

DMP title

Project Name C3 - FungiWave - DMP title

Project Identifier C3/21/021

Grant Title C3/21/021

Principal Investigator / Researcher Prof. Raf Dewil

Institution KU Leuven

1. General Information

Name of the project lead (PI)

Prof. Raf Dewil

Internal Funds Project number & title

C3/21/021 - - " Geïntensifieerd proces voor de simultane winning van chitosan en B-glucan uit schimmelbiomassastromen (FungiWave)."

2. Data description

2.1. Will you generate/collect new data and/or make use of existing data?

- Generate new data

2.2. What data will you collect, generate or reuse? Describe the origin, type and format of the data (per dataset) and its (estimated) volume. This may be easiest in a numbered list or table and per objective of the project.

Type of data	Source (experiment definition)	Format of data	Volume	Where created
Numerical	Compositional analysis of feedstock, extraction data, chemical composition of extracts, purity of extracts, mass balances, ...	spreadsheets (.xlsx, .csv, .xlm)	MB	WP1,2,3
Images	Microscopy images of extracts, PSD measurements	photos (.tif, .jpg)	> 10 GB	WP 3
Procedures	Description of methodologies for seaweed extraction and characterisation	text files (.docx / .txt / ...)	MB	WP 1,2,3

3. Ethical and legal issues

3.1. Will you use personal data? If so, shortly describe the kind of personal data you will use. Add the reference to the file in KU Leuven's Record of Processing Activities. Be aware that registering the fact that you process personal data is a legal obligation.

No

3.2. 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).

No

3.3. Does your research 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, the project outcome is expected to attract attention from the industrial groups. Current IP is

already filed (WO2021116426A1). In case of additional IP being filed, general patent data sharing restrictions will be asserted prior to patent publication (and discussed LRD).

3.4. 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 regarding reuse and sharing are in place?

Currently we are in negotiation with Citribel (Material Transfer Agreement, MTA) for further use of their *Aspergillus niger* in the extraction experiments. As soon as the details of the MTA are finalized, these will be incorporated into the DMP. Currently the MTA is being finalized by LRD.

4. Documentation and metadata

4.1. What documentation will be provided to enable understanding and reuse of the data collected/generated in this project?

1. Numerical data, obtained from extraction/characterisation tests (TOC/TN, ICP, ...) transferred to .xlsx and will be collected per respective test. These .xlsx files will be stored and ordered per extraction test and per component/sample in separate folders. The breakdown of folders will look like this: Extraction test DATE > component data > .xlsx_DATE , Within the .xlsx file, each tab corresponds to a optimized/investigated parameter.

2. Images of the extracted compounds and particle size distribution will be stored in separate folders per extraction test. These files (.jpg, .tiff,) will be stored and ordered per extraction test in separate folders. The breakdown of folders will look like this: Extraction test DATE > component images > .jpeg/tiff_DATE. The following information will be stored (as a ReadMe/doc file) together with the image (microscopy) file: dimensions, image type, bit-depth, pixel sizes and microscope settings (methodology/protocol).

3. Procedures, description of methodologies for component extraction (ultrasound/microwave, ...) and characterisation will be stored via a .txt/.doc file per extraction test/extracted component in separate folders.

4. For samples that are exchanged between the researchers involved, a google spreadsheet is available that contains following information: sample handling, data sample generation, sample conditions (fridge, freezer, thawing), date of sample shipment, date sample received and rough estimation of the sample contents. Each month a printscreen is made of this google spreadsheet and stored on the Teams page/onedrive

4.2. 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.

NO

5. Data storage and backup during the project

5.1. Where will the data be stored?

The time-stamped master copy of the data will be kept on our research unit central storage facility (KU Leuven server) and onedrive. Data shared with project partners will be stored in a dediacted Teams environment.

5.2. How will the data be backed up?

The data will be stored on the university's central servers with automatic daily back-up procedures and Sharepoint back-up procedures are in place.

5.3. 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.

Currently there is sufficient storage & backup capacity. All reports are stored at Teams. Unpublished data of the researchers is stored on the servers and cloud services provided by KU Leuven.

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

The cost for data preservation of 5 years is estimated to be 500 EUR. These costs are covered by the coordination budget.

5.5. Data security: how will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?

The data at each partner institute are kept in a secure environment to which only designated personnel (also from the other partners) will be given personal access.

6. Data preservation after the end of the project

6.1. Which data will be retained for the expected 10 year period after the end of the project? If only a selection of the data can/will be preserved, clearly state why this is the case (legal or contractual restrictions, physical preservation issues, ...).

All data will be retained for this period.

6.2. Where will these data be archived (= stored for the long term)?

As confirmed by the KU Leuven RDM policy, the data will be stored on the university's central servers (with automatic back-up procedures) for at least 10 year

6.3. What are the expected costs for data preservation during these 10 years? How will the costs be covered?

The cost for data preservation of 10 years is estimated to be 500 EUR for KU Leuven.

7. Data sharing and re-use

7.1. 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 or because of IP potential)?

This section will be extended as soon as the MTA with Citribel has been finalized (see 3.4).

7.2. Which data will be made available after the end of the project?

All data supportive of the published research findings, unless licensable/patentable (in which case they will be under embargo for as long as needed to finalise the valorisation procedures).

7.3. Where/how will the data be made available for reuse?

- In a restricted access repository
- Upon request by mail

7.4. When will the data be made available?

- Upon publication of the research results
- After an embargo period. Specify the length of the embargo and why this is necessary

Embargo will be established for all data which may lead to valorisable output. The data will be kept under embargo for as long as it takes to finalise this output.

7.5. Who will be able to access the data and under what conditions?

The links to the full datasets (with doi number) will be provided as supplement to the publication which is supported by these data, as an open access dataset under a CC-BY license. Therefore, it will be available to anyone for any purpose, provided that they give appropriate credit to the creators.

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

The cost for data preservation of 10 years is estimated to be 500 EUR for KULeuven.

8. Responsibilities

8.1. Who will be responsible for the data documentation & metadata?

Nick Sweygers

8.2. Who will be responsible for data storage & back up during the project?

Nick Sweygers

8.3. Who will be responsible for ensuring data preservation and sharing?

Nick Sweygers and PI (Prof. Raf Dewil)

8.4. Who bears the end responsibility for updating & implementing this DMP?

The end responsibility for updating and implementing the DMP is with the supervisor (promotor).