FWO DMP Template - Flemish Standard Data Management Plan

Project supervisors (from application round 2018 onwards) and fellows (from application round 2020 onwards) will, upon being awarded their project or fellowship, be invited to develop their answers to the data management related questions into a DMP. The FWO expects a **completed DMP no later than 6 months after the official start date** of the project or fellowship. The DMP should not be submitted to FWO but to the research co-ordination office of the host institute; FWO may request the DMP in a random check.

At the end of the project, the **final version of the DMP** has to be added to the final report of the project; this should be submitted to FWO by the supervisor-spokesperson through FWO's e-portal. This DMP may of course have been updated since its first version. The DMP is an element in the final evaluation of the project by the relevant expert panel. Both the DMP submitted within the first 6 months after the start date and the final DMP may use this template.

The DMP template used by the Research Foundation Flanders (FWO) corresponds with the Flemish Standard Data Management Plan. This Flemish Standard DMP was developed by the Flemish Research Data Network (FRDN) Task Force DMP which comprises representatives of all Flemish funders and research institutions. This is a standardized DMP template based on the previous FWO template that contains the core requirements for data management planning. To increase understanding and facilitate completion of the DMP, a standardized **glossary** of definitions and abbreviations is available via the following link.

1. General Project Information	
Name Grant Holder & ORCID	Katrien Bomhals (0000-0003-1170-484X)
Contributor name(s) (+ ORCID) & roles	Kimberly Martinod (0000-0002-1026-6107): promotor Llewelyn H. Roderick (0000-0001-7065-3523): co-promotor Ruth Heying (0000-0003-0743-0823): co-promotor
Project number[1] & title	Understanding how neutrophil extracellular traps (NETs) contribute to vulnerability of the aging heart
Funder(s) GrantID[2]	11PKT24N
Affiliation(s)	X KU Leuven ☐ Universiteit Antwerpen ☐ Universiteit Gent ☐ Universiteit Hasselt ☐ Vrije Universiteit Brussel ☐ Other: Provide ROR[3] identifier when possible:

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[1] "Project number" refers to the institutional project number. This question is optional since not every institution has an internal project number different from the GrantID. Applicants can only provide one project number.

[2] Funder(s) GrantID refers to the number of the DMP at the funder(s), here one can specify multiple GrantIDs if multiple funding sources were used.

[3] Research Organization Registry Community. https://ror.org/

Please provide a short project description	This project aims to elucidate the role of neutrophils and their ability to release extracellular traps (NETs) in the development and progression of age-related cardiac fibrosis. I will use neutrophil-specific PAD4 knockout mice, with a proven cardioprotective phenotype in aging, to study NET-mediated mechanisms of cardiac aging. Single nucleus transcriptomics will generate non-biased gene expression profiles of heart tissue cells in aging upon PAD4 deficiency. Afterwards, the interaction between NETs and affected cell types and pathways will be validated in in vitro experiments. Finally, we will characterize the immune response in the hearts of aged mice to an acute stressor to identify factors that increase vulnerability of the aged heart. This could advance our mechanistic insight in immune related mediators of cardiac aging, thereby providing new opportunities to reduce the burden of CVD and improve quality of life in the elderly.

2. 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[4].

Dataset Name	Description	New or Reused	Digital or Physical	*ONLY FOR DIGITAL DATA* Digital Data Type	*ONLY FOR DIGITAL DATA* Digital Data Format	*ONLY FOR DIGITAL DATA* Digital Data Volume (MB, GB, TB)	*ONLY FOR PHYSICAL DATA* Physical Volume
		☒ Generate new data ☒ Reuse existing data	☒ Digital ☒ Physical	☐ Observational ☒ Experimental ☐ Compiled/ aggregated data ☐ Simulation data ☐ Software ☐ Other ☐ NA	☐ .por ☐ .xml ☐ .tab ☒ .csv ☒ .pdf ☐ .txt ☐ .rtf ☐ .dwg ☐ .tab ☐ .gml ☐ other: ☐ NA	☐ < 100 MB ☐ < 1 GB ☐ < 100 GB ☒ < 1 TB ☐ < 5 TB ☐ < 10 TB ☐ < 50 TB ☐ > 50 TB ☐ NA	6 freezer drawers 25 boxes in -80°C freezer

<u>More detailed information is provided in the attached data table.</u>

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[4] Add rows for each dataset you want to describe.

