



SUPPORTIVE INFORMATION

DATASET FOR BACTERIA

SAMPLE RELATED DATASET FOR BIOBANKING OF MICROBIOLOGICAL SPECIMEN

An important aim of Swiss Biobanking Platform is to promote exchange and use of biological samples. Researchers need to be able to assess the suitability of samples for their planned application. Relevant sample data need thus to be documented by the biobanks in a standardized way. Defining the essential data linked to samples supports the goal of improving the quality of samples, making samples from different biobanks comparable and searchable (interoperability), promoting their exchange and enhancing visibility.

As an outcome of the Working Groups (WG) Liquid and Tissue two preanalytical datasets (DS) were launched for public consultation end of 2017. These DS are based on (i) the CEN/TS specifications developed by the European Commission for Standardization with respect to the new ISO standard for biobanks (ISO 20387) and (ii) the Standard PRE-analytical Code (SPREC) released by the International Society of Biological and Environmental Repositories (ISBER). Both groups emphasize the essential need of documenting all relevant environmental and biological factors as well as all pre-analytical variables that are expected to have an influence on the sample composition. To guarantee the interoperability among different biobanks it is indeed crucial that the documentation of sample history follows common standards. This applies also to biobanks in microbiology and the WG Microbiology decided – in line with the strategy of the WG Liquid/Tissue - to develop DS for microbiological samples. Harmonizing the terminology and defining the minimum of common overlapping information is a prerequisite for the interoperability among biobanks and facilitates the exchange of samples. Unlike for the tissue or liquid samples, no such comparable best practices like the CEN/TS specifications or SPREC exist. In consequence, the microbiological DS is based on the expertise of the group members.

The group decided to develop in a first step a DS for bacteria, followed by DS adapted to viruses and possibly fungi and/or parasites. It contains variables related to general information on the bacterial sample, its history, growth conditions, storage information and other characteristics, such as strain resistances. To avoid free text, a dropdown list for the variables is proposed (if applicable). Each field is tagged either as mandatory or recommended for two reasons: (i) to identify its relevance and (ii) to specify fields necessary to construct a future e-catalog, that is planned by SBP with the aim to enhance the visibility of Swiss biobanks and the Swiss biobanking community to international biobanking networks. Finally, the DS is sample specific and excludes information on the biobank or biobank-infrastructure. The latter information will be specified and recorded centrally at SBP since it is common to all specimen types.