
Sustainability and biobanking: scrapping of biorepositories or continuing use

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Enhancing the Sustainability of Biobanking: Deciding Between Scrapping Biorepositories and Prolonged Utilization

Fully automated biorepositories capable of storing cryotubes at -80°C became commercially available approximately 15 years ago. Over this period, biobanking units have evolved in response to changing medical needs. Consequently, some of the initially constructed biorepositories no longer align with the current concept of a biobank unit and are deemed unnecessary. This raises the question: should they be scrapped or continue to be utilized?

In 2016, the Integrated Research Biobank (IRB) in Greifswald acquired a second Kiwi store from LiCONiC. Although the purchase included all trolleys, it came with a limited number of cassettes to cut costs at the time. Subsequently, the Biobank Graz - a partner of BBMRI.at - decided to dismantle their LiCONiC store, which was originally established in 2012. Through communication between the parties, a decision was made to repurpose the Biobank Graz cassettes in Greifswald.

LiCONiC actively participated in the communication process to assess the compatibility of the cassettes. Following a positive initial check based on engineering drawings, two cassettes were sent to the LiCONiC headquarters, where a hands-on examination also yielded positive results. For safety reasons, all cassettes will undergo a thorough check by LiCONiC before being sent to Greifswald. In addition to technical considerations, financial aspects were negotiated between Biobank Graz and Greifswald, resulting in a mutually beneficial win-win situation.

Scientific infrastructures, such as biobanking units, should enhance their sustainability by promoting the continuous use of components, such as stainless steel cassettes. This can be achieved locally or through collaborations with other biobanking units.