

CASE STUDY: ONCOLOGY LABORATORY



Oncology Laboratory Challenge:

Monitor, generate reports for audits and manage alarms for biological samples and refrigerated drugs in cold rooms and freezers up to $-180\text{ }^{\circ}\text{C}$).



■ CAPACITY

- Multinational company specialized in biotechnological studies.
- Cancer Institute, diagnosis and services for over 15 pharmaceutical multinationals.
- Leads R&D in liquid biopsy.

■ PROJECT

The value of the biological samples kept by the Catalan biotech company are invaluable.

Likewise, validated GxP systems are required with the capacity to measure down to $-200\text{ }^{\circ}\text{C}$.

■ PROBLEM

Have a complete E2E solution to monitor the temperatures of refrigerators and freezers and guarantee the conservation of stored products.

Log data on the preservation of drugs and biological samples and have reports to pass the demanding audits common in the sector.



Information from the registry at all times of the drugs and biological samples stored and transported.



Monitoring of the correct status of stored products and alarm management.



Guarantee the preservation of samples and generate automatic reports for audits under GxP.

Oncology Laboratory Solution - Result:

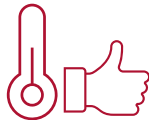
At AKO we proposed an automated registration and monitoring system to guarantee the correct conservation of the refrigerated products stored.



■ SOLUTION

The 100% temperature and moisture logger with totally wireless **NB-IoT AKODATA** connectivity (24 hours / 7 days a week) allows automated monitoring of the status of stored refrigerated drugs and biological samples, with access to information through our monitoring platform **AKONET.Cloud**.

With an autonomy of up to 8 years, **AKONET.Cloud** supports temperatures up to -40 °C and redundancy to ensure the integrity of the equipment. Validated according to GxP consultancy.



Technical robustness of the solution resistant to temperatures of -180 °C



Reliability of the logging and monitoring system

■ RESULTS

Incorporating a continuous monitoring and logging system, Alarm Alerts provided the following results:

■ -180 °C

The system monitors temperatures down to -200 °C in cryogenic freezers.

■ GxP

Validated by a specialized consultant.

■ 100%

Management of alarms and automated reports.

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Benefits of the solution

Our solution monitors and controls the cold chain to reduce health safety risks, product wastage and reduce operating costs derived from inappropriate storage or transportation climate conditions.



AKODATA NB-IoT

Temperature and relative moisture logger with NB-IoT connectivity Sensor, monitor and wireless temperature and moisture recorder, solution for monitoring the conservation of the cold chain, avoiding health safety risks, as well as wastage and loss of stored products, and control the proper functioning of the refrigeration installations.



The connection with **AKONET.Cloud** allows monitoring of temperature and moisture conditions, thus knowing at all times the status of the installation and the preserved product. It also helps improve the quality and life of the stored product, setting up reports and providing alarm alerts in case of any type of unforeseen event.



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Benefits of the solution



Automatic and continuous temperature logging.



Moisture logging



Alarms in real time via e-mail and phone call. 24/7 Alarm System in case of exceeding the pre-established limits.



Weekly and/or monthly **reports**, suitable for internal audits or quality certifications.



On-demand **reports** documenting incidents.



Indicators, reports and graphs aimed at **maintenance and quality with impact on the business.**



Specific indicators (kinetic mean temperature).



Direct device connectivity to the cloud that **does not interfere with the client's infrastructure and IT security policies.**



Temperature and moisture monitoring Solution for assets distributed in **multiple locations.**



Very easy to install and activate with **very fast deployments. No wiring.**



Scalable to thousands of devices.



Secure and unified access to **key information to integrate into operations.**



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