

Case study – University of the Highlands and Islands

Reliable sample storage backs research at UHI

The University of the Highlands and Islands (UHI) is an integrated, tertiary establishment with 10 colleges and research institutions spread around Inverness, the Highlands and Islands, Moray and Perthshire regions. The university's Division of Biomedical Sciences conducts a broad spectrum of research, from schizophrenia genetics and immunology through to studies into melanoma and mesothelioma. Lab Manager, Janet Adamson, oversees several laboratories within the division, and her role includes ensuring the safe preservation of a wide range of diverse biological materials used across multiple long-term projects. Some of the most significant assets in the department include a decades-old library of samples from schizophrenia patients, developed in collaboration with Aberdeen University, as well as liquid biopsy samples linked to a multi-centre study for mesothelioma in conjunction with NHS Highland and NHS Bristol. All of the programmes within the division rely on the secure storage of blood, plasma, sputum, pleural effusions, cell lines, DNA extracts, genetically modified organisms (GMOs), and standards used in analytical workflows.



UHI NEEDS:

- Reliable -80 °C freezers for a wide variety of sample types
- Long-term stability for irreplaceable clinical and research materials
- Robust equipment that copes with heavy daily use
- Prompt technical support if issues arise

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Lab Manager, Janet Adamson

Cold storage under pressure

The multiple UHI research groups rely on shared cold storage facilities, which puts the existing freezers under constant strain. This is especially important because many of the stored samples have been collected over decades, and any variations in temperature could potentially jeopardise ongoing research and compromise valuable donor-contributed material. Janet explained: "Some of these samples were donated by people who are no longer with us, and we therefore take our responsibility very seriously. It is a real concern for us, and this is why we started to worry about the reliability of our existing freezers, especially with multiple researchers constantly opening and closing them."

UHI had also previously used liquid nitrogen (LN2) for storing cell lines, but this became increasingly impractical.

"We removed our LN2 vessels for safety and logistical reasons, as the IHU Inverness Campus is quite far north and transport can be difficult in winter," Janet continued. "In winter it gets very snowy and, if the LN2 delivery couldn't get through, we weren't able to replenish the storage containers, so we decided that freezers were a much more practical option for us."



A reliable solution for diverse research needs

With all of these factors in mind, UHI invested in several Haier Biomedical's DW-86L728J -80 °C freezers to strengthen its cold storage capacity.* A key factor in choosing Haier Biomedical was independent recommendation from service engineers familiar with multiple brands, giving the team confidence that the units would perform consistently under heavy daily usage.

"We have freezers from a variety of companies, and the engineers who service them told us that Haier Biomedical products are really reliable and competitively priced."

The units now support the range of research activities and are accessed regularly. Janet described:

"The Haier Biomedical freezers are in daily use across our labs. They're opened and closed constantly, and they've held up really well. We find them easy to work with and far more practical than a previous brand, which had awkward handles that caused issues in tight spaces. Our racking system and inventory approach has also worked seamlessly with the new freezers, supporting smooth day-to-day sample management."

Importantly, Haier Biomedical's support has been prompt and effective. Janet added:

"The company's engineer has been fantastic, responding quickly to our requests and making sure everything was sorted."

This responsiveness reassured the team that help would be available whenever required, a critical requirement when safeguarding long-term research collections.

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A dependable addition to UHI's research infrastructure

Haier Biomedical's ultra-low temperature freezers have strengthened UHI's cold storage infrastructure, providing dependable performance for a wide variety of biomedical research programmes. The freezers support the secure preservation of irreplaceable patient-derived materials and day-to-day laboratory samples across multiple research groups.

"They've been a really solid addition to our lab infrastructure; we know we can rely on them," Janet concluded.

PROJECT OUTCOMES

- Reliable -80 °C storage for critical, long-term research collections
- Robust performance under frequent daily access
- Rapid, effective technical support when issues occur
- Improved usability compared with older freezers, especially in constrained spaces



View our cold storage here:



* UHI purchased through Haier Biomedical's key channel partner WolfLabs.



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