Investigating TRPM3 as a nociceptor for endometriosis-associated pain
Application DMP

Questionnaire

The questions in this section should only be answered if you are currently applying for FWO funding.
Are you preparing an application for funding?

- No

Investigating TRPM3 as a nociceptor for endometriosis-associated pain
DPIA

DPIA

Have you performed a DPIA for the personal data processing activities for this project?

- No

Investigating TRPM3 as a nociceptor for endometriosis-associated pain
GDPR

GDPR

Have you registered personal data processing activities for this project?

- No

Investigating TRPM3 as a nociceptor for endometriosis-associated pain
FWO DMP (Flemish Standard DMP)

1. Research Data Summary

List and describe all datasets or research materials that you plan to generate/collect or reuse during your research project. For each dataset or data type (observational, experimental etc.), provide a short name & description (sufficient for yourself to know what data it is about), indicate whether the data are newly generated/collected or reused, digital or physical, also indicate the type of the data (the kind of content), its technical format (file extension), and an estimate of the upper limit of the volume of the data.

				Only for digital data	Only for digital data	Only for digital data	Only for physical data
Dataset Name	Description	New or reused *Please choose from the following options:* • Generate new data • Reuse existing data	Digital or Physical *Please choose from the following options:* • Digital • Physical	Digital Data Type *Please choose from the following options:* • Observational • Experimental • Compiled/aggregated data • Simulation data • Software • Other • NA	Digital Data Format *Please choose from the following options:* • .por, .xml, .tab, .csv,.pdf, .txt, .rtf, .dwg, .gml, ... • NA	Digital data volume (MB/GB/TB) *Please choose from the following options:* • <100MB • <1GB • <100GB • <1TB • <5TB • <10TB • <50TB • >50TB • NA	Physical volume
Task 1.1 Endometriosis mouse model	Generate mice with innervated endometriosis lesions	New	Digital	Experimental	Raw data (.xlsx,.png)	<100MB	
Task 1.2 *Ex vivo* calcium imaging mouse nerve fibers	Functional expression	New	Digital	Experimental	Raw data (.nd2) Exported data (.xlsx) Analysed data (.xlsx, .pzfx) Images/figures (.tiff, .png,. jpg)	< 1TB	
Task 1.3 Validation mouse endometriosislesions	Histological investigation	New	Physical + Digital	Experimental	Paraffin blocks Digital slides (images, .czi) Analysed data (.xlsx, .pzfx)	< 100GB	Biobank

Task 2.1A RNAScope mouse DRG	mRNA expression	New	Physical + Digital	Experimental	Cryo blocks Digital slides (images, .czi) Analysed data (.xlsx, .pzfx)	< 1TB	Biobank
Task 2.1B *In vitro* calcium imaging mouse DRG	Functional expression	New	Digital	Experimental	Raw data (.nd2) Exported data (.xlsx) Analysed data (.xlsx, .pzfx) Images/figures (.tiff, .png,. jpg)	< 1TB	
Task 2.1C Inflammatory environment mouse endometriosis lesion	Histological investigation	New	Physical + Digital	Experimental	Paraffin blocks Digital slides (images, .czi) Analysed data (.xlsx, .pzfx)	< 100GB	Biobank
Task 2.2A Neurosteroid concentration human peritoneal fluid	LS-MS/MS	New	Physical + Digital	Experimental	Analysed data (.xlsx, .pzfx)	< 100MB	Biobank
Task 2.2B Steroidogenic expression human endometriosis lesion	Sequencing and qPCR	New	Physical + Digital	Experimental	Sequencing raw data (.fastq) Sequencing alignment data (.bam) Coverage data (.bed) Differential expression (.xlsx) qPCR raw data (.eds) Analysed data (.xlsx, .pzfx)	< 1TB	Biobank
Task 2.2C Inflammatory environment human endometriosis lesion	Sequencing of endometriosis lesion	New	Physical + Digital	Experimental	Sequencing raw data (.fastq) Sequencing alignment data (.bam) Coverage data (.bed) Differential expression (.xlsx)	< 1TB	Biobank

Task 3A Endometriosis rat model	Test antagonists as treatments	New	Digital	Experimental	Raw data (.avi) Exported data (.xlsx) Analysed data (.xlsx, .pzfx) Images/figures (.tiff, .png,. jpg)	< 100GB	
Task 3B Validate rat endometriosislesions	Histological investigation	New	Physical + Digital	Experimental	Paraffin blocks Digital slides (images, .czi) Analysed data (.xlsx, .pzfx)	< 100GB	Biobank

If you reuse existing data, please specify the source, preferably by using a persistent identifier (e.g. DOI, Handle, URL etc.) per dataset or data type:

NA

Are there any ethical issues concerning the creation and/or use of the data (e.g. experiments on humans or animals, dual use)? Describe these issues in the comment section. Please refer to specific datasets or data types when appropriate.

