Abstract Guidelines:

https://www.europebiobankweek.eu/abstract-guidance-timeline/

Abstracts should be submitted electronically, in English only, and not surpass 250 words. Submissions should be divided into the following sections:

- Paper title
- Author(s)(Surname, Initial)
- Institution(s)
- Introduction summarising the background/ problem
- Material & methods used to obtain and analyse the data
- Results or findings from your work
- Discussion and conclusion that will help others in their work
- References
- Full contact details

Please follow the instructions on the abstract form carefully, making sure to select one of the available formats, depending on your preference. The Scientific Committee reserves the right to assign your submission to a different type of presentation than your preference if deemed appropriate. As terms and conditions of your participation in the conference, kindly note the following:

- No travel/ accommodation allowances are provided to speakers
- Presenters are expected to register for the conference; registration fee is not waived
- In some cases, in order to provide our attendees with a broad range of perspectives, the Scientific Committee reserves the right to limit the number of presentations chosen from a single affiliation
- Presentations from sponsors/ exhibitors are welcome; however, companies are asked to respect the scientific nature of this meeting and not to promote their products and services during their presentation (except the "Pitch your innovative idea" session).

Abstract Review and Notification

The Scientific Committee will review the abstracts according to the relevance to the session topic and select the most appropriate ones. All abstract submitters should be prepared to present the abstract as an oral or poster presentation.

Authors of abstracts selected for a poster presentation will be required to print (based on official dimensions) and set up their poster in a dedicated area at the conference venue. Each poster session will comprise guided poster tours per topic: two poster chairs per topic will walk along the posters together with the attendees of that particular poster session. The poster presenter is asked to join the guided poster tour and present his/her poster to the chairs and audience at the designated slot. For each poster, 1.5 minutes presentation and 1.5 minutes discussion time are foreseen. Poster chairs will rate the posters of their session and propose the top three ranked for overall poster prize selection.

Sustainable organization of biobank freezing infrastructure to be a safe harbor for biomaterials

Gruber, Franz (1), Doppler, Christian (1), Ivek Propadalo, Elena (1), Kubasta, Christa (2), Langer, Rupert (3,5), Liebmann Eva (1), Spiegl-Kreinecker, Sabine (4,5), Bernhard, David (1)

 Center for Medical Research, Johannes Kepler University (member of BBMRI.at), Linz, Austria, (2) Institute for Medical and Chemical Laboratory Diagnostics - Blood Depot - Tissue Bank, Kepler University Hospital, Linz, Austria, (3) Clinical Institute of Pathology and Molecular Pathology, Kepler University Hospital, Linz, Austria, (4) Department of Neurosurgery, Kepler University Hospital GmbH, Johannes Kepler University, Linz, Austria, (5) Clinical Research Institute for Neurosciences, Johannes Kepler University Linz and Kepler University Hospital, Linz, Austria

Introduction

A key task of biobanks is to guarantee that biomaterials are stored under safe temperature conditions, which includes permanent maintenance of the cold chain under predefined temperature values. We report our undertaking to set up an emergency system from scratch and our experiences in the follow up period. The system contains technical components, computer and communication tools and trained staff.

Methods

The following measures were implemented

- Connection with the facility management system and a communication tool to notify emergency staff as central part of the emergency system. In parallel, an independent alarm monitoring system was used.
- Equivalent reserve equipment was installed.
- A data logger system was placed inside storage racks in order to document biomaterial temperature during transfer between freezers.
- Comparison of the temperature robustness of nitrogen cryogenic tanks and freezers.

Findings

Diverse risk factors were identified with the potential that the worst case happens, i.e. unintended thawing of samples. Preventive measures were implemented to circumvent risks.

Some relevant risk factors are

- Failure in alarm chain and emergency staff is not notified
- Reserve equipment not ready for use
- Blackout: insufficient backup electricity
- Fast temperature increases in ULT freezer
- Uncontrolled biomaterial temperature in case of emergency transfer

Conclusion

Risk factors were identified and considered in setup of the emergency system.

A bundle of emergency and control measures was implemented to maintain and document safe and constant cold chain conditions and conceptual approaches to minimize temperature risk for biomaterials were identified (e.g. temperature robustness in cryovessels versus storage in electrical driven freezers).

Keywords

biobank emergency system, temperature control, risk prevention