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.	Data from public repositories of sequencing data will be used. Previously collected mouse tissue and leftover plasma samples (by researchers from our lab) 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, please describe these issues further and refer to specific datasets or data types when appropriate.	☐ Yes, human subject data ☒ Yes, animal data ☐ Yes, dual use ☐ No If yes, please describe: Experiments performed on animals are covered by approvals from the Ethical committee for animal experimentation (ECD). All work on animals is covered by ECDs P019/2020 and P195/2018. Amendments and extensions will be made to these existing files in the future.

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[5] These data are generated by combining multiple existing datasets.

Will you process personal data[6]? If so, briefly describe the kind of personal data you will use. Please refer to specific datasets or data types when appropriate. If available, add the reference to your file in your host institution's privacy register.	☐ Yes
	☒ No
	If yes:
	
	    - Short description of the kind of personal data that will be used:
	    - Privacy Registry Reference:

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 ☒ No If yes, please comment:
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 to what data they relate and what restrictions are in place.	☐ Yes ☒ No If yes, please explain:
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 to what data they relate and which restrictions will be asserted.	☐ Yes ☒ No If yes, please explain:

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[6] See Glossary Flemish Standard Data Management Plan

3. 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).	Methodology and protocols will be described in detail in the lab notebook and digital copies (.docx files) are available for common use within the research group on shared network drives which are maintained by KU Leuven ICTS (with routine backups). Regarding analysis of sequencing data, accompanying information will be collected in .docx files for future reference. R scripts will also be stored on the KU Leuven shared network drives and accessible to members in our research group. Research carried out during this project will be published in academic journals that will be openly accessible to our peers as well as the public.
Will a metadata standard be used to make it easier to **find and reuse the data**? If so, please specify which metadata standard will be used. If not, please specify which metadata will be created to make the data easier to find and reuse. *REPOSITORIES COULD ASK TO DELIVER METADATA IN A CERTAIN FORMAT, WITH SPECIFIED ONTOLOGIES AND VOCABULARIES, I.E. STANDARD LISTS WITH UNIQUE IDENTIFIERS.*	☐ Yes ☒ No If yes, please specify (where appropriate per dataset or data type) which metadata standard will be used: If no, please specify (where appropriate per dataset or data type) which metadata will be created: We currently have no metadata standard. However, where data is collected on specific equipment, e.g. confocal, FACS, SONY ID7000 metadata relating to acquisition parameters are collected. For animal sample experiments, samples are noted in an excel file with additional information related to the isolation and use of derivatives included as well as quality of sample.

4. Data Storage & Back-up during the Research Project

Where will the data be stored?	Data is stored during collection on related equipment. Data is then transferred to network drives – personal share drive or KUL J or L drive. Data is also maintained on the equipment and is also backed up on mirrored hard drives on a 3 monthly basis. In this way raw data security is maintained. For large data sets, data is stored on the KUL L drive, which is dedicated for this purpose. At the end of the project as well as on publishing, data is transferred to the Martinod lab's archive on the L drive (large volume storage).
How will the data be backed up? *WHAT STORAGE AND BACKUP PROCEDURES WILL BE IN PLACE TO PREVENT DATA LOSS? DESCRIBE THE LOCATIONS, STORAGE MEDIA AND PROCEDURES THAT WILL BE USED FOR STORING AND BACKING UP DIGITAL AND NON-DIGITAL DATA DURING RESEARCH.[7]* *REFER TO INSTITUTION-SPECIFIC POLICIES REGARDING BACKUP PROCEDURES WHEN APPROPRIATE.*	Data is routinely backed up on all shared drives.
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 ☐ No If yes, please specify concisely: Space is available on the laboratories' J (2.6 TB) and L (5 TB) drives. Additional space is easily requested. We foresee no problems. If no, please specify:

