Repolarization heterogeneity beyond the infarct border zone as a whole
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.

MRI	MRI data collected from myocardial infarction porcine model (MI + 4wk)	Reuse existing data	Digital	Experimental	DICOM	<10GB
Electrophysiology (EP)	EP data collected from myocardial infarction porcine model (MI + 4wk)	Reuse existing data	Digital	Experimental	Ensite Precision proprietary format / Ensite precision CSV format	<100GB
Dune-Copasi	Software for multi-compartment reaction-diffusion simulation	Generate data	Digital	Software	GitLab KUL repository	<1GB
BayesianEP	Software for MCMC	Generate data	Digital	Software	GitLab KUL repository	<1GB

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:

KU Leuven C1 (2018) - ... (Rik Willems - Piet Claus)

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, animal data

All animal data was obtained with permission of the KU Leuven Ethical Committee

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.

- No

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.

- No

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).

- Software is documented online in its respective GitLab repository.
- MRI acquistions are stored on the server of the experimental cardiology department. MRI data is accompanied by Excel overview of animal and date of recording. Experimental protocols are also present there.
- EP studies are stored on the server of the experimental cardiology department. MRI data is accompanied by Excel overview of animal and date of recording. Experimental protocols are also present there.

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

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

Where will the data be stored?

- For reports and manuscripts, the group has a shared file server, but individual researchers are also responsible for tracking and ensuring copies in their personal server space.
- Experimental Cardiology KU Leuven has dedicated server space for data storage from imaging and electrophysiology studies during and after the research.
- Biological samples are stored in a dedicated room within the department with controlled access.
- Software version control will be handled by KU Leuven GitLab.

How will the data be backed up?

The dedicated KU Leuven server space is equipped with secure backup mechanisms for data storage.

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

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

Server space access is restricted to people direct involved in the project.

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

Costs are covered within the department / the PI.

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 5 years after the project.

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

Experimental Cardiology KU Leuven has dedicated server space for data storage from imaging and electrophysiology studies.

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

Costs are covered within the department / the PI.

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 an Open Access repository

Experimental animal data relating to publications will be made available after publication.
Software will be hosted on GitLab repositories. Releases of the software will be mirrored to a public GitLab repository.

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

No restrictions

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.

Animal data will be made available including cMRI and electrophysiology data. We will use KU Leuven RDR tool to do this.

When will the data be made available?

Data will be made available after publication of the related articles.

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

CC-BY-NC-4.0

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

Not yet available. Will be obtained from KU Leuven RDR.

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

Costs related to KU Leuven RDR are covered institution wide.

6. Responsibilities

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

Dylan Vermoortele

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

Dylan Vermoortele

Who will manage data preservation and sharing?

Piet Claus

Who will update and implement this DMP?

Dylan Vermoortele