

SPATIOTEMPORAL CONTROL OF PROTEASE ACTIVITY BY PHOTOACTIVATABLE INHIBITORS

DMP TITLE

ADMIN DETAILS

Project Name: Spatiotemporal control of protease activity by photoactivatable inhibitors - DMP title

Project Identifier: D-2022-1484

Grant Title: G035022N

Principal Investigator / Researcher: Steven Verhelst

Institution: KU Leuven

1. GENERAL INFORMATION

Name applicant

Steven Verhelst

FWO Project Number & Title

- Spatiotemporal control of protease activity by photoactivatable inhibitors

Affiliation

- KU Leuven

2. DATA DESCRIPTION

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

- Generate new data

Describe in detail the origin, type and format of the data (per dataset) and its (estimated) volume. This may be easiest in a table (see example) or as a data flow and per WP or objective of the project. 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	Estimated volume	how created
Compound characterization data - LC-MS	raw files of Shimadzu LCMS2020	1GB	day-to-day runs and final purity determination

Compound characterization data - NMR	raw files of Bruker NMR 300, 400 or 600 MHz	2 Gb	day-to-day analysis
Gel images (coomassie stains, fluorescent scans, Western blots)	*.gel, *.tif	2 Gb	day to day scans of biochemical experiments
microscopy images	*.tif	50-100 GB	Incucyte live cell imaging data,
Enzymatic assays	raw files of 96-well plate reader	20-100 MB	SpectraMax ID3 plate reader

3. LEGAL AND ETHICAL ISSUES

Will you use personal data? If so, shortly describe the kind of personal data you will use. Add the reference to your file in KU Leuven's Register of Data Processing for Research and Public Service Purposes (PRET application). Be aware that registering the fact that you process personal data is a legal obligation.

- No

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)

- No

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

We do not exclude that any data (primarily novel chemical compounds with favorable properties) will be patented. After patenting, data will be shared in regular scientific manuscripts and this would not pose any restrictions to data sharing.

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?

- No

4. DOCUMENTATION AND METADATA

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

1. Synthetic protocols will be described in detail in the lab journals with referral to LC-MS and NMR characterization data.
2. Gel and Western blot data: detailed protocols will be noted down in the lab journals with referral to the gel data with lab journal number and page. Settings of the acquisition settings will be recorded.
3. For imaging data, the following information will be noted: dimensions, image type, bit-depth, pixel sizes and microscope settings. The methodology and protocol will be described in detail in the lab journals. A ReadMe file of the image collection will be written.

Will a metadata standard be used? If so, describe in detail which standard will be used. If no, state in detail which metadata will be created to make the data easy/easier to find and reuse.

- No

Each data created in the project will be linked by name to a lab journal name (initials of the experimenter), notebook number and page number, so that it can be linked to specific experiments.

5. DATA STORAGE AND BACKUP DURING THE FWO PROJECT

Where will the data be stored?

How is backup of the data provided?

Data will be stored on the university's central servers and mirrored in a second datacenter, as well as syncing with a OneDrive (for each person involved)

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

1. There will be 4 TB of storage capacity available (2x2) at OneDrive for the two people involved in the project.
2. There is currently 5 TB storage capacity available as long term external hard drive capacity. This will be expanded as needed. Extra back up at KU Leuven long term storage will be arranged during the course of this project.

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

Expected costs for long term storage are 504.30 EUR per 5 TB/year. These costs will be paid from consumable costs of this project, and - once the project ends, by a other funds from the laboratory.

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

Data will be password protected and encrypted (OneDrive) and secured for access by a limited amount of users (large data storage)

6. DATA PRESERVATION AFTER THE FWO PROJECT

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 kept for at least 5 years, and all relevant research data (data related to PhD theses, publications and data still relevant for future publications) will be kept for a period of minimally 10 years according to KU Leuven research data management policy.

Where will the data be archived (= stored for the longer term)?

1. The data will be stored on the university's central servers (with automatic back-up procedures) for at least 10 years, conform the KU Leuven research data management policy

What are the expected costs for data preservation during the retention period of 5 years? How will the costs be covered?

1. The expected amount of data will be approximately 2TB or less. The estimated costs for storage are 202 EUR/year and will be covered by laboratory funds.

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)?

- No

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

1. All data will be available upon request. Where appropriate, public data repositories will be used (e.g. ProteomeXchange for proteomics data, if generated).

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

- Other (specify):

All data will be available upon request. Where appropriate, public data repositories will be used (e.g. ProteomeXchange for proteomics data, if generated).

When will the data be made available?

- Upon publication of the research results

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

Full datasets will be available to anyone for scientific purposes, provided that they give appropriate credit to the creators.

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

No expected costs for data sharing.

8. RESPONSIBILITIES

Who will be responsible for data documentation & metadata?

The two researchers involved in the project as well as the PI will be responsible for data documentation and metadata

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

The two researchers involved in the project as well as the PI will be responsible for data documentation and metadata

Who will be responsible for ensuring data preservation and reuse ?

The PI will be responsible for data preservation and reuse.

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

The PI bears the end responsibility of updating & implementing this DMP.