- Yes, human subject data
- Yes, animal data

Animal research will be conducted taking into regard animal welfare, human endpoints as well as the principles of the 3Rs (Replacement, Reduction and Refinement). Ethical approval granted from Animal Ethics Committee - P162/2022: endometriosis mouse model (Dataset Task 1.1, 1.2, 1.3)

Human biomaterial will be obtained following the three ethical principles (voluntary donation, informed consent, and protection of privacy). This material will be used following our Center's Standard Operating Procedure for the handling of human biomaterial, and in accordance with European and national regulations and guidelines. Ethical approval granted from Ethics Committee Research UZ / KU Leuven - S62818: Access to human peritoneal fluid and endometriosis lesion (Dataset Task 2.1A, 2.1B, 2.1C, 2.2A, 2.2B, 2.2C)

Will you process personal data? If so, briefly describe the kind of personal data you will use in the comment section. Please refer to specific datasets or data types when appropriate.

- Yes

S62818: Access to human peritoneal fluid and endometriosis lesion. Personal data regarding endometriosis diagnosis, age,… (Dataset Task 2.1A, 2.1B, 2.1C, 2.2A, 2.2B, 2.2C)

Does your work have potential for commercial valorization (e.g. tech transfer, for example spin-offs, commercial exploitation, …)? If so, please comment per dataset or data type where appropriate.

- Yes

Potentially leading to the identification of TRPM3 as a pharmacological target for endometriosis-associated pain.

Do existing 3rd party agreements restrict exploitation or dissemination of the data you (re)use (e.g. Material/Data transfer

agreements/ research collaboration agreements)? If so, please explain in the comment section to what data they relate and what restrictions are in place.

- No

Are there any other legal issues, such as intellectual property rights and ownership, to be managed related to the data you (re)use? If so, please explain in the comment section to what data they relate and which restrictions will be asserted.

- No

2. Documentation and Metadata

Clearly describe what approach will be followed to capture the accompanying information necessary to keep data understandable and usable, for yourself and others, now and in the future (e.g., in terms of documentation levels and types required, procedures used, Electronic Lab Notebooks, README.txt files, Codebook.tsv etc. where this information is recorded).

Data will be generated following standardized protocols. Metadata will be documented by the research and technical staff at the time of data collection and analysis, by taking careful notes in the electronic laboratory notebook (Enotebook) and/or in hard copy lab notebooks that refer to specific datasets. elabFTW (Electronic lab notebook) is also used to store test hypothesis descriptions, solution compositions, descriptions and links to protocols related to the experiment.
All datasets will be accompanied by a README.txt file containing all the associated metadata (see more details below). All data files + folders will be saved on the KU Leuven One-drive and Large Volume storage.

Will a metadata standard be used to make it easier to find and reuse the data? If so, please specify (where appropriate per dataset or data type) which metadata standard will be used. If not, please specify (where appropriate per dataset or data type) which metadata will be created to make the data easier to find and reuse.

- No

Metadata for all the tasks will be created by the instruments (eg. RT-qPCR, calcium imaging, sequencing). In other cases metadata will be collected manually according to the type of data.
Metadata will include the following elements:
• Title: free text
• Creator: Last name, first name, organization
• Date and time reference
• Subject: Choice of keywords and classifications
• Description: Text explaining the content of the data set and other contextual information needed for the correct interpretation of the data, the software(s) (including version number) used to produce and to read the data, the purpose of the experiment, etc.
• Format: Details of the file format

Additionally, we will closely monitor MIBBI (Minimum Information for Biological and Biomedical Investigations) for metadata. For specific datasets, additional metadata will be associated with the data file as appropriate. Specific examples information on the methodology used to collect the data analytical and procedural information how raw data have been processed into other forms of data standard operating procedures (SOPs), logbooks, lab protocols parameters and instrument settings for image acquisition, measurements, models or other techniques The final dataset will be accompanied by this information under the form of a README.txt document. This file will be in the top-level directory of the dataset and will also list the contents of the other files and outline the file-naming convention used. This will allow the data to be understood by other members of the laboratory and add contextual value to the dataset for future reuse.

