



PyRAT

Animal facility software

- Picture by picture explanations for scientists -

- | | |
|---|-------------------|
| 1. View animals in the overview list | Page <u>2-3</u> |
| 2. Enter information for single animals | Page <u>4</u> |
| 3. Enter information for several animals at the same time | Page <u>5</u> |
| 4. View cages in the overview list | Page <u>6</u> |
| 5. Create requests | Page <u>7-8</u> |
| 6. Important for animals in the experiment | Page <u>9</u> |
| 7. View lines and related information | Page <u>10</u> |
| 8. Requests ET-Lab | Page <u>11-13</u> |
| 9. Virtual killing of pups | Page <u>14-15</u> |
| 10. The Animal Pool | Page <u>16-17</u> |
| 11. Orders from Charles River | Page <u>18</u> |
| 12. Change information after the death of the animals | Page <u>19</u> |
| 13. Getting help | Page <u>20</u> |

To familiarise yourself with PyRAT without risking errors in our own data, we recommend testing the demo version in advance. In the demo database, virtual animals can be selected, actions performed, work orders triggered, etc.



Under **Animals** > **Animals** all existing animals are displayed in an overview list.

1. View animals in the overview list

PyRAT

Animals Cages Reports Requests Admini

Max Mustermann ? EN

Animals Stud males Pups

Apply filter Print QS More ▾

Barcode: ☐ (Single mode) Go

Results: 261 animals found in 66 cages. Now showing 1 through 261.
Filter: Owner: Max Mustermann ✕ Show sacrificed / exported: No ✕
Sorted by: ID (asc.)

There are three cage types: Stock, Breeding & Experiment.

Use the filter function to see only animals of a certain strain, room, genotype, ... for example.

By clicking on this red X, additional dead animals are displayed.

☐	WR	ID ▾	Owner	Responsible	Line / Strain (Name)	DOB	Age (w)	Sex	Condition	License number	Cage type	Area	⚙
☐		MAM-00001	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021	15	♂			Stock	Zuchtbereich 03	
☐			ann	Herr Tierlieb	Micky Mouse Strain	01.11.2021	15	♂			Stock	Zuchtbereich 03	
☐			ann	Karla Kolumna	Micky Mouse Strain	01.11.2021	15	♂			Stock	Zuchtbereich 03	
☐			ann	Karla Kolumna	Micky Mouse Strain	01.11.2021	15	♂			Stock	Zuchtbereich 03	
☐	Sac	MAM-00006	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021	15	♂			Stock	Zuchtbereich 03	
☐	TRA	MAM-00007	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021	15	♂			Stock	Zuchtbereich 03	
☐		MAM-00010	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021	15	♂			Stock	Zuchtbereich 03	
☐		MAM-00011	Max Mustermann	Karla Kolumna	Micky Mo					G 0333/22	Experiment	Experimentalhaltung	
☐		MAM-00012	Max Mustermann	Karla Kolumna	Micky Mo					G 0333/22	Experiment	Experimentalhaltung	
☐		MAM-00013	Max Mustermann	Karla Kolumna	Micky Mo					G 0333/22	Experiment	Experimentalhaltung	

All animals in the experiment **must** be assigned a licence in the PyRAT system by the scientist!

1. View animals in the overview list


PyRAT

🕒
Animals
Cages
Reports
Requests
Administration
Max Mustermann
?
EN

Animals
Stud males
Pups

Apply filter
Print
QS
More ▾

Barcode: ☐ (Single mode)
Go

Results: 261 animals found in 66 cages. Now showing 1 through 261.
Filter: Owner: Max Mustermann ✕ Show sacrificed / exported: No ✕
Sorted by: ID (asc.)

By clicking on the wheel, you can set which information should be displayed in the overview list and which should not.

☐	WR	ID ▾	Owner	Responsible	Line / Strain (Name)	DOB	Age (w)	Sex	Condition	License number	Cage type	Area
☐		MAM-00001	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021	15	♂				
☐			Mustermann	Herr Tierlieb				♂				
☐			Mustermann	Karla Kolumna				♂				
☐			Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021	15	♂				
☐	Sac	MAM-00006	Max		Micky Mouse Strain	01.11.2021	15	♂				
☐	TRA	MAM-00007	Max		Micky Mouse Strain	01.11.2021	15	♂				
☐		MAM-00010	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021	15	♂				
☐		MAM-00011	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021	15	♀				
☐		MAM-00012		umna	Micky Mouse Strain	01.11.2021	15	♀				
☐		MAM-00013		umna	Micky Mouse Strain	01.11.2021	15	♀				

The owner of the animals and strains is always the groupleader.

The responsible scientist (=contact person) is entered as "responsible".

Marked animals are in work requests (WR).

ID's are automatically generated by PyRAT. Ear markings are entered as LabID (see page 4)

Select columns

Available columns

Selected columns

Animals in cage
Age in days
Age in months
Assessment clinical signs
Assessment score (current)
Assessment score (maximum)
Assessment sheets
Attributes
Birth ID
Building
Cage
Cage category
Cage label
Cage owner
Cage position
Cage responsible
Classification
Cohort ID
Comments
Comments (with date)

Work requests
ID
Owner
Responsible
Line / Strain (Name)
Date of birth
Age in weeks
Sex
Condition
License number
Cage type

2. Enter information for single animals

Ear punch numbers are entered here as *LabID*.

