SCIENTIFIC LABORATORY SUPPLIES

Case Study

Barts Cancer Institute Tissue Culture Labs Sustainability

The Challenge

Sustainability is now a major driving force in most laboratories and all scientists are looking for ways to minimise their environmental impact as well as reducing cost per analysis. One area where this is particularly pertinent is automated cell counting, where the need to reduce wastage of single-use plastic slides is of significant economic and environmental concern.

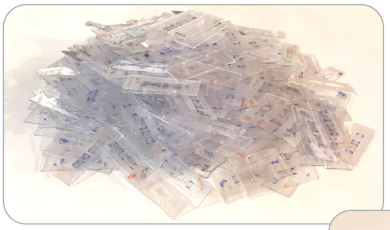
Automated cell counting is a powerful tool used in cell biology for its speed and reproducibility of the results and Barts Cancer Institute (BCI) has a long history of using state of the art automated cell counting technologies for day-to-day analysis in some of their tissue culture labs. Heavy usage of these automated cell counters led to a significant increase in the cost of operation and amount of single-use plastic slides going to waste. Moreover, the scientist in the laboratory favour single-use plastic slides over re-useable slides which need to be cleaned manually plus expose the user to biohazardous waste during the cleaning process while also generating solid biohazardous waste such as contaminated tissue paper.

Our Approach

We pride ourselves on introducing and providing novel technologies and eco-friendly equipment in order to help labs become greener as well as reduce the cost of their operations. Hence, we supplied the Barts Cancer Institute (BCI) with iWash™, the world's first and only slide washer especially designed for single-use cell counter slides. Scientists at BCI immediately loved the concept and the idea of recycling the single-use cell counter slides in their labs. Some of the significant benefits of using this new technology are:

- Only 20 seconds to clean and recycle the slides
- Recycle each disposable slides more than 20 times - without affecting accuracy
- Dramatically reduces the amount of single-use, plastic waste
- No more manual cleaning of re-useable slides

- Cleans new slides for improved analytical performance
- No resulting biohazardous waste
- No more running out of slides
- Recovery of old, dried up slides
- No calibration, no annual service
- Small size and compatibility with all major automated cell counters
- Return on investment typically within three months
- A unique product for cell counting sustainability (typically 95%)



An example of recycled slides used by scientists in one week after labs started to use iWash™ (25 slides)

An example of single-use slides collected from the tissue culture labs in one week (approx. 450 slides)

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The Results

The BCI tissue culture lab has significantly reduced the number of single-use slides which they order quarterly from 16,000 a year to 1,000 a year, giving savings of approx. £15000 per year and reduction of thousands of plastic slides which would otherwise go to waste. Considering the added cost of logistics, storage and disposal this saving is over £17,000/year. A real bonus is that the tissue culture facilities have become more eco-friendly and the scientist are proud to be playing their part in making their research greener.

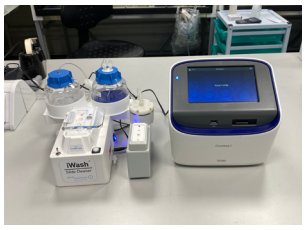
Testimonials:

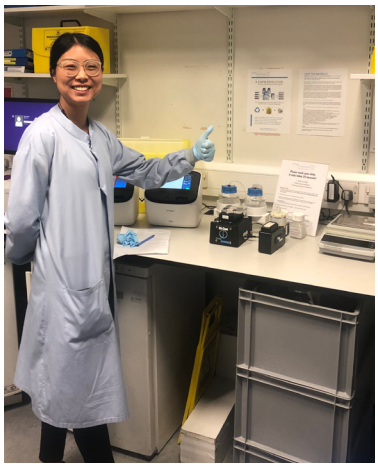
"The iWash™ Slide Cleaner is a sustainability breakthrough in lab consumable usage. Instead of using hundreds of slides a week we are now using only a few. This means savings in cost and helping to save the planet. The slides come completely clean after washing and are like new, so there is no adverse effect on data at all."
Haemato-Oncology Laboratory Manager

"The innovative iWash™ Slide Cleaner has integrated into our cell culture workflow seamlessly; it is easy to use and adopted well by researchers. There is minimal maintenance, uses minimal bench space and helps towards our sustainable targets. The cost benefits by reusing slides allows our funding to go further, as well as being eco-friendly"
Principal Laboratory Manager

"Since purchasing the iWash™ slide washer, we have reduced the amount of slides we purchase drastically. We recently had an issue with our supply of slides resulting in us being unable to purchase slides for almost 1 month. Because of the slide washer, our Tissue Culture work did not suffer and continued at the usual level of productivity as we were able to reuse our slides. The slide washer is very user friendly which I why I think it has become so popular in our lab."
Laboratory manager, Molecular Oncology

"I have been routinely using the iWash™ slide washer in our tissue culture facility at Barts Cancer Institute for several months. It really is easy to use and very fast at cleaning and drying the plastic slides we use for our cell counter. It only takes 20 seconds to wash and dry a slide and I've not experienced any problems with reusing washed slides for cell counting on the Countess II cell counter. Thanks to the iWash™ slide washer, the slides can be reused multiple times and I've probably saved using dozens of new slides and therefore money that could be better spent elsewhere. This is a great product which saves both money and plastic waste."
Postdoctoral researcher





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