

Background

There is an increasing interest for monitoring the occurrence of antimicrobial resistance in non-clinical reservoirs. It is virtually impossible to obtain samples from healthy humans and there can be ethical problems with sensitivity of data collected from individuals. Thus, sewage has been suggested as an alternative to obtain population-wide samples.

Purpose

To collect representative sewage samples from cities around the world and analyze these for the occurrence of pathogens, antimicrobial resistance genes and other hazards, using, amongst others, metagenomic analysis.

Timeline

The current Global Sewage Surveillance project is a six year-project, running in the years 2017-2022. During these six years, sampling for point prevalence studies have been set-up five times. The sampling months were: June and November 2017, June and November 2018, and December 2019. We wish to continue with annual sample collection, and for 2020 this will take place in October-November.

Approach

Sampling: From each city, a representative sewage sample of 1 Liter should be collected from the city's main sewage pipe prior to inlet to the treatment plant, from open sewage or from pipes leading out to rivers, sea etc.

Storage of samples: The samples must be stored at -80 degrees Celsius and sent to DTU Food, Denmark, for analysis after agreement with DTU Food.

Funding possibilities related to sample collection

As organizers of this sampling we offer to provide sample containers and packaging material. In addition, we cover all shipping expenses incl. custom fees. Additional funding is not available related to the sample collection or potential additional analysis at the participant institute.

Contact

Note

An asterisk (*) indicates a question that requires an answer.

Contact information

Please add complete contact information and a valid address for shipping of materials.

* 1. Institute name:

* 2. Contact name:

* 3. Address 1:

4. Street No.:

5. Additional Address 2

6. Additional Address 3

* 7. Zip Code

* 8. City Name:

* 9. Country

* 10. Telephone No.:

* 11. Email Address

Example

12. For future publications, we would like to record your ORCID number:

(ORCID provides a persistent digital identifier that distinguishes you from every other researcher and, through integration in key research workflows such as manuscript and grant submission, supports automated linkages between you and your professional activities ensuring that your work is recognized. See more at <https://orcid.org/about/what-is-orcid/mission>)

ORCID Number

Comment

Example

List of expected sampling sites (1-10 per country)

* 13. What country and city could potentially be sampled (indicate at least one country/city)

Country	<input type="text"/>
City 1	<input type="text"/>
City 2	<input type="text"/>
City 3	<input type="text"/>
City 4	<input type="text"/>
City 5	<input type="text"/>
City 6	<input type="text"/>
City 7	<input type="text"/>
City 8	<input type="text"/>
City 9	<input type="text"/>
City 10	<input type="text"/>

* 14. Would you need that we (DTU Food) send you sample containers and packaging material for shipment (Note, shipments containing less than 5L are not IATA restricted as per SP A197, packagings must however be strong and of good quality)?

- Yes, please send us sample containers and packaging material.
- We request 1 bottle of 1 L
- We request 2 bottles of 1 L
- We request 5 bottles of 1 L
- We request more bottles, specified in comments field below
- No, we provide the relevant sample containers and packing material.
- Comment on amount of bottles:

* 15. Will it be possible to record the GPS position of the sampling site? Please note that the GPS coordinates can be extracted by e.g. Google maps

	Yes	No
GPS position	<input type="radio"/>	<input type="radio"/>

* 16. Will it be possible to provide a digital image of the sampling site

	Yes	No
Digital image	<input type="radio"/>	<input type="radio"/>

* 17. Will it be possible to provide a pH of the sewage sample?

	Yes	No
pH	<input type="radio"/>	<input type="radio"/>

* 18. Will it be possible to measure the temperature of the sewage sample?

	Yes	No
Temperature	<input type="radio"/>	<input type="radio"/>

* 19. To share sample material and/or sequences for DTU Food, would you need to obtain permission (e.g. a material transfer agreement (MTA) or another type of permit from the authorities)?

Please note that this project continues for six years. We therefore ask you to consider obtaining a permit covering the entire project period of six years. Should this prolong the processing time to obtain the permit, please apply for one shipment or one year, only.

- No permission is required.
- Yes, we need to obtain a permission and will contact DTU Food

Example