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	**Jolien Pattyn**
FWO Project Number & Title	**1150822N – Uncovering the regulation of ethylene production through the formation of MACC in tomato**
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).*

WP 1: Isolation and identification of AMT

Includes*: T1.1 AMT purification and sequence identification using reversed proteomics, T1.2 Sequence identification using comparative proteomics, T1.3 Sequence identification using transcriptome sequencing, T1.4 Ectopic AMT in vitro activity*

Origin of data	Type of data	Format	Estimated volume
AMT activity and Bradford assays of fractions(column chromatography, comparative proteomics and yeast extracts)	plant extract measurements (numerical)	labbook .pdf .xlsx	2 MB
Extracts (tomato and yeast) and column chromatography fractions	plant/yeast material		500
SDS-PAGE and western blot of protein extracts	image	labbook .tif	250 MB
Mass spec data	list of proteins present and quantification	.xlsx .scaffold	100 MB
RNA sequence data	sequences	.raw .xlsx	20 GB
Putative AMT list	sequences	.fasta .genious	5 MB
Created model files	Model files	.R	100 MB

WP 2: Characterization of AMT biochemistry, expression and localization

Includes*: T2.1 AMT kinetic and optimal enzyme conditions, T2.2 AMT expression and abundance, T2.3 AMT subcellular localization*

Origin of data	Type of data	Format	Estimated volume
AMT kinetics and conditions for optimal activity	characteristics of enzymes (numerical)	labbook .xlsx	2 MB
expression profiles (based on RT-qPCR and reporter lines)	quantification of expression (numerical) images	labbook .xlsx .tif	50 MB
reporter lines	constructs	.fasta .genious	5 MB
seeds of reporter lines	plant material		around 100
created model files	model files	.R	100 MB

WP 3: Characterization of the biological relevance of AMT

Includes*: T3.1 AMT knock-out lines, T3.2 Overexpression of AMT*

Origin of data	Type of data	Format	Estimated volume
knock out and overexpression lines	constructs	.fasta .genious	5 MB
phenotyping plants	sensor data plant measurements (numerical)	labbook .txt .xlsx	max 2 GB?
seeds of transformed lines	plant material		1000
(M)ACC extracts	plant material		500

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: - 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 ☒ No If yes: - Reference to ethical committee approval:
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?	**Labbook, protocols (.dox), general calculation sheets (.xlsx), README files for characteristics raw data lists**

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:

5. Data storage & backup during the FWO project	
Where will the data be stored?	**BOX and university's central servers**
How will the data be backed up?	**All data is immediately backed up in BOX, with daily back-up to the 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 ☐ No ~~If no, please specify:~~ **The lab currently uses 8 GB of the available 2 TB on the server. Physical data (extract, protein, RNA and cDNA samples) will be stored in the lab -80 °C freezer for long term storage. The lab has sufficient space in the -80 °C freezer. The -80 °C freezer is equipped with an automated temperature alarm, provided by the KU Leuven central dispatch team. A backup contact list is provided in case the -80 °C goes into alarm. Seeds are stored in the labs seedstock at 4°C.**
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.*	**We don't expect extra cost for data storage. But in case the lab does not have enough storage room, the PI has budget to buy more.**
Data security: how will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?	**The ICTS service of KU Leuven secures the network drive of the shared folder. Unauthorized persons do not have access to this folder.**

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 will be retained for the expected 5 year period.**
Where will these data be archived (= stored for the long term)?	**University's central service, -80°C freezer and seedstock (4°C)**
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.*	**We don't expect extra costs. In case there will be, the PI had budget for this.**

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?	**We aim to publish all data and make it available for requests afterwards. Until publication the data will be protected.**

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?	**After publication of the research results**
Who will be able to access the data and under what conditions?	**All lab members will have access to the data. The published data will be available upon request for non-lab members.**
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.*	**Data sharing is organized by the KU Leuven and are free for the lab.**

8. Responsibilities	
Who will be responsible for the data documentation & metadata?	**Jolien Pattyn**
Who will be responsible for data storage & back up during the project?	**Jolien Pattyn**
Who will be responsible for ensuring data preservation and sharing?	**Prof. Bram Van de Poel**
Who bears the end responsibility for updating & implementing this DMP? *Default response: The PI bears the overall responsibility for updating & implementing this DMP*	**Prof. Bram Van de Poel**