



Children's Hospital Boston Finds Inventory Solution that Sticks

Children's Hospital Boston conducts diabetes research focused on insulin signaling, and is home base for Morris White, Ph.D., a pioneering diabetes researcher. He is an investigator with Howard Hughes Medical Institute, a professor at Harvard Medical School, and worked 20 years previously at Joslin Diabetes Center.

Dr. White's lab employs 10 postdoctoral fellows, a lab manager and four research technicians. In late 2005, administrative assistant David Criss began a project to inventory frozen cell lines and DNA samples.

The lab's samples are stored in liquid nitrogen tanks or in large freezers set at -20°C or -80°C depending on need. Combined, these storage facilities can hold hundreds of thousands of vials, each containing a frozen lab sample.

Criss quickly realized the lab's previous inventory system didn't meet its needs. "Many times when I'd pull a vial from a freezer, the vial came free but the label stayed inside the box," Criss recalls. "The labels became brittle, cracked and came right off. The system was non-intuitive; I printed out the entire list of aliquots and other information, searched boxes, but couldn't find anything. Boxes had either been shifted around or moved."

With no label, data is lost. "If you're trying to save cells or a cell line, it's pretty critical," Criss says. "Some vials had handwriting on them, but each postdoc uses their own language, and anyone's handwriting can be hard to read." The vials are typically small, plastic 1.8 ml cryovials with screw-tops.

"Then we met with Brady and heard about labels that would stick to frozen samples and wouldn't come off," Criss says.

With a Brady [LABXPRT™ printer](#), Criss began using Brady Freezerbondz™ I (B490) labels. Recently, the lab switched to new Freezerbondz II (B492) labels so the staff could use a squarer size label that can be easily handled with gloves and offers more space for additional lines of text.

"This printer is a very useful little tool," Criss said. "I can take it to any workstation, easily print out 16 to 20 labels at a time and apply them to vials before they're frozen. These labels will actually stick to a previously frozen vial, which was a big problem. That's why we're so impressed with Freezerbondz." In fact, when the hospital's data

protection group (which establishes best practices in data management) visited the White Lab, Criss says the labels were "perfect, pristine, with no sign of coming off" even after two months in liquid nitrogen.

The lab uses a data matrix code, which encodes 20 times more data than traditional linear bar code. Brady also provides a [CodeReader™ 3 \(CR3\) Scanner](#) that has an LCD screen so it is easy for Criss to view bar code numbers and verify log-ins to save time. "If I have a vial with me, I just click the scanner and it brings up exactly what I need by pulling up all the info on my PC using the Axiope™ software package Catalyzer for freezer management."

Catalyzer runs on the lab's PC, but also runs on Mac and Linux systems and has the Brady label sizes and drivers the lab uses resident in the software.

Criss has begun labeling postdocs' brand-new samples with the new inventory system; this will become the project's main focus. "We want to make sure that 10 to 15 years from now we can still access information about each sample. Having labels that actually stick and stay on all vials is an amazing help."