In the condition field, abnormalities such as "grooming" are entered..

PyRAT

Animals Stud males Pups

Apply filter Print QS More ▾

Barcode: ☐ (Single mode) Go

Results: 261 Filter: Owner Sorted by: I

☐	WR	ID ▾	Owner	Responsible	Line / Strain (Name)
☐		MAM-00014	Max Mustermann	Karla Kolumna	Micky Mouse Str
☐		MAM-00015	Max		Micky Mouse Str
☐		MAM-00021	Max		Micky Mouse Str
☐	WR	MAM-00022	Max		Micky Mouse Str
☐		MAM-00023	Max Mustermann	Karla Kolumna	Micky Mouse Str
☐		MAM-	Max Mustermann	Karla Kolumna	Micky Mouse Str
☐		MAM-00025	Max Mustermann	Karla Kolumna	Micky Mouse Str
☐		MAM-00026	Max Mustermann	Karla Kolumna	Micky Mouse Str

Clicking on the animal ID opens a window with information on the individual animal.

Animal detail

Back Mark in log Pedigree Pedigree graph Move/Sacrifice Print Add to request

♀ ID: MAM-00023 No lab ID Project: None

Owner: Max Mustermann License: None

Responsible: Karla Kolumna Condition: Grooming

Generation: N/A Species: Maus Genetic Bg: B6J Weight: None

Cage: SMAM-00005 Line / Strain: Micky Mouse Strain

Origin: Janvier

Date of birth: 01.11.2021

Date of sacrifice: None

Breeding performance

Mutations		
Modify	Name	Grade
	Mic	+ / +

History Comments Procedures

+ Add procedure

No proced

Under *comments*, information such as "Reserved for Experiment" is entered.

Under *procedures*, all procedures performed, such as training, injections, etc., can be entered by the person performing them. **If your desired procedure is not available, please contact tierarzt@drfz.de.**

Here you can enter your genotyping results.

Special situation "Burdened stains": If an animal of a genetically burdened strain (=genetic phenotype) develops the line-specific burden, this abnormality is entered in the condition field as "Genetischer Phänotyp".

3. Enter information for several animals at the same time

4. Click *Apply*.

2. Click QS.

1. Select the appropriate animals with a click.

3. Fill in the necessary fields. When killing an animal, a licence must always be indicated. If the animal did not die in the experiment, the ZH number is selected. If the animal has already died / been killed on a previous day, the date of death can be changed.

4. Click *Apply*.

WR	ID	Owner	Responsibility
☐	MAM-00014	Max Mustermann	Karla Kolumna
☐	MAM-00015	Max Mustermann	Karla Kolumna
☐	MAM-00021	Max Mustermann	Karla Kolumna
☐	MAM-00024	Max Mustermann	Karla Kolumna
☒	MAM-00025	Max Mustermann	Karla Kolumna
☒	MAM-00026	Max Mustermann	Karla Kolumna

Quick Select | 3 animals selected

- ☐ Manage licenses: Add, remove, modify multiple license assignments
- ☒ Assign new license: ZH 123
Breeding and keeping
19.02.2022
- ☒ Sacrifice these animals
Add reason: Surplus
Sacrifice method: Cervical dislocation
Severity level: 0
Comments:
- ☐ Set sacrifice date to: 19.02.2022
- ☐ Set genetic background: None
- ☐ Set Line / Strain: Set Line / Strain

The Quick Select (QS) function (explained here using the example of “Sacrificing”) With the QS function, the same action (e.g. change condition, reservation, put animals together for mating, killing etc.) can be carried out for several animals at the same time. It is important that it really is exactly the same action, i.e. the reason for killing or the condition are the same.



4. View cages in the overview list

PyRAT   **Animals** **Cages** **Reports** **Requests** **Administration** Max Mustermann  ? EN

Cages Cage summary Map

Apply filter Print cage cards QS AQS More ▾

Barcode:  (Many Mode) Go

Results: 66 cages found with 261 animals. Now showing 1 through 66.
Filter: Owner: Max Mustermann ✕ Status: Open or empty ✕
Sorted by: Cage (asc.)

☐	WR	Cage ▾	Position	Owner	Cage type	DOB	License	# Total	# M	# F	Rack	
☐		BMAM		Max Mustermann	Breeding			3	1	2	Rack 3.05	
☐		BMAM		Max Mustermann	Breeding			3	1	2	Rack 3.05	
☐		EMAM-00002		Max Mustermann	Experiment							
☐		EMAM-00004		Max Mustermann	Experiment							
☐		SMAM-00001		Max Mustermann	Stock							
☐	*	SMAM-00002		Max Mustermann	Stock							
☐		SMAM-00003		Max Mustermann	Stock							
☐	WR	SMAM-00005		Max Mustermann	Stock							
☐		SMAM-00006		Max Mustermann	Stock							
☐		SMAM-00008		Max Mustermann	Stock							

Under Cages > Cages you will find an overview of all existing cages.

