DMP title

Project Name SANI-TROUBLE - DMP title

Project Identifier C3/21/041

Grant Title C3/21/041

Principal Investigator / Researcher Deirdre Cabooter

Description Afvalwaterzuiveringsinstallaties (AWZI's) zijn momenteel niet ontworpen om micropolluenten afkomstig van de menselijke consumptie van geneesmiddelen te verwijderen. Bijgevolg komen vele farmaceutische micropolluenten in het aquatisch milieu terecht via AWZI's, wat een risico vormt voor aquatische ecosystemen en de menselijke gezondheid. Het doel van dit project is om de bron van deze vervuiling aan te pakken door een nieuw toiletblok te ontwikkelen dat zorgt voor een chemische oxidatie van farmaceutische micropolluenten uit toiletlozingen. ToilethygiÃ«neproducten zijn veelgebruikte huishoudchemicaliÃ«n die ontworpen zijn om toiletten te verfrissen en schoon te maken en om bacteriegroei en kalkaanslag te voorkomen. Het product dat in dit voorstel wordt ontwikkeld, zal in deze norm voor thuiszorg worden opgenomen, zodat farmaceutische micropolluenten op een compacte en flexibele manier aan de bron van de verontreiniging in huishoudens kunnen worden verwijderd voordat zij de AWZI's bereiken. Op deze manier zal de functionaliteit van de in de handel verkrijgbare toiletblokken verbeterd worden.

Institution KU Leuven

1. General Information

Name of the project lead (PI)

Deirdre Cabooter, Raf Dewil, Guy Van den Mooter

Internal Funds Project number & title

C3/21/041
Toiletblok voor het verwijderen van persistente micropolluenten in sanitair afvalwater (Sani-TRouBLe)

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: chromatograms, these are UV absorbances and m/z values measured as a function of time. These data can easily be exported as CSV.files and then further be processed in Excel, hence creating xls.data.

Formulation data will be obtained and presented in the form of Excel files (xls.data). Degradation data will be obtained by integrating chromatograms and will also be respresented in the form of Excel files (xls.data).

Data will be created using a liquid chromatography instrument coupled to a UV detector (or diode array detector) or mass spectrometer. Throughout the project, it is expected that a total volume of 5 GB will be created (one chromatogram is roughly 500 KB).

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 idea is to obtain a patentable product.

This regards data involving the release potential of certain chemicals that will be compressed in a rim block and their potential to degrade pharmaceuticals. Obviously these data will be restricted.

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?

No, no 3rd parties are involved

4. Documentation and metadata

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

Chromatograms will receive following identifier: Name Column_dimensions column_date. The methodology and protocol will be described in detail in the lab book. A ReadMe file of the data collection will be written.

Protocol for formulation composition, protocol for compounding composition: documentation in lab note book and Word file (.doc file)

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. Copies can be made and kept on personal devices. Since we will also collaborate with researchers from other research groups, we will use Box for active use of the data during the project.

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.

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.

Yes.

We will request back-up capacities of 100 GB

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

Expected cost for data storage during the project: 2,7 Euro/year. We will use part of the allocated project budget to cover the cost incurred.

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

The data will be stored on the university's secure environment.

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 generated during the project will be stored for 10 years after the end of the project. These data are the result of substantial financial and personal efforts and therefore of high value for our research group.

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

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 RDM policy.

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

The collected data will be hosted on the servers of KU Leuven. In view of the expected size of the database (around 5 GB), estimated cost will be 27 euro over 10 years.

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)?

Yes, as we intend to patent the developed product, data regarding the performance of the product will have to remain restricted until the patent is granted.

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

Data regarding the performance of the product can only be made available after the patent is granted (after the project)

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

- In a restricted access repository

We will use the new RDR platform for data sharing, when possible

7.4. When will the data be made available?

- After an embargo period. Specify the length of the embargo and why this is necessary

After a patent has been granted (difficult to estimate when exactly)

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

Only the researchers directly involved in the project will have access to the data. Once a patent has been granted, data can be made available publicly

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

Needs to be determined

8. Responsibilities

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

The researchers directly employed on the project and the PI's

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

The researchers directly employed on the project and the PI's

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

The PI's

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).