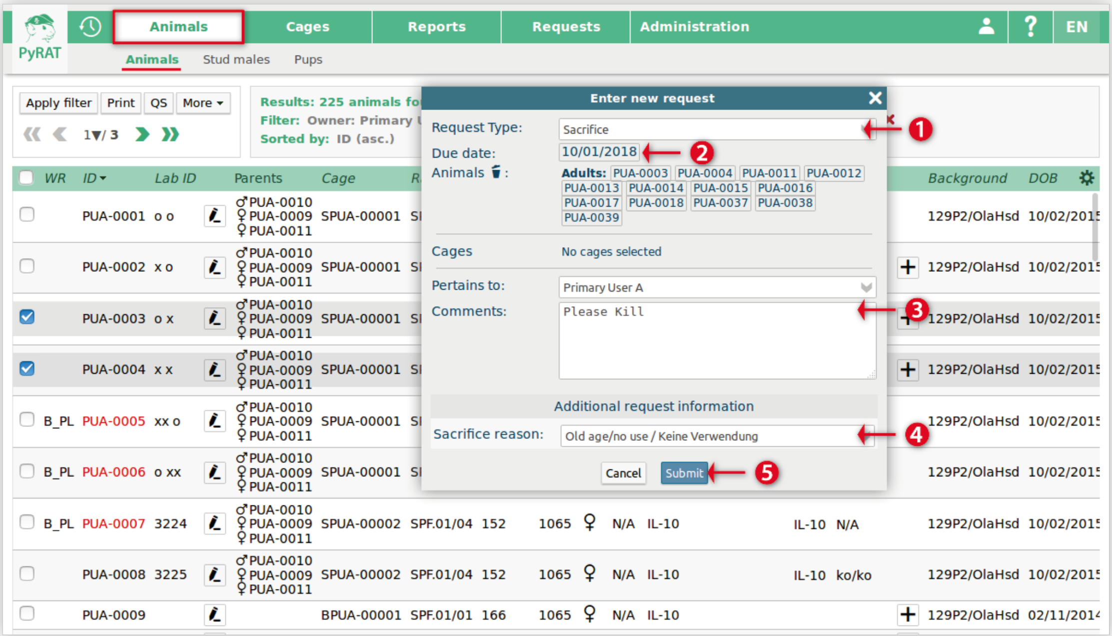
6 Click Submit. The order is added to the order request list with the Status “Open.” After the order is approved, an Administrator or an Animal Facility Staff Member can carry it out.

One of the PyRAT Administrators at your facility enters the names of external facilities.

The Responsible is usually the initiator of the order request. The Responsible Staff is preselected based on how your facility set up the request system.

4.11 Creating a Work Request for a Sacrifice

To select the animals and to open the Enter new request window, follow steps 1-4 as described in the paragraph Creating a Work Request for a Breeding. Then proceed do the following:



Request Type: Sacrifice
Due date: 10/01/2018
Animals: Adults: PUA-0003 PUA-0004 PUA-0011 PUA-0012 PUA-0013 PUA-0014 PUA-0015 PUA-0016 PUA-0017 PUA-0018 PUA-0037 PUA-0038 PUA-0039
Cages: No cages selected
Pertains to: Primary User A
Comments: Please Kill
Sacrifice reason: Old age/no use / Keine Verwendung