The cage overview functions similarly to the animal overview (see [page 1](#)). Using the filter function, selected cages can be displayed and the overview list can be set with the wheel. Clicking on the cage ID opens a window with all information about the cage, such as births and pups. The cage selection and QS function can be used to create orders for entire cages (e.g. order to the experimental site, killing, etc.).

5. Create orders

(explained using the example of “Transport to the DRFZ”)

PyRAT **Animals** Stud males Pups

Apply filter Print QS More ▾

Barcode: ☐ (Single mode) Go

Results: 261 animals found in 66
Filter: Owner: Max Mustermann
Sorted by: ID (asc.)

☐	WR	ID ▾	Owner	Responsible	Line / Strain (Name)	DOB
☐		MAM-00001	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☒		MAM-00003	Max Mustermann	Herr Tierlieb	Micky Mouse Strain	01.11.2021
☒		MAM-00004	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☒		MAM-00010	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00011	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00012	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00013	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00014	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00015	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00016	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00017	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00018	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00019	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00020	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00021	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00022	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00023	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00024	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00025	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00026	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00027	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00028	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00029	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00030	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00031	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00032	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00033	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00034	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00035	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00036	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00037	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00038	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00039	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00040	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00041	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00042	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00043	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00044	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00045	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00046	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00047	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00048	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00049	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00050	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00051	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00052	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00053	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00054	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00055	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00056	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00057	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00058	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00059	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00060	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00061	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00062	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00063	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00064	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00065	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00066	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00067	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00068	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00069	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00070	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00071	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00072	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00073	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00074	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00075	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00076	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00077	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00078	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00079	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00080	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00081	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00082	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00083	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00084	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00085	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00086	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00087	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00088	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00089	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00090	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00091	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00092	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00093	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00094	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00095	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00096	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00097	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00098	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00099	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021
☐		MAM-00100	Max Mustermann	Karla Kolumna	Micky Mouse Strain	01.11.2021

1. Select the appropriate animals with a click.

In this example, you are shown ordering individual animals. You can also order whole cages in the same way via *Cages > Cages*.



Quick Select message

Changes applied

Immediately open a new request

OK

4. Click „Immediately open...“.

Quick Select | 3 animals selected

Apply

3. Click „Apply“.

2. Click on „Select these animals for a work request“.

☒ Select these animals for a work request

☐ Show in cage list: Filter for cages of these animals in cage list

☐ Set generation:

☐ Set responsible: None

☐ Set lab ID:

☐ Set lab ID range: -

☐ Set cohort ID:

☐ Move animals into an existing cage: SMAM-00001 SMAM-00001

☐ Move animals into a new cage: DRFZ Marienfelde > Zuchtbereich 03 > 3.05 > Rack 3.05

Position(s) ? Free slots

Prefix (New owner) Type Category

MAM (Max Mustermann) Stock None

☐ Open many new cages: 0 Animals per cage

☐ Keep animals from original cages together.

5. Create orders

(explained using the example of „Transport to the DRFZ“)

You can find your created requests and the processing status under Requests > Work requests.



Animals

Cages

Reports

Requests

Administration

Animals

Stud males

Pups

Apply filter

Print

QS

More ▾

Barcode: ☐ (Single mode)

Results: 261 animals found in 66 cages. Now show

Show search results

5. Provide all the necessary information.

☐	WR	ID ▾	Owner
☐		MAM-00001	Max Mustermann
☒		MAM-00003	Max Mustermann
☒		MAM-00004	Max Mustermann
☒		MAM-00005	Max Mustermann
☐	Sac	MAM-00006	Max Mustermann
☐	TRA	MAM-00007	Max Mustermann
☐		MAM-00010	Max Mustermann
☐		MAM-00011	Max Mustermann
☐		MAM-00012	Max Mustermann
☐		MAM-00013	Max Mustermann
☐		MAM-00014	Max Mustermann

Please change the due date (presetting is today) to the desired delivery day.

Please always enter either *Tierpflege Mitte* for requests in Mitte (DRFZ) and *Tierpflege Marienfelde* for requests in Marienfelde under "Responsible" (here is meant for the request).

Owner of strain

Select your animal room or the laboratory.

Change the person responsible (here for animals/cages) if this is someone different than previously in the breeding area.

Enter new request

Request type ? Transport to the DRFZ ✖

Due date 23.02.2022 ☐ Create multiple requests

Responsible Tierpflege Marienfelde ✖

Animals

Adults: MAM-00003 MAM-00004 MAM-00005

Cages No cages selected

Pertains to Max Mustermann

Priority Lowest

Comments

Additional request information

New owner Max Mustermann

New location DRFZ Mitte > Experimentalhaltung > 5.08 > Rack 5.08

New responsible -- keep --

Submit

6. Click „Submit“

6. Important for animals in the experiment

PyRAT

Animals Cages Reports

Cages Cage summary Map

Apply filter Print cage cards **QS** AQS More

Barcode: (Many Mode) Go

Results: 25 cages found
Filter: Building: DRFZ
Sorted by: Cage (asc.)

