Plan Overview

A Data Management Plan created using DMPonline

Title: Decontamination of Mercury Polluted- Water and Agricultural Soils in Ghana using Nanotechnology

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Template: University of Manchester Generic Template

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Project abstract:

The proposed research project aim at removing toxic elements that pollute water bodies and soil as a result of illegal mining activities in Ghana. One major example of such toxin is Mercury. Mercury is a dangerous chemical element, that when it enters a human body will cause death. However, Mercury is used to extract gold from gold ores, and unfortunately, it is not well handled by illegal miners, and it finds its way into rivers and soils which end up poisoning the food chain. Very small particles, called Nanoparticles, can be used to efficiently remove Mercury from Mercury polluted water and soil. However, the method and materials used to make good quality nanoparticles are expensive and less environmentally friendly and will limit the use of nanoparticles in treatment of water and soil contaminated with Mercury. Our research seek to use simple and relatively cheaper and environmentally friendly materials in the preparation of good quality nanoparticles for mercury removal from water and soil.

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Decontamination of Mercury Polluted- Water and Agricultural Soils in Ghana using Nanotechnology

Manchester Data Management Outline

1. Is this project already funded?

- Yes

Will you be applying for funding from any of the following sources? If your funder isn't listed, please enter in the free text box provided.

Royal Society

3. Is The University of Manchester the lead institution for this project?

- No (please provide details of the lead institution below and your role in the project)

KNUST Ghana

4. What data will you use in this project (please select all that apply)?

- Acquire new data

5. Where will the data be stored and backed-up during the project lifetime?

- Dropbox for Business

6. If you will be using Research Data Storage, how much storage will you require?

- < 1 TB

7. If you have a contractual agreement with a 3rd party data provider will any of the data associated with this project be sourced from, processed or stored outside of the institutions and groups stated on your agreement?

- No

8. How long do you intend to keep your data for after the end of your project (in years)?

- < 5 years

Questions about personal information

Personal information or personal data, the two terms are often used interchangeably, relates to identifiable living individuals. Special category personal data is more sensitive information such as medical records, ethnic background, religious beliefs, political opinions, sexual orientation and criminal convictions or offences information. If you are not using personal data then you can skip the rest of this section.

Please note that in line with data protection law (the General Data Protection Regulation and Data Protection Act 2018), personal information should only be stored in an identifiable form for as long as is necessary for the project; it should be pseudonymised (partially de-identified) and/or anonymised (completely de—identified) as soon as practically possible. You must obtain the appropriate ethical approval in order to use identifiable personal data.

9. What type of person identifying information will you be processing (please select all that apply)?

- No sensitive or personal data

10. Please provide details of how you plan to store, protect and ensure confidentiality of the participants' information as stated in the question above.

n/a

11. If you are storing personal information will you need to keep it beyond the end of the project?

- No

12. Sharing person identifiable information can present risks to participants' privacy, researchers and the institution. Will the participants' information (personal and/or sensitive) be shared with or accessed by anyone outside of the University of Manchester? This includes using 3rd party service providers such as cloud storage providers or survey platforms.

- No

13. If you will be sharing personal information outside of the University of Manchester will the individual or organisation you are sharing with be outside the EEA?

- No

14. Are you planning to use the personal information for future purposes such as research?

- No

15. Who will act as the data custodian or information asset owner for this study?

DJ Lewis

16. Please provide the date on which this plan was last reviewed (dd/mm/yyyy).

04/03/2019

Project details

What is the purpose of your research project?

The proposed research project aim at removing toxic elements that pollute water bodies and soil as a result of illegal mining activities in Ghana. One major example of such toxin is Mercury. Mercury is a dangerous chemical element, that when it enters a human body will cause death. However, Mercury is used to extract gold from gold ores, and unfortunately, it is not well handled by illegal miners, and it finds its way into rivers and soils which end up poisoning the food chain. Very small particles, called Nanoparticles, can be used to efficiently remove Mercury from Mercury polluted water and soil. However, the method and materials used to make good quality nanoparticles are expensive and less environmentally friendly and will limit the use of nanoparticles in treatment of water and soil contaminated with Mercury. Our research seek to use simple and relatively cheaper and environmentally friendly materials in the preparation of good quality nanoparticles for mercury removal from water and soil.

What policies and guidelines on data management, data sharing, and data security are relevant to your research project?

RS Guidelines

Responsibilities and Resources

Who will be responsible for data management?

Michael Baah Mensah

What resources will you require to deliver your plan?

Dropbox for business service supplied by UoM

Data Collection

What data will you collect or create?

Experimental data

How will the data be collected or created?

Laboratory work /
Characterisation facilities

Documentation and Metadata

What documentation and metadata will accompany the data?

None

Ethics and Legal Compliance

How will you manage any ethical issues?

none expected

How will you manage copyright and Intellectual Property Rights (IPR) issues?

Through UMIP

Storage and backup

How will the data be stored and backed up?

Dropbox for business servive via UoM

How will you manage access and security?

Dropbox guest access
Host is DJ Lewis

Selection and Preservation

Which data should be retained, shared, and/or preserved?

none in particular

What is the long-term preservation plan for the dataset?

Repository upon publication

Data Sharing

How will you share the data?

Repository

Are any restrictions on data sharing required?

No