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POSTER SESSIONS

Abstracts

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523: BLACKOUT – Preparing for the Unexpected

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Introduction:

Following a multi-year development stage, Biobank Graz (BBMRI.at partner) implemented a blackout concept in 2025, which shall guarantee the maintenance of specified storage conditions for up to 14 days of power outage.

Methods:

All supply lines and device functions were questioned and checked for emergency power supply. Based on the results, a spare refrigeration system and personnel protection measures were retrofitted, LN₂ refueling intervals reduced and the supply via diesel generator redesigned. The Biobank Graz is secured in terms of supplies and equipment, but... BLACKOUT.....WHAT NOW?

Results:

In addition to technical retrofitting further measures were set, such as an annual training on the organizational level; assigning key personnel for on-site presence in case of a blackout; regular full load testing of the emergency power system; defining meeting points in terms of time and location. Furthermore, checklists for monitoring the devices and work instructions were elaborated; a blackout box containing potentially essential items such as a radio, power banks, flashlights, walkie-talkies, etc., completes the biobank's blackout package.

Discussion and Conclusion:

Blackouts most likely happen unexpectedly and it is difficult to fully anticipate their impact. Nonetheless, the Biobank Graz team has tried to consider all eventualities as thoroughly as possible by performing a multifaceted evaluation of the circumstances and an extensive organizational planning to ensure the safety of personnel and the sample quality.