FWO DMP Template

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.

1. General Information	
Name applicant	**Sebastiaan Dalle**
FWO Project Number & Title	**12Z8622N - The INTERACT project: CannabINoid recepTors as kEy playeRs in skeletAl musCle plasTicity**
Affiliation	☒ **KU Leuven** ☐ Universiteit Antwerpen ☐ Universiteit Gent ☐ Universiteit Hasselt ☐ Vrije Universiteit Brussel ☐ Other:
2. Data description	
Will you generate/collect new data and/or make use of existing data?	☒ **Generate new data** ☐ Reuse existing data

Describe the origin, type and format of the data (per dataset) and its (estimated) volume

*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**	**Created how**
WP1: Data mice experiments: body weight, food intake, muscle/tissue weight	Paper, .xls	0.5 GB	balance
WP1, 2: Physical data mice biological tissues: skeletal muscle, adipose, liver, kidney and spleen tissue	Physically stored @ -80°C		Obtained upon sacrifice
WP1: Physical data mice experiments: grip strength	Paper, .xls	0.1 GB	Grip strength dynamometer
WP1, 2, 3: Raw images of protein bands in biological tissue (skeletal muscle, adipose, liver, kidney and spleen tissue)	.sgd, .tiff	1 GB	Western blotting & pictures taken with Genesnap software
WP1, 2, 3: Protein expression levels in biological tissue (skeletal muscle, adipose, liver, kidney and spleen tissue)	.xls	0.5 GB	Protein bands quantified with Genetool software
WP1, 2, 3: Gene expression levels in biological tissue (skeletal muscle, adipose, liver, kidney and spleen tissue)	.xls	0.5 GB	PCR with QuantStudio™ 3 Real-Time PCR System
WP1, 2, 3: Cellular localization of target proteins or general tissue structure	.nd2, .tiff	10 GB	Images obtained with immunohistochemistry (protein - haematoxylin & eosin, Sirius Red, collagen staining) by

			Nikon microscope
WP1, 2, 3: Quantification of staining intensity / relative area	Paper, .xls	0.5 GB	ImageJ
WP3: Descriptive data human participants: Age, food intake, physical activity, medical history, drug use, body weight	Paper, .doc, .xls	0.5 GB	Clinical / medical examination/questioning, scale
WP3: Upper leg lean mass	Raw images converted to tiff and quantifications in xls	10 GB	CT or DEXA-scan UZ Leuven
WP3: Muscle strength and functional capacity	.xls	0.5 GB	Biodex, leg press, hand grip dynamometer

3. Ethical and legal issues

Will you use personal data? If so, shortly describe the kind of personal data you will use AND add the reference to your file in your host institution's privacy register. *In case your host institution does not (yet) have a privacy register, a reference is not yet required of course; please add the reference once the privacy register is in place in your host institution.*	☒ **Yes** ☐ No If yes: - Privacy Registry Reference: NA - Short description of the kind of personal data that will be used: Medical/clinical data including age, food intake, physical activity, medical history, drug use, body weight

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** ☐ No If yes: - Reference to ethical committee approval: We will conduct research experiments on humans. Physical data of human subjects include biopsies containing muscle tissue and blood withdrawals. Digital data include muscle imaging with CT or DEXA, microscopic and biomolecular analyses and instrumented assessments. All procedures / outcomes have been approved by the Ethics Committee Research UZ/KU Leuven in a previous projects from our group (e.g. S61809). We will conduct research experiments in mice. Physical data of mice include biological tissues such as skeletal muscle, adipose, kidney, spleen, liver tissue. Digital data include microscopic and biomolecular analyses and instrumented assessments. Mice experiments have been approved by the KU Leuven Animal Ethics Committee: P113/2021.
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?	☐ Yes ☒ **No** If yes, please comment:
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?	☐ Yes ☒ **No** If yes, please comment:

4. Documentation and metadata

What documentation will be provided to enable understanding and reuse of the data collected/generated in this project?	Approved Ethical Commission: description of study protocol (.pdf) Informed Consents Form: original black copies (.pdf) and signed hardcopies (printed paper) Experimental protocols: description how the data are collected and generated (software, materials, set-up, settings (.docx) and how data are processed (software, protocol, guidelines, …) (.docx text files) Measurement forms: notes during data collection (printed paper) Raw experimental data: storage of original physical data and folders with original digital data in software-specific files Processed data: folder with digital data in the software-specific files, spreadsheets with results (.xls) Subject recruitment files: only subject study code, personal data (for example, age, weight, height, …,) short overview of assessments.
Will a metadata standard be used? If so, describe in detail which standard will be used. If not, state in detail which metadata will be created to make the data easy/easier to find and reuse.	☒ **Yes** ☐ No If yes, please specify: Metadata (.xls file) will be provided on the mice experiments: body weight, food intake, muscle weights, grip strength. Metadata (.xls file) will be provided on the human experiment: height, age, body weight, food intake, muscle strength and functionality, drug intake, medical history) .