WR	Cage	Position	Owner
☐	SMAM-00041		Max Mustermann
☐	SMAM-00044		Max Mustermann
☐	SMAM-00045		Max Mustermann
☒	SMAM-00046		Max Mustermann
☒	SMAM-00050		Max Mustermann
☒	SMAM-00051		Max Mustermann
☐	SMAM-00052		Max Mustermann
☐	SMAM-00053		Max Mustermann

Quick Select (3 cages selected)

Apply

4. Click Apply.

☐ Select these cages

☐ Show in animal list: Filter for animals of these cages in animal list

☐ Show in pup list: Filter for pups of these cages in pup list

☒ Convert to Experiment cage: Convert selected cages to experiment cages.

☐ Set location: Click here to set location

Position(s) ? Free slots

☐ Set responsible: None

☐ Add comment: Comment

Set color:

Set cage label to:

Set cage label range to: -

Print the selected cages

5. Repeat step 1 and 2 and click "Show in animal list". Then enter the licences using QS (see page 5).

3. Convert cages.

2. Open QS.

1. Select the appropriate cages under Cages > Cages.

All animals in the experiment must be assigned the appropriate licence by the scientist in the PyRAT system (QS => Assign new licence).

The stock cages must be converted into experimental cages.

All interventions are noted as procedures (see page 4).

7. View strains and related information

PyRAT

Animals Cages Reports Requests Administration

Users User groups API Severity assessment Request system Licenses Animal properties Facility

Animal properties

Lines / Strains

Line / Strain DB

Mutations

Mutation types

Grades

Projects

Severity levels

Apply filter Print More ▾

Results: 4 Lines / Strains found. Now showing 1 through 4.

Filter: Permitted user: Max Mustermann ✕ Status: Available ✕ Used for: Active Line / Strain ✕

Sorted by: Line / Strain (Name) (asc.)

Owner	Line / Strain (Name) ▾	Official name	Description	# Animals	Severity level	Genetically altered	Area
Max Mustermann	Mickey Mouse			300			Zuchtbereich 03 Zuchtbereich 09 Experimentalhaltung
Max Mustermann	Micky Mouse	Mickey Mouse Ltd.		17			Zuchtbereich 03 Zuchtbereich Haus 5 Experimentalhaltung Labor
Max Mustermann	Minnie Mouse	Minnie Mouse Ltd.	HO letal	495		Yes	Zuchtbereich 03 Zuchtbereich 09 Experimentalhaltung
Max Mustermann	Minnie x Mickey	Minnie Mickey Mix Ltd.	HO letal	348	1	Yes	Zuchtbereich 03 Zuchtbereich 09 Experimentalhaltung Quarantäne

Click on Details. A window opens with information on the strain such as related mutations, documents, etc.

By clicking on this red X, additional strains from which no animals are currently available are displayed.

Important: For new matings, imports of new strains or revitalisations, a final assessment must first be sent to tierarzt@drfz.de so that the new strain, associated mutations and further information can be entered into the PyRAT system. This also applies to orders placed with commercial breeders.

8. ET-Lab request creation

PyRAT   **Animals** **Cages** **Reports** **Requests** **Administration**

Work requests Order requests Special services

Apply filter New request Print More ▾

Priority: E! Emergency
H High
M Medium
L Low

Results: 9 work requests found. Now showing 1 through 9.
Filter: Owner: Max Mustermann
Sorted by: Last modified (desc.)

2. Select the appropriate request for the ET Labor.

3. Select "ET Labor" as the responsible person

If you already know which animals are to be used for the request, please select the animals via *Animals* or *Cages* first! and open the new request via QS (as described on page 7)

If animals can only be delivered / selected after the request has been created, please create a request "Animal supply ET labor" at the appropriate time.

4. Please enter here all information that is already known, such as the delivery date of the animals.

5. Click Submit.

1. Open a new request under *Requests* > *Work requests*.

Enter new request

Request type ? Embryotransfer X

Due date 23.06.2022 ☐ Create multiple requests

Responsible ET Labor X

Animals No animals selected

Cages No cages selected

Pertains to Max Mustermann

Priority Medium

Comments Animals will be delivered next week!

Cancel and clear selection Submit

Created	Due	ID	Prio	Status	Approval required	Class	Owner
23.06.2022					No	Embryotransfer	Max Mustermann
23.06.2022					No	Embryotransfer	Max Mustermann
27.04.2022	28.04.2022	17	L	Open	No	Procedure	Max Mustermann
26.04.2022	29.04.2022	15	L	Open	No	Procedure	Max Mustermann
26.04.2022	29.04.2022	14	L	Open	No	Procedure	Max Mustermann
26.04.2022	28.04.2022	13	L	Open	No	Procedure	Max Mustermann
31.03.2022	01.04.2022	12	L	Open	No		Theres Manthey
24.01.2022	01.02.2022	3	H	Open	No		Theres Manthey
24.01.2022	01.02.2022	2	H	Open	No		Theres Manthey

Karla Kolumna 1/-/- A: MAM-00022

Wonder Woman -/-

8. ET-Lab request creation



🕒

Animals

Cages

Reports

Requests

Administration

Work requests

Order requests

Special services

Apply filter

New request

Print

More ▾

Priority: E! Emergency

H High

M Medium

L Low

Results: 10 work requests found. Now showing 1 through 10

Filter: Owner: Max Mustermann ✖ Status: All unresolved

Sorted by: Last modified (desc.)

