Biobanking in NE Mexico for biomedical research and clinical needs.

Rodríguez-Palacios R[1], Walle-Gloria NL[1], and Barrera-Saldaña HA[1,2].
[1]Biochemistry and Biobank Laboratory of Vitagénesis, SA. LANSEIDI-CONACyT at Innbiogem, SC.
[2]Schools of Medicine and Biology of UANL. Monterrey, Mexico.

Background

The advancement of biomedicine demands tools that translate its achievements into services to both the scientific community and the pharma/biotech industry. Biobanks are powerful tools that collect, process, store, manage, and distribute biospecimens and their associated clinical/demographic data to users carrying out studies aimed at causing a real public health impact.

For our laboratory to offer pharma/biotech companies support for their projects with the highest quality possible biospecimens we adopted the Best Biobanking Practices from ISBER (https://www.isber.org/).

Methods

As a result of the pandemics, great effort has been dedicated to help the health ecosystem through a diagnostic service for SARS CoV-2 (by RT-PCR). Emphasis was put on proper sample collection, preanalytical characterization, and storage in ultra-low freezers. Their pre-analytical characterization included determining yield and purity by spectrophotometry using the NanoDrop™ 2000 (Thermo-Fisher. Mexico City, Mexico).

Results

We biobanked and supplied to internal (our Genetics laboratory) and external (validation protocols of pharma/biotech international companies) clients almost 2,000 RNA samples. Given the preanalytical qualification of the biospecimens, they performed satisfactorily for our clients' diagnostic and innovation protocols needs.

Conclusions

The biobanking services provided to both our diagnostic laboratory and to pharma/biotech companies that contracted our services delivered research materials of the highest quality. Being a private biobank recognized now nationally and internationally by public and private institutions has allowed us to participate in projects evaluating innovative diagnostics methods and devices.