Creating a Work Request for a Sacrifice

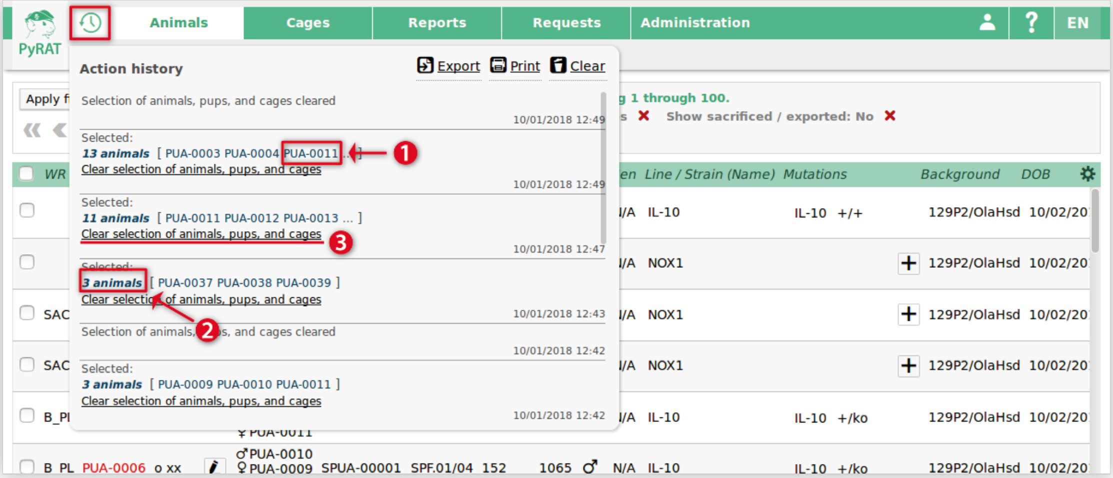
1 In the Enter new request window, select “Sacrifice” as the Request Type.
2 Select the date for when the work request should be carried out.
3 If desired, enter comments and notes for the animal caretaker.
4 Make sure to select the Sacrifice reason.
5 Click Submit. An Animal Caretaker will carry out the work request.

Dead animals in a work request are displayed with crossed out IDs in the request details.

5 The Action History

Action history is a useful feature that shows up to 1000 previous actions along with the IDs of the pups, animals, cages, and work requests involved. Click on the time symbol in the top-left of the screen to open the action history.

1 To open the corresponding detail window, click an ID.
2 To automatically filter the corresponding list and show the relevant entries, click a number of animals, pups, cages, etc.
3 To unselect animals, pups, and cages that were selected for a work request, click Clear selection of animals, pups, and cages. This is only possible as long as the work request has not yet been submitted.



Action history

Selection of animals, pups, and cages cleared
10/01/2018 12:49

Selected:
13 animals [PUA-0003 PUA-0004 PUA-0011 ...]
Clear selection of animals, pups, and cages
10/01/2018 12:49

Selected:
11 animals [PUA-0011 PUA-0012 PUA-0013 ...]
Clear selection of animals, pups, and cages
10/01/2018 12:47

Selected:
3 animals [PUA-0037 PUA-0038 PUA-0039]
Clear selection of animals, pups, and cages
10/01/2018 12:43

Selection of animals, pups, and cages cleared
10/01/2018 12:42

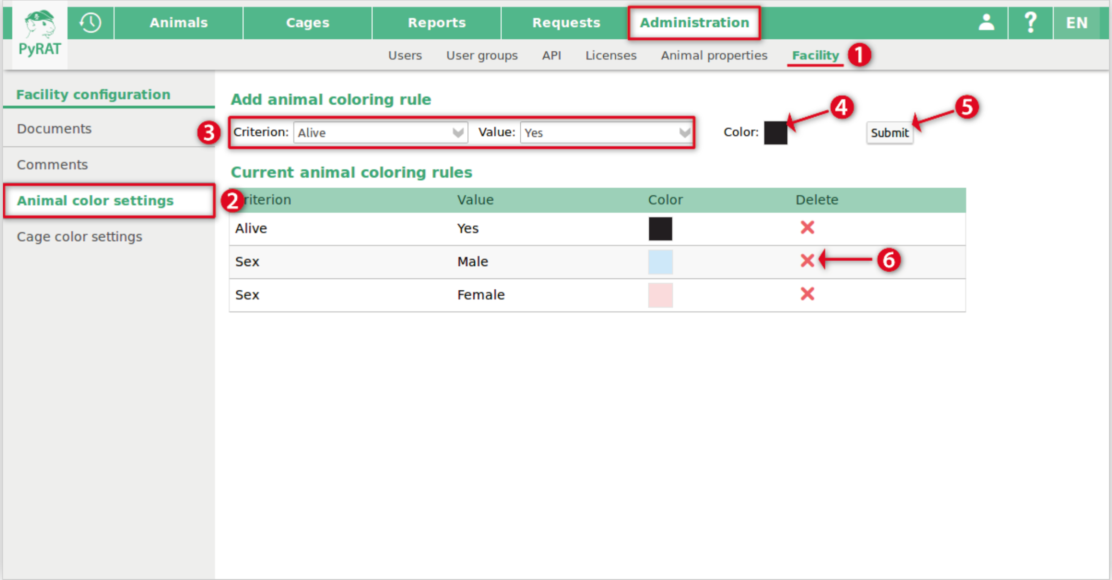
Selected:
3 animals [PUA-0009 PUA-0010 PUA-0011]
Clear selection of animals, pups, and cages
10/01/2018 12:42