Created	Due	ID	Prio	Status	Approval required	Class	Owner	Initiator	De
23.06.2022	23.06.2022	22	M	Open	No	Embryotransfer	Max Mustermann	Karla Kolumna	Ar
23.06.2022	28.06.2022			Open	No	Embryotransfer	Max Mustermann	Karla Kolumna	Tie
23.06.2022				Freigabe	No	Embryotransfer	Max Mustermann	Theres Manthey	ge
27.04.2022					No	Procedure	Max Mustermann	Theres Manthey	
26.04.2022					No	Procedure	Max Mustermann	Paul Streckert	
26.04.2022	29.04.2022	14	L	Open	No	Procedure	Max Mustermann	Paul Streckert	Bl
26.04.2022	28.04.2022	13	L	Open	No			Paul Streckert	Bl
31.03.2022	01.04.2022	12	L	Open	No				

Mouse line information sheet

Date

GMO #

Contact

Working group

Responsible person

E-mail

Phone

Aim of project

only for IVF: oocyte donors

Mouse line

Lab name:

International name 1)

Background

Obtained from

(see AK + Error for Bio breaks)

References

First description of genetic modification, description of phenotype

(see AK + Error for Bio breaks)

1) Rules of mouse nomenclature and names of published strains can be found in

DRFZ

BERLIN

Deutsches Rheuma-Forschungszentrum

Ein Institut der Charité-Gemeinschaft

Lfd. GenDoku-Nr.

FEM-Nr.

(Wird bei Zucht an der Charité von der FEM ausgefüllt)

Abschlussbeurteilung genetisch veränderter Zuchtlinien

1. Besitzer*in und beurteilte Linie

AG-Leitung:

Institut / Adresse / E-Mail-Adresse einer Kontaktperson

Deutsches Rheuma-Forschungszentrum (DRFZ) / Charitéplatz 1, 10117 Berlin

@drfz.de

Tierart: Maus

Bezeichnung (Internationale Nomenklatur)¹:

Labor(kurz)bezeichnung¹:

¹bei FEM-Zucht identisch mit Bezeichnung auf GenDoku

Genetische Modifikationen (nur bei GVO)

Gen 1

Gen 2

Gen 3

Gen 4

Bezeichnung

Art der Modifikation

Herkunftsorganismus²

Position Einfügung

Request detail - ID 22

Class Embryotransfer ID 22

Print

Due date: 23.06.2022

Open date: 23.06.2022

Close date: Unknown

Responsible staff: ET Labor

Pertains to: Max Mustermann

Initiator: Karla Kolumna

Priority: Medium

Project: None

Status: Open

Required location permission: No location set

Request description:

Animals will be delivered next week!

History

Documents

Click or Drop files here

Name	Size	Uploaded	Remove
Auftragsformular ET Lab.xlsx	302,5 KiB	OK	✖

6. Open your new request.

7. Upload the documents "Request ET Laboratory" and "Final assessment" (and any additional documents available such as the health certificate or others).

After the request has been created, you will be contacted by the ET Lab for further planning.

8. Animal supply ET-Lab request creation

This request creation only needs to be done if animals can only be delivered / selected after the actual request creation for the ET laboratory (see page 8 to 9).

PyRAT Animals Stud males Pups Shared animals Shared pups

Apply filter Print QS More ▾

Results: 1189 animals found in 388 cages. Now showing 1 through 500.
Filter: Show sacrificed / exported: No ✕
Sorted by: ID (asc.)

☐	WR	ID ▾	Lab ID	Owner	Responsible	Line / Strain (Name)	DOB	Age (w)	Sex	Condition	Licenses
☐		MAM-00078			Max Mustermann	Herr Tierlieb	Minnie Mouse	02.11.2021			
☐		MAM-00079			Max Mustermann	Herr Tierlieb	Minnie Mouse	02.11.2021			
☐		MAM-00080			Max Mustermann	Herr Tierlieb	Minnie Mouse	02.11.2021			
☒		MAM-00081			Max Mustermann	Herr Tierlieb	Minnie Mouse	02.11.2021			
☒		MAM-00082			Max Mustermann	Herr Tierlieb	Minnie Mouse	02.11.2021			
☒		MAM-00083			Max Mustermann	Herr Tierlieb	Minnie Mouse	02.11.2021			
☐		MAM-00084			Max Mustermann	Herr Tierlieb	Minnie Mouse	02.11.2021			
☐		MAM-00085			Max Mustermann	Herr Tierlieb	Minnie Mouse	02.11.2021			
☐		MAM-00086			Max Mustermann	Herr Tierlieb	Minnie Mouse	02.11.2021	36	♀	
☐		MAM-00087			Max Mustermann	Herr Tierlieb	Minnie Mouse	02.11.2021	36	♀	
☐		MAM-00088			Max Mustermann	Herr Tierlieb	Minnie Mouse	02.11.2021	36	♀	
☐		MAM-00089			Max Mustermann	Herr Tierlieb	Minnie Mouse	02.11.2021	36	♀	
☐		MAM-00090			Max Mustermann	Karla Kolumna	Minnie Mouse	02.11.2021	36	♀	
☐		MAM-00091			Max Mustermann	Karla Kolumna	Minnie Mouse	02.11.2021	36	♀	

1. Select animals and open request.

2. Select request “Animal supply ET labor”, Responsible: “Tierpflege Marienfelde”, and note the ID of the actual ET request in the comments field (you can find the ID in the request list).