5. Data storage & backup during the FWO project	
Where will the data be stored?	Physical data (biological tissues) from mice and human experiments will be stored at -80°C freezers of the Exercise Physiology Research Group of the KU Leuven. Digital data files will be stored on secure KU/UZ Leuven servers and networks. Hard copies of the Informed Consent forms, measurement forms and paper lab notebooks are kept in locked cabinets in the lab.

How will the data be backed up?	We will use the back-up facilities of the KU Leuven IT services. The KU Leuven servers and networks are backed up automatically. Physical muscle biopsy data and the analyzed specimens will be kept for 5 years post-project in freezer (-20° till -80°, depending on the sample type), at the laboratory of the Exercise Physiology Research Group. Digital data automatically stored on the acquisition laptop during data collection, will be manually transferred via external hard drive to the secure servers. This external hard drive is provided as automatic back-up of the acquisition laptop.
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 no, please specify:
What are the expected costs for data storage and backup during the project? How will these costs be covered? *Although FWO has no earmarked budget at its disposal to support correct research data management, FWO allows for part of **the allocated project budget** to be used to cover the cost incurred.*	No additional costs are expected.
Data security: how will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?	All physical data, printed forms and notebooks are present in the labs, which are secured. The access to the KU Leuven server is u-number and password controlled. Data will be stored with password security only accessable for researchers involved in the projects and controlled by the PI .

6. Data preservation after the end of the FWO project

FWO expects that data generated during the project are retained for a period of minimally 5 years after the end of the project, in as far as legal and contractual agreements allow.

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 data such as physical and digital data, will be retained for the minimum preservation term of 5 years after the end of the project.
Where will these data be archived (= stored for the long term)?	Physical muscle biopsy data and the analyzed specimens will be kept for 5 years post-project in freezer (-20° till -80°, depending on the sample type), at the laboratory of the Exercise Physiology Research Group. Digital data automatically stored on the acquisition laptop during data collection, will be manually transferred via external hard drive to the secure servers. This external hard drive is provided as automatic back-up of the acquisition laptop.
What are the expected costs for data preservation during these 5 years? How will the costs be covered? *Although FWO has no earmarked budget at its disposal to support correct research data management, FWO allows for part of **the allocated project budget** to be used to cover the cost incurred.*	No additional costs are expected.

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)?	☐ Yes ☒ **No** If yes, please specify:
Which data will be made available after the end of the project?	During the project as well as after the end of the project, the published data will be available upon request by email. These published data contain the results of processed coded data presented in tables. Decoded personal data will never be shared.

Where/how will the data be made available for reuse?	☐ In an Open Access repository ☐ In a restricted access repository ☒ **Upon request by mail** ☐ Other (specify):
When will the data be made available?	Published data will be made available at the time of publication in case of open access or upon request for other publications. Additional, not-published data will be made available for external users upon request during the postproject trajectory (based on LRD contract).
Who will be able to access the data and under what conditions?	During the project: All researchers involved in the project. After the project: All researchers involved in the project and external users upon request, with contact via LRD.
What are the expected costs for data sharing? How will these costs be covered? *Although FWO has no earmarked budget at its disposal to support correct research data management, FWO allows for part of **the allocated project budget** to be used to cover the cost incurred.*	No additional costs are expected.

8. Responsibilities	
Who will be responsible for the data documentation & metadata?	Prof. Katrien Koppo (WP1, 2, 3a) and Dr. Cedric Moro (WP3b).
Who will be responsible for data storage & back up during the project?	Prof. Katrien Koppo (WP1, 2, 3a) and Dr. Cedric Moro (WP3b).
Who will be responsible for ensuring data preservation and sharing?	Prof. Katrien Koppo (WP1, 2, 3a) and Dr. Cedric Moro (WP3b).

Who bears the end responsibility for updating & implementing this DMP? *Default response: The PI bears the overall responsibility for updating & implementing this DMP*	Prof. Katrien Koppo.