The Action Log

In the top-left corner of every animal or cage detail window, you can find the Mark in Log button. For quick access in the future, click on this button to note the respective animal or cage in the action history.

6 Color Configurations

To make the animal and cage lists more informative, coloring rules can be defined for an assortment of criteria.



Add animal coloring rule

Criterion: Alive Value: Yes Color: ■

Current animal coloring rules

Criterion	Value	Color	Delete
Alive	Yes	■	✕
Sex	Male	■	✕
Sex	Female	■	✕

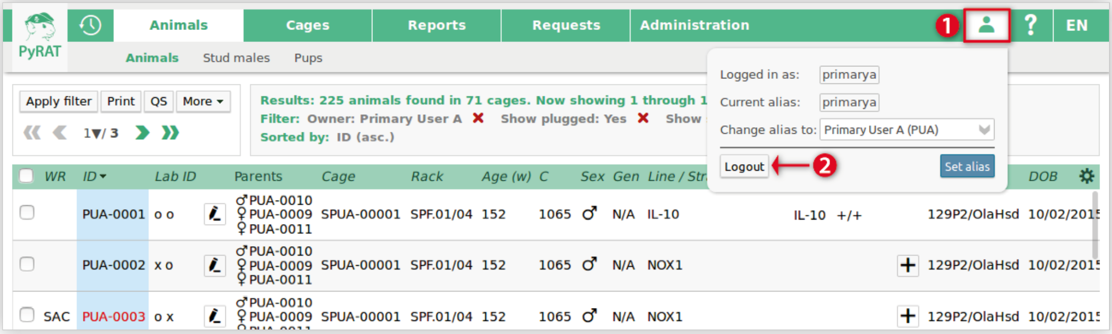
Animal Color Configurations

1 Go to: Administration ▸ Facility.
2 Click Animal color settings.
3 Select a Criterion, e.g,. “sex,” and a Value, e.g., “male.”
4 Select a Color, e.g., “blue.”
5 Click Submit. In the animal list, male animals are now shown with a blue background.
6 The new animal coloring rule is shown in the table below. To remove a rule from the list, click the red x.

To add coloring rules to cages, click Cage color settings. Fill out the information the same way.

7 Logging Out

For security reasons, be sure to log out after each PyRAT session.



Results: 225 animals found in 71 cages. Now showing 1 through 1
Filter: Owner: Primary User A ✗ Show plugged: Yes ✗ Show
Sorted by: ID (asc.)

Logged in as: primarya
Current alias: primarya
Change alias to: Primary User A (PUA)

☐	WR	ID	Lab ID		Parents	Cage	Rack	Age (w)	C	Sex	Gen	Line / Str					DOB
☐		PUA-0001	o o		♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	152	1065	♂	N/A	IL-10	IL-10	+/+		129P2/OlaHsd	10/02/201
☐		PUA-0002	x o		♂PUA-0010 ♀PUA-0009 ♀PUA-0011	SPUA-00001	SPF.01/04	152	1065	♂	N/A	NOX1			+	129P2/OlaHsd	10/02/201
☐	SAC	PUA-0003	o x		♂PUA-0010 ♀PUA-0009	SPUA-00001	SPF.01/04	152	1065	♂	N/A	NOX1			+	129P2/OlaHsd	10/02/201

Logging Out

1 Click the user symbol in the top-right corner of the screen.
2 To finish the PyRAT session, click Logout.

After a period of inactivity, PyRAT will log out automatically. The amount of time before PyRAT logs out automatically can be customized at your facility.

For additional information, please contact our product manager:
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Phone: + 49 / 351 / 202 707 05

www.scionics.com/pyrat

PyRAT
animal facility software

a product realized by:

SCIONICS
computer innovation