3. Submit.

Enter new request

Request type: Animal supply ET lab ✕

Due date: 12.07.2022 ☐ Create multiple requests

Responsible: Tierpflege Marienfelde ✕

Animals: Adults: MAM-00081 MAM-00082 MAM-00083

Cages: No cages selected

Required location permission: DFRZ Marienfelde > Zuchtbereich 03 > 3.05 > Rack 3.05

Pertains to: Max Mustermann

Priority: Lowest

Comments: Animals are intended for the request embryo transfer with ID 123.

Cancel and clear selection Submit

Stock Zuchtbereich 03 5

Stock Zuchtbereich 03 4

Stock Zuchtbereich 03 4

Stock Zuchtbereich 03 4

Stock Zuchtbereich 03 4

Stock Experimentalhaltung 3

Stock Experimentalhaltung 3

9. Virtual killing of pups

If animals are used for an experiment / organ removal before weaning

PyRAT **Animals** **Cages** **Reports** **Requests** **Administration**

Cages Cage summary Map

Apply filter Print cage cards QS AQS More ▾

Results: 124 cages found with 355 animals. Now showing 1 through 12
Filter: Cage type: Breeding ✕
Sorted by: # Births (desc.) ✕

☐	WR	Cage	Position	Cage type	# Total	# M	Male Line / Strain	# F
☐		BMAM-00002		Breeding	3	1	Minnie x Mickey	2
☐	PROC	BMAM-00001		Breeding	1	0		1
☐		BMAM-00091		Breeding	3	1	Minnie x Mickey	2
☐	PROC	BMAM-00114		Breeding	2	1	Minnie Mouse	1
☐	PROC	BMAM-00118		Breeding	3	1	Minnie Mouse	2
☐		BMAM-00010		Breeding	3	1	Minnie x Mickey	2
☐		BMAM-00003		Breeding	3	1	Minnie x Mickey	2
☐		BMAM-00005		Breeding	3	1	Minnie x Mickey	2
☐		BMAM-00004		Breeding	3	1	Minnie x Mickey	2
☐		BMAM-00092		Breeding	3	1	Minnie x Mickey	2
☐		BMAM-00085		Breeding	3	1	Minnie x Mickey	2
☐		BMAM-00086		Breeding	3	1	Minnie x Mickey	2
☐		BMAM-00087		Breeding	3	1	Minnie x Mickey	2
☐		BMAM-00088		Breeding	3	1	Minnie x Mickey	2
☐		BMAM-00089		Breeding	3	1	Minnie x Mickey	2

1. Open cage details of the corresponding breeding cage.

Cage detail - Breeding cage

Back Mark in log Print Birth Select

Breeding cage MAM-00091

Owner: Max Mustermann License: None
Responsible: Karla Kolumna Project: None
Location: Rack 3.05 Category: Default
Pup Line / Strain: Minnie x Mickey

Line / Strain: Minnie x Mickey
ID: MAM-00495 | No lab ID
DOB: 11.12.2021 Date in: 23.02.2022 Date out: Move/Sacrifice

Line / Strain: Minnie x Mickey
ID: MAM-00493 | No lab ID
DOB: 11.12.2021 Plug date: Plug Date in: 23.02.2022 Date out: Move/Sacrifice

Line / Strain: Minnie x Mickey
ID: MAM-00494 | No lab ID
DOB: 11.12.2021 Plug date: Plug Date in: 23.02.2022 Date out: Move/Sacrifice

Breeding events Animals history Cage history Comments

DOB	Mothers	Born ?	Born ♂	Born ♀	Live ?	Live ♂	Live ♀	Weaned	Comments
05.07.2022	MAM-00493	0	2	3	0	2	3	Wean Assign IDs Delete	None

2. Click on the flag next to the affected litter. The animals then appear in the young animal list (see next page).

9. Virtual killing of pups

If animals are used for an experiment / organ removal before weaning

Animals Cages Reports Requests Administration

Animals Stud males **Pups** Shared animals Shared pups

Apply filter Print QS More ▾

Results: 5 pups found in 1 cages. Now showing 1 through 5.
Filter: Birth ID: 12 ✕ Show sacrificed / exported: No ✕
Sorted by: ID (asc.)