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[7] Source: Ghent University Generic DMP Evaluation Rubric: https://osf.io/2z5g3/

How will you ensure that the data are securely stored and not accessed or modified by unauthorized persons? *CLEARLY DESCRIBE THE MEASURES (IN TERMS OF PHYSICAL SECURITY, NETWORK SECURITY, AND SECURITY OF COMPUTER SYSTEMS AND FILES) THAT WILL BE TAKEN TO ENSURE THAT STORED AND TRANSFERRED DATA ARE SAFE.* [7]	Data is not stored on individual's PCs. KU Leuven provides multifactor authentication to OneDrive for business for protecting access to strictly confidential data. All data stored on KUL share drives is routinely backed up and can be recovered after disaster. All researchers can access the J and L drive.
What are the expected costs for data storage and backup during the research project? How will these costs be covered?	Costs for OneDrive are supported centrally by KU Leuven. Desktop file storage costs €864 per TB per year and is supported by the lab's FWO research grants and internal KU Leuven project funding.

5. 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…).	Data will be preserved for the following 5 years after the end of research. The following will not be retained past the end of the study period (after publication of all results): mice organs, stained multiwell cell culture plates, plasma samples and tissue sections from mice. However, all related electronic documentation on these data will be saved.

Where will these data be archived (stored and curated for the long-term)?	Long-term storage will be via the server backend storage and large volume storage by KU Leuven ICTS. Physical lab notebooks will be stored in a central location in the office of Prof. Martinod in the Department of Cardiovascular Sciences. Published data will be made available through the use of an open repository, for example the Image Data Resource for microscopy images. This allows for further analysis of public datasets.
What are the expected costs for data preservation during the expected retention period? How will these costs be covered?	Costs are 864 euros per year and will be funded from research grants from Prof. Martinod

6. Data Sharing and Reuse	
Will the data (or part of the data) be made available for reuse after/during the project? Please explain per dataset or data type which data will be made available. *Note that 'available' does not necessarily mean that the data set becomes openly available, conditions for access and use may apply. Availability in this question thus entails both open & restricted access. For more information:* *https://wiki.surfnet.nl/display/standards/info-eu-repo/#infoeurepo-AccessRights*	☒ Yes, in an Open Access repository ☐ Yes, in a restricted access repository (after approval, institutional access only, …) ☐ No (closed access) ☐ Other, please specify:
If access is restricted, please specify who will be able to access the data and under what conditions.	/
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 per dataset or data type where appropriate.	☐ Yes, privacy aspects ☐ Yes, intellectual property rights ☐ Yes, ethical aspects ☐ Yes, aspects of dual use ☐ Yes, other ☒ No If yes, please specify:
Where will the data be made available? If already known, please provide a repository per dataset or data type.	All data in published manuscripts will be made available upon request (by email) to Prof. Martinod and deposited to the KU Leuven Research Data Repository. Flow cytometry or microscopy data raw files will be uploaded via a data repository upon study publication.