3. Data storage & back-up during the research project

Where will the data be stored?

The data is recorded on the internal and external storage of the computers attached to equipment and is duplicated on the storage facilities of the research unit; Implantation, Placentation and Pregnancy (POPPY) research group, O&N3.

Digital files will be stored on KU Leuven servers
- Large Volume Storage
- OneDrive (KU Leuven)
- Sharepoint online
- ManGO

Tissue samples: Tissues will be stored locally in the laboratory. All human tissue samples will be registered with a Belgian biobank, in compliance with the Belgian law on human body material (dd 19-12-2008).
Omics data: omics data generated during the project will either be stored on KU Leuven servers

How will the data be backed up?

Standard back-up provided by KU Leuven ICTS for my storage solution

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

The host lab, POPPY, has a Large Volume Storgae of 5 TB. Furthermore, due to the collaboration with VIB-CBD, another Large Volume Storgae of 5 TB is available.

How will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?

Samples will be stored in the archive of O&N3, Campus Gasthuisberg. This room has a separate key to open the door. Access to O&N3 is controlled by electronic badge readers. The primary storage location for the data is on password-protected KU Leuven personal computers, with immediate backup to secure network-attached, redundant disk arrays managed by the lab, accessible only to selected members of the lab. Long term storage for data that does not require repeated fast access is provided by the KU Leuven ICTS' Large Volume Storage service.

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

Expected storage costs in the facility are estimated at 2000 EUR for 4 years. For backup, the current KU Leuven tariffs are approx. 175 EUR per TB per year. These costs will be covered by addition funding of the host lab.

4. Data preservation after the end of the research project

Which data will be retained for at least five years (or longer, in agreement with other retention policies that are applicable) after the end of the project? In case some data cannot be preserved, clearly state the reasons for this (e.g. legal or contractual restrictions, storage/budget issues, institutional policies...).

All data will be preserved for 10 years according to KU Leuven RDM policy.
All data will be retained for at least 10 years after the end of the project. Both promoter and co-promoter will take the full responsibility for data storage during the entire period

Where will these data be archived (stored and curated for the long-term)?

Large Volume Storage (longterm for large volumes)
The data will be stored on the university's central servers (with automatic back-up procedures) for at least 10 years, conform the KU Leuven RDM policy. Samples and data will be archive of the Implantation, Placentation & Pregnancy research group (POPPY facility located in O&N3)

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

The data preservation in the research facility comes at an estimated cost of 500 to 1000 EUR. The cost of archival on KULeuven servers is estimated to be between 4000 and 8000 EUR for the 3 years after project end. These costs will be covered by the funding of the host lab.

5. Data sharing and reuse

Will the data (or part of the data) be made available for reuse after/during the project? In the comment section please explain per dataset or data type which data will be made available.

- Yes, in a restricted access repository (after approval, institutional access only, …)

Data is stored in the central server of KU Leuven/UZ Leuven and will be available upon request at least 5 years after the project. The information regarding this data can be found in the publications related to the project and the responsible PI will provide the requested data.

If access is restricted, please specify who will be able to access the data and under what conditions.

Joris Vriens and Carla Tomassetti (promoter and co-promoter)

Are there any factors that restrict or prevent the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)? Please explain in the comment section per dataset or data type where appropriate.

- No

Where will the data be made available? If already known, please provide a repository per dataset or data type.

KU Leuven RDR (Research Data Repository)
Data will be available on demand after contacting promoter / co-promoter of the project.
Data will be shared under conditions of the KU Leuven

When will the data be made available?

Upon publication of research results We aim to publish our data in open-acces scientific journals.

Which data usage licenses are you going to provide? If none, please explain why.

Data Transfer Agreement (restricted data)

Do you intend to add a PID/DOI/accession number to your dataset(s)? If already available, you have the option to provide it in the comment section.

- Yes

Yes, a PID will be added upon deposit in a data repository

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

Minimal costs expected

6. Responsibilities

Who will manage data documentation and metadata during the research project?

Post doc under supervision of PI

Who will manage data storage and backup during the research project?

In our research unit, Andrei Segal Stanciu is the responsible person for data storage and back up.

Who will manage data preservation and sharing?

PIs are responsible for data preservation and sharing

Who will update and implement this DMP?

The post doc and PIs bears the end responsibility of updating & implementing this DMP.