✓	ID	Lab ID	Parents	Cage
✓	00000065		♂ MAM-00495 ♀ MAM-00493	BMAM-00091
✓	00000066		♂ MAM-00495 ♀ MAM-00493	BMAM-00091
✓	00000068		♂ MAM-00495 ♀ MAM-00493	BMAM-00091
✓	00000069		♂ MAM-00495 ♀ MAM-00493	BMAM-00091

Quick Select | 5 pups selected

6. Click Apply.

**4. Enter licence (G number/T number).
5. Kill animals.**

3. Select the animals used.

- ☐ Delete all license assignments
- ☒ Assign new license:
T 0456/10
Organ removal
26.07.20
- ☒ Sacrifice these animals
Add reason: Organ collection
Sacrifice method: Cervical dislocation
Severity level: 0
Comments:
- ☐ Set sacrifice date to: 26.07.20
- ☐ Resurrect these animals
- ☐ Set severity level: None
- ☐ 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)
- ☐ Add mutation: Min N/A Add

10. The animal pool

The animal pool includes animals that have been shared by scientists for use by others. These animals can be ordered and used by all scientists. If there is no call from the animal pool within the next 14 days, the request is considered a kill request with the reason "Surplus". Wild types are excluded - these remain in the animal pool indefinitely.

PyRAT

🕒

Animals

Cages

Reports

Requests

Animals

Stud males

Pups

Shared animals

Shared pups

Apply filter

Saved ▾

Print

QS

More ▾

1 ▾ / 2 ▸

Results: 607 animals found in 175 cages. Now showing

Filter: Owner: AG Tierzucht ✕ Show sacrificed / exp

Sorted by: Responsible (asc.) ✕

☐	Owner	Responsible ▾	WR	ID	Lab ID	Cage	Sex
☐	Tierzucht	AG Tierzucht				SAGT-00307	♂
☐	AG Tierzucht	AG Tierzucht		AGT-00306		SAGT-00060	♀
☐	AG Tierzucht	AG Tierzucht		AGT-00145		SAGT-00026	♂
☒	AG Tierzucht	AG Tierzucht		AGT-00107			♀
☒	AG Tierzucht	AG Tierzucht		AGT-00322			♀
☒	AG Tierzucht	AG Tierzucht		AGT-00120			♀
☐	AG Tierzucht	AG Tierzucht		AGT-00706		SAGT-00204	♂
☐	AG Tierzucht	AG Tierzucht				SAGT-00212	♂
☐	AG Tierzucht	AG Tierzucht				SAGT-00110	♀
☐	AG Tierzucht	AG Tierzucht		AGT-00168	Vaso	SAGT-00039	♂
☐	AG Tierzucht	AG Tierzucht		AGT-00598		SAGT-00163	♂

Quick Select | 3 animals selected

Apply

☐ Select these animals for a work request

☐ Show in cage list: Filter for cages of these animals in cage list

☐ Set date of birth: 09.11.2022

☐ Set sex: Female ▾

☐ Set generation: None ▾ None ▾ None ▾

☐ Set species: Maus ▾

☐ Set responsible: None ▾

☐ Set lab ID:

☐ Set lab ID range: -

☐ Set cohort ID:

☒ Add to the pool of shared animals

☐ Move from the pool of shared animals

☐ Move animals into an existing cage: Click here to set cage

☒ Move the mother and the pups

☐ Move the mother only

☐ Move animals into a new cage: Click here to set location

Position(s) ? Free slots

2. Click "QS".

3. Click "Add to the pool...".

4. Click "Apply".

1. To make surplus animals available to other scientists, select the animals.

10. The animal pool

PyRAT Animals Stud males Pups **Shared animals** Shared pups

Apply filter Request More

Results: 185 animals found in 4 cages. Now showing 1 through 185.
Filter: Show sacrificed / exp No
Sorted by: ID (asc.)

WR	ID	Sex	Species
☐	AGT-01089		
☐	AGT-01090		
☐	AGT-01092		
☐	AGT-01093		
☐	AGT-01094		
☐	AGT-01147		
☒	AGT-01152		
☒	AGT-01153		
☒	AGT-01154		
☐	AGT-01308		
☐	AGT-01309		
☐	AGT-01468		
☐	AGT-01469		
☐	AGT-01665		
☐	AGT-01666		

2. Open "request"

Under "Shared animals" you will find available animals.

1. To order shared animals from other scientists, select the desired animals.

4. Indicate who the new animal owner (=group leader) and who the new responsible scientist will be.

5. Click "Submit"

After the animal caretakers have processed the request, the animals automatically appear with the new owner and new responsible scientist.

3. Select delivery date and responsible: Pay attention to the location of the animals: If the animals are already in Mitte, select "Tierpflege Mitte"; if the animals are in Marienfelde, select "Tierpflege Marienfelde".

Enter new request

Request type: Transfer from the animal pool

Due date: 05.02.2025 ☐ Create multiple requests

Responsible: Tierpflege Marienfelde

Animals: Adults: AGT-01152 AGT-01153 AGT-01154

Cages: No cages selected

Required location permission: DRFZ Marienfelde > Zuchtbereich 03 > R

Pertains to: Max Mustermann

Priority: Lowest

Comments:

Additional request information

License: T_DRFZ 0001/22

Classification: Organ removal

New owner: Max Mustermann

New location: DRFZ Mitte > Experimentalhaltung

New responsible: Max Mustermann

Cancel and clear selection Submit

11. Orders from Charles River

Under “Requests > Order requests” you will find an overview of orders placed and you can place new orders..