When will the data be made available? *THIS COULD BE A SPECIFIC DATE (DD/MM/YYYY) OR AN INDICATION SUCH AS 'UPON PUBLICATION OF RESEARCH RESULTS'.*	Upon publication of the research results.
Which data usage licenses are you going to provide? If none, please explain why. *A DATA USAGE LICENSE INDICATES WHETHER THE DATA CAN BE REUSED OR NOT AND UNDER WHAT CONDITIONS. IF NO LICENCE IS GRANTED, THE DATA ARE IN A GREY ZONE AND CANNOT BE LEGALLY REUSED. DO NOTE THAT YOU MAY ONLY RELEASE DATA UNDER A LICENCE CHOSEN BY YOURSELF IF IT DOES NOT ALREADY FALL UNDER ANOTHER LICENCE THAT MIGHT PROHIBIT THAT.* *EXAMPLE ANSWER: E.G. "DATA FROM THE PROJECT THAT CAN BE SHARED WILL BE MADE AVAILABLE UNDER A CREATIVE COMMONS ATTRIBUTION LICENSE (CC-BY 4.0), SO THAT USERS HAVE TO GIVE CREDIT TO THE ORIGINAL DATA CREATORS."* [8]	Data will be available on request after signing a data sharing agreement. The procedure for requesting access to data is reported in each published manuscript. Access to all published data will be considered after a request is submitted explaining the planned reuse. Only uses for research purposes will be allowed and commercial reuse will be excluded.
Do you intend to add a PID/DOI/accession number to your dataset(s)? If already available, please provide it here. *INDICATE WHETHER YOU INTEND TO ADD A PERSISTENT AND UNIQUE IDENTIFIER IN ORDER TO IDENTIFY AND RETRIEVE THE DATA.*	☒ Yes ☐ No If yes: Will be available upon publishing generated from the KU Leuven RDR deposit (DOI).
What are the expected costs for data sharing? How will these costs be covered?	No costs expected

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[8] Source: Ghent University Generic DMP Evaluation Rubric: https://osf.io/2z5g3/

7. Responsibilities	
Who will manage data documentation and metadata during the research project?	PhD researcher Katrien Bomhals will be responsible documentation of data and metadata. Prof. Martinod is responsible for the oversight of the documentation.
Who will manage data storage and backup during the research project?	PhD researcher Katrien Bomhals will be responsible for data storage and back-up during the project, with oversight by PI Prof. Martinod.
Who will manage data preservation and sharing?	Prof. Martinod will be responsible for data preservation and sharing.
Who will update and implement this DMP?	This initial version of the DMP will be adjusted throughout the project by the PhD researcher Katrien Bomhals. The PI bears the end responsibility of monitoring the updating & implementing this DMP.

PART 1: RNA sequencing

Data collection				Data processing				Data analysis				Publication			
Origin	Type	Format	Volume	Origin	Type	Format	Volume	Origin	Type	Format	Volume	Origin	Type	Format	Volume
Protocols	Digital - processed - textual	.docx	1 MB												
Scripts RNAseq analysis	Digital - processed - textual	.R	10 MB												
Demographics mice	digital - raw - numeric	.csv	1,5 GB												
Scoring sheet mice	Physical - raw - mixed numeric/textual	lab notebook	1 book	Digitalized scoring sheets mice	Digital - processed - mixed numeric/textual	.csv	1,5 GB	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	1 MB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Organs mice (heart, frozen)	Physical - raw - organic	/	/	FACS analyses	Digital - processed - numeric	.fcs 3.0	?	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	100 KB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Organs mice (heart, frozen)	Physical - raw - organic	/	/	FACS analyses	Digital - processed - numeric	.fcs 3.0	?	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	100 KB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB

PART 2: *in vitro* experiments

Data collection				Data processing				Data analysis				Publication			
Origin	Type	Format	Volume	Origin	Type	Format	Volume	Origin	Type	Format	Volume	Origin	Type	Format	Volume
Protocols	Digital - processed - textual	.docx	1 MB												
Demographics mice	digital - raw - numeric	.csv	1,5 GB												
Whole blood (mice)	Physical - raw - organic	/	/	Isolated blood cells for co-culture experiments	Physical - raw - organic	cell culture plates	/	Microscopy image	Digital - raw - image	.tiff	500 GB				
Whole blood (mice)	Physical - raw - organic	/	/	Isolated leukocytes and platelets for co-culture experiments	Physical - raw - organic	cell culture plates	/	Quantifications microscopy images	Digital - processed - mixed numeric/textual	.csv	500 MB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Whole blood (mice)	Physical - raw - organic	/	/	ELISA	Digital - raw - numeric	.csv	1,5 GB								
Whole blood (mice)	Physical - raw - organic	/	/	ELISA	Digital - processed - numeric	.csv	1,5 GB	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	100 KB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Whole blood (mice)	Physical - raw - organic	/	/	FACS analyses	Digital - raw - numeric	.fcs 3.0	?								
Whole blood (mice)	Physical - raw - organic	/	/	FACS analyses	Digital - processed - numeric	.fcs 3.0	?	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	100 KB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Whole blood (mice)	Physical - raw - organic	/	/	Metadata flowcytometer	Digital - raw - mixed numeric/textual	.fcs 3.0	?								
Organs mice (heart, fresh)	Physical - raw - organic	/	/	Isolated cells for co-culture experiments	Physical - raw - organic	cell culture plates	/	Microscopy image	Digital - raw - image	.tiff	500 GB				
Organs mice (heart, fresh)	Physical - raw - organic	/	/	Isolated cells for co-culture experiments	Physical - raw - organic	cell culture plates	/	Quantifications microscopy images	Digital - processed - mixed numeric/textual	.csv	500 MB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Organs mice (heart, fresh)	Physical - raw - organic	/	/	Isolated cells for co-culture experiments	Physical - processed - organic	Samples (freezer -80ºC)									
Organs mice (heart, fresh)	Physical - raw - organic	/	/	ELISA	Digital - raw - numeric	.csv	1,5 GB								
Organs mice (heart, fresh)	Physical - raw - organic	/	/	ELISA	Digital - processed - numeric	.csv	1,5 GB	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	100 KB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Organs mice (heart, fresh)	Physical - raw - organic	/	/	FACS analyses	Digital - raw - numeric	.fcs 3.0	?								
Organs mice (heart, fresh)	Physical - raw - organic	/	/	FACS analyses	Digital - processed - numeric	.fcs 3.0	?	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	100 KB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Organs mice (heart, fresh)	Physical - raw - organic	/	/	Metadata flowcytometer	Digital - raw - mixed numeric/textual	.fcs 3.0	?								
Organs mice (heart, lung, liver, spleen, kidney)	Physical - raw - organic	/	/	Histology slides	Physical - processed - organic	/	/	Quantifications microscopy images	Digital - processed? - mixed numeric/textual	.csv	1 GB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB

PART 3: *in vivo* experiments

Data collection				Data processing				Data analysis				Publication			
Origin	Type	Format	Volume	Origin	Type	Format	Volume	Origin	Type	Format	Volume	Origin	Type	Format	Volume
Protocols	Digital - processed - textual	.docx	1 MB												
Scripts statistical analyses	Digital - processed - textual	.R	100 KB												
Demographics mice	Digital - raw - numeric	.csv	1,5 GB					Descriptive statistics	Digital - processed - numeric/textual	.R or .pzfx	100 KB	Text	Digital - processed - textual	.docx	250 KB
Scoring sheets mice	Physical - raw - mixed numeric/textual	Lab notebook	/	Digitalized scoring sheets mice	Digital - processed - mixed numeric/textual	.csv	1,5 GB	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	100 KB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Buprenorphine dosing	Physical - raw - numeric	Lab notebook	1 book												
Whole blood samples (mice)	Physical - raw - organic	/	/	Peripheral blood counts (mice)	Digital - processed - numeric	.csv	1,5 GB	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	100 KB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Whole blood samples (mice)	Physical - raw - organic	/	/	Plasma samples (mice)	Physical - raw - organic	Samples (freezer -4ºC)	/								
Whole blood samples (mice)	Physical - raw - organic	/	/	ELISA	Digital - raw - numeric	.csv	1,5 GB								
Whole blood samples (mice)	Physical - raw - organic	/	/	ELISA	Digital - processed - numeric	.csv	1,5 GB	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	100 KB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Whole blood samples (mice)	Physical - raw - organic	/	/	FACS analyses	Digital - raw - numeric	.fcs 3.0	?								
Whole blood samples (mice)	Physical - raw - organic	/	/	FACS analyses	Digital - processed - numeric	.fcs 3.0	?	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	100 KB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Whole blood samples (mice)	Physical - raw - organic	/	/	Metadata flowcytometer	Digital - raw - mixed numeric/textual	.fcs 3.0	?								
Organs mice (heart; fresh)	Physical - raw - organic	/	/	FACS analyses	Digital - raw - numeric	.fcs 3.0	1,5 GB								
Organs mice (heart; fresh)	Physical - raw - organic	/	/	FACS analyses	Digital - processed - numeric	.fcs 3.0	1,5 GB	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	1 MB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Organs mice (heart; fresh)	Physical - raw - organic	/	/	Metadata flow cytometer	Digital - raw - mixed numeric/textual	.fcs 3.0	10 MB								
Organs mice (spleen; fresh)	Physical - raw - organic	/	/	FACS analyses	Digital - raw - numeric	.fcs 3.0	?								
Organs mice (spleen; fresh)	Physical - raw - organic	/	/	FACS analyses	Digital - processed - numeric	.fcs 3.0	?	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	100 KB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Organs mice (spleen; fresh)	Physical - raw - organic	/	/	Metadata flowcytometer	Digital - raw - mixed numeric/textual	.fcs 3.0	?								
Organs mice (lung, liver, spleen, kidney)	Physical - raw - organic	/	/	Tissue blocks	Physical - processed - organic	Samples (freezer -20ºC)	/								
Organs mice (heart)	Physical - raw - organic	/	/	Tissue blocks	Physical - processed - organic	Samples (histology drawers, RT)	/								
Organs mice (heart)	Physical - raw - organic	/	/	Tissue blocks	Physical - processed - organic	Samples (freezer -20ºC)	/								
Organs mice (heart)	Physical - raw - organic	/	/	Histology slides	Physical - processed - organic	Samples (histology drawers, RT)	/								
Organs mice (heart)	Physical - raw - organic	/	/	Histology slides	Physical - processed - organic	/	/	Microscopy image	Digital - raw - image	.tiff	500 GB				
Organs mice (heart)	Physical - raw - organic	/	/	Histology slides	Physical - processed - organic	/	/	Microscopy image	Digital - processed - image	.tiff	100 GB	Image	Digital - processed - image	.tiff	10 GB
Organs mice (heart)	Physical - raw - organic	/	/	Histology slides	Physical - processed - organic	/	/	Quantifications microscopy images	Digital - processed - mixed numeric/textual	.csv	500 MB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
Organs mice (heart)	Physical - raw - organic	/	/	Histology slides	Physical - processed - organic	/	/	Metadata microscopy plate reader	Digital - raw - mixed numeric/textual	CZI or ZVI	100 MB				
Organs mice (heart)	Physical - raw - organic	/	/	Histology slides	Physical - processed - organic	/	/	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	60 MB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
/	/	/	/	Echocardiography analysis	Digital - raw - numeric	.bimg	15 GB								
/	/	/	/	Echocardiography analysis	Digital - raw - numeric	.mimg	55 GB								
/	/	/	/	Echocardiography analysis	Digital - processed - numeric	.mxml	1 GB	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	15 MB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB
/	/	/	/	Echocardiography analysis	Digital - raw - numeric	.pimg	1 GB								
/	/	/	/	Echocardiography analysis	Digital - processed - numeric	.png	15 GB	Statistical analyses	Digital - processed - mixed numeric/textual	.R or .pzfx	15 MB	Graphical representations	Digital - processed - image	.eps/.pdf	4 GB