DMP title

Project Name The rewarding nature of active avoidance. - DMP title
Project Identifier 11G7122N
Grant Title 11G7122N
Principal Investigator / Researcher Laura Vercammen
Project Data Contact laura.vercammen@kuleuven.be
Description The project focuses on the role of the mesolimbic dopamine reward system and the endogenous opioid system in the acquisition of a two-way active avoidance response in rats.
Institution KU Leuven

1. General Information

Name applicant

Laura Vercammen

FWO Project Number & Title

The rewarding nature of active avoidance (11G7122N)

Affiliation

- KU Leuven

2. Data description

Will you generate/collect new data and/or make use of existing data?

- Generate new data

Describe in detail the origin, type and format of the data (per dataset) and its (estimated) volume. This may be easiest in a table (see example) or as a data flow and per WP or objective of the project. If you reuse existing data, specify the source of these data. Distinguish data types (the kind of content) from data formats (the technical format).

Type of data	Format	Volume	How created
Video files	.avi	30-80 GB per experiment	Recorded from video camera attached to our experimental setup.
Graphic State protocols	.gsprt	15 kB per experiment	Equipment-specific protocols programmed with Graphic State 4.
Graphic State output	.gslog	~30 kB per subject	Output from the software that records the subject name, time, experimental protocol and collected data.
Microscopy images	.tiff	5 GB	Histological images.
Software output	.txt	~250 kB per subject	Numerical data obtained from e.g., uHPLC analyses, USV analyses.
Ultrasonic vocalization (USV) recording	.wav	40-65 GB per experiment	Output from BioAcoustics Avisoft recording software.
Processed data for statistical analyses	.xlsx	~200 kB per subject	Excel datafiles that contain the processed data to directly perform statistical analyses on.

3. Legal and ethical issues

Will you use personal data? If so, shortly describe the kind of personal data you will use. Add the reference to your file in KU Leuven's Register of Data Processing for Research and Public Service Purposes (PRET application). Be aware that registering the fact that you process personal data is a legal obligation.

- No

Privacy Registry Reference:
Short description of the kind of personal data that will be used:

Are there any ethical issues concerning the creation and/or use of the data (e.g.

experiments on humans or animals, dual use)? If so, add the reference to the formal approval by the relevant ethical review committee(s)

- Yes

Reference to the animal ethics committee approval (ECD): P141/2021

Does your work possibly result in research data with potential for tech transfer and valorisation? Will IP restrictions be claimed for the data you created? If so, for what data and which restrictions will be asserted?

- No

Do existing 3rd party agreements restrict dissemination or exploitation of the data you (re)use? If so, to what data do they relate and what restrictions are in place?

- No

4. Documentation and metadata

What documentation will be provided to enable reuse of the data collected/generated in this project?

All files will be kept in a folder per experiment that will be organized as follows: main folder that contains the study design and preregistration, data folder that contains all raw data (obtained from Graphic State, videos, histological images and electronic lab notebooks) and a final analysis folder that contains the processed data, statistical analyses and plots.

Each folder and dataset will include a sheet or readme file with documentation.

Will a metadata standard be used? If so, describe in detail which standard will be used. If no, state in detail which metadata will be created to make the data easy/easier to find and reuse.

- No

The video files and images have inherent metadata. When applicable, metadata will be stored in .txt or .csv files.

5. Data storage and backup during the FWO project

Where will the data be stored?

All digital data will be stored on KU Leuven central servers, on the researcher's personal drive (which can only be accessed by the researchers involved) and Personal OneDrive for Business or a shared drive at the level of the research group located in a locked server room. Copies are made and kept on personal devices (e.g., laptops, hard drives) that are encrypted.

How is backup of the data provided?

The data will be stored on the university's central servers with autmatic daily backup procedures. Videos and USV data are stored on two separate hard drives given their large sizes. These hard drives are backed up once a month to KU Leuven central servers.

Is there currently sufficient storage & backup capacity during the project? If yes, specify concisely. If no or insufficient storage or backup capacities are available then explain how this will be taken care of.

- Yes

Data storage costs will be covered by the lab.

What are the expected costs for data storage and back up during the project? How will these costs be covered?

Back-up cost per TB is currently €99,55/year (KU Leuven ICTS, Large Volume Storage). For these studies, we expect this to amount to maximally 2000€ for the duration of the project.

Data security: how will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?

All our data is stored on password protected and encrypted external hard drives and personal

computers.

6. Data preservation after the FWO project

Which data will be retained for the expected 5 year period after the end of the project? In case only a selection of the data can/will be preserved, clearly state the reasons for this (legal or contractual restrictions, physical preservation issues, ...).

All digital data will be retained. Histological slides will be discarded after analyses (digital histological images will be retained).

Where will the data be archived (= stored for the longer term)?

After completion of data collection, and until 10 years after the end of the project as per KU Leuven RDM policy, all digital data will be stored on our research unit's central storage facility (a dedicated NAS (network-attached storage), with automatic internal back-up, and in the near future also off-site back-up in a different building of our Faculty). Supervisors can request access to this NAS from the group's IT responsibles who manage the NAS.

What are the expected costs for data preservation during the retention period of 5 years? How will the costs be covered?

Our current capacity is 8 TB, but this can be easily expanded to 16 TB or more, at an additional cost of 250 euro per 8 TB. Data storage costs will be covered by the lab.

7. Data sharing and reuse

Are there any factors restricting or preventing the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)?

- No

Which data will be made available after the end of the project?

Data used in publications will be made available through OSF. Video files, images and USV files will not be shared as such (but will be shared upon reasonable request), because of their (very) large size, but the extracted data (e.g., behavioral measurements per subject per video) will be made publicly available.

Where/how will the data be made available for reuse?

- In an Open Access repository
- In a restricted access repository
- Upon request by mail

We will use public repositories (e.g., the Open Science Framework - European servers).

When will the data be made available?

- After an embargo period. Specify the length of the embargo and why this is necessary
- Upon publication of the research results

Data will be made avaiable immediately after publication.

Who will be able to access the data and under what conditions?

Public repositories are open access, searchable through key words, and available to all registered users.

What are the expected costs for data sharing? How will the costs be covered?

Public repositories are free of charge.

8. Responsibilities

Who will be responsible for data documentation & metadata?

The applicant is responsible for data documentation and metadata.

Who will be responsible for data storage & back up during the project?

The applicant and the supervisor (Prof. dr. Bram Vervliet) are responsible for data storage and back up.

Who will be responsible for ensuring data preservation and reuse ?

The supervisor (Prof. dr. Bram Vervliet) working on the project is responsible for ensuring data preservation and reuse.

Who bears the end responsibility for updating & implementing this DMP?

The PI bears the end responsibility of updating & implementing this DMP.