PyRAT

Animals Cages Reports **Requests** Admin

Work requests **Order requests** Special services

Apply filter New order Print More ▾

Priority: E! Emergency
H High
M Medium
L Low

Results: 2 orders found. Now showing 1 through 2.
Filter: Status: All active ✕
Sorted by: Created (desc.)

Created ▲	ID	Prio	Status	Owner	
28.11.2022	13	L	Delivered	Max Mustermann	
14.11.2022	28.11.2022	10	L	Approved	AG Tierzucht

1. Open “New order”

2. Enter all required information in the order field.

Important:
Please always enter „Tierpflege Mitte“ for orders to Mitte (DRFZ).
Under “Project” please enter the cost account under which the order is to be billed.

3. Click “Submit”

Your orders will be approved by the AG Tierzucht and automatically forwarded to Charles River. Once the animals are delivered, you will receive a notification from the PyRAT system.

If you would like to order a strain that is not available in the PyRAT system or the cost account is missing, please send an email to tierarzt@drfz.de. We will add the strain.

New order request

Origin: Charles River

Delivery date: 20.12.2022 ☐ Create multiple requests

Priority: Lowest

Owner: Max Mustermann

Responsible: Karla Kolumna

Responsible staff: Tierpflege Mitte

Species: Maus

Line / Strain: C57BL/6N

Official name: C57BL/6NCd

Project: 25 (AG Tierzucht)

Genetic background: None

License: L 0028/18

Classification: Teaching project

Location: DRFZ Mitte > Experimentalhaltung > 5.08

Comment: Comment

Males: 5 Age (weeks): 8 - 12

Females: 3 Weight (g): (Range)

Pregnant With litter

Animals per cage: 10 Diet:

Cage type: Experiment Cage category: Default

Submit

12. Change information after the death of the animals

PyRAT **Animals** Stud males Pups Shared animals Shared pups

Apply filter Print QS More

Results: 343 animals found in 127 cages. Now showing 1 through 513
Filter: Owner: AG Tierzucht **Show sacrificed / exported: Sacrificed**
Sorted by: ID (asc.)

WR	ID	Lab ID	License number	Cage	Sex	Line / Strain (Name)
☐	AGT-00010	ZH 186	BAGT-00001		♀	C57BL/6J
☐	AGT-00013	ZH 186	BAGT-00001		♀	C57BL/6J
☐	AGT-00038	ZH 186	BAGT-00015		♂	
☒	AGT-00039	L 0023/21	SAGT-00009		♂	
☒	AGT-00040	L 0023/21	SAGT-00009		♂	
☒	AGT-00041	L 0023/21	SAGT-00009		♂	
☐	AGT-00042	L 0023/21	SAGT-00009		♂	
☐	AGT-00043	L 0023/21	SAGT-00009		♂	
☐	AGT-00064	ZH 186	BAGT-00015		♀	C57BL/6J
☐	AGT-00065	ZH 186	BAGT-00005		♀	C57BL/6N
☐	AGT-00069	ZH 186	BAGT-00007		♂	C57BL/6N
☐	AGT-00070	ZH 186	BAGT-00007		♀	
☐	AGT-00071	ZH 186	BAGT-00007		♀	
☐	AGT-00072	ZH 186	BAGT-00008		♂	
☐	AGT-00078	ZH 186	BAGT-00010		♂	
☐	AGT-00079	ZH 186	BAGT-00010		♀	
☐	AGT-00080	ZH 186	BAGT-00010		♀	CBA/JRj
☐	AGT-00081	ZH 186	BAGT-00011		♂	CBA/JRj
☐	AGT-00082	ZH 186	BAGT-00011		♀	CBA/JRj
☐	AGT-00083	ZH 186	BAGT-00011		♀	CBA/JRi

4. In the QS menu, change the information.

The licence can be changed via "Manage licences" or "Assign new licence". Important: Click on "Replace current licence", otherwise the animals will count on both licences.

The date of death and the actual severity degree can be changed here.

Quick Select | 3 animals selected

Click here to set cage

DRFZ Mitte > Experimentalhaltung > 5.08 > Rack 5.08

Position(s) ? Free slots

Prefix (New owner) Type Category
AGT (AG Tierzucht) Stock None

☐ Keep animals from original cages together.

☐ Open many new cages: 0 Animals per cage

Cage fill method:
☒ Distribute animals evenly
☐ Fill cages completely

Add, remove, modify multiple license assignments

☐ Manage licenses:
☒ Assign new license:
G 0123/22
Experiment
10.12.2022
☒ Replace current license:
L 0023/21 / Teaching project

☐ Confirm assigned licenses:
L 0023/21 / Teaching project

Add reason:
Sacrifice method:
Severity level:
Comments:

☐ Sacrifice these animals

☐ Set sacrifice date to: 10.03.2023
☐ Set severity level: None
☐ Set genetic background: None
☐ Set Line / Strain: Set Line / Strain

☒ Keep mutations
☒ Change the Line / Strain of pups as well?
(This means that the Line / Strain of the father is modified)

5. Click "Apply"

You need help or have other concerns?

BeFor questions or other matters concerning PyRAT, please contact tierarzt@drfz.de

By the way, you can find a detailed PyRAT manual on the [Intranet](#).

