

HOW TO AVOID CELL CULTURE FAILURE IN THE LAB

DISCOVER IN THIS INFOGRAPHIC HOW TO IDENTIFY RISK FACTORS AND MINIMISE THEM TO INCREASE YOUR CHANCES OF CELL CULTURE SUCCESS.

WHAT IS

THE TRUE COST OF CELL CULTURE FAILURE?

A failed cell culture doesn't just affect one petri dish - the knock-on issues can add up to a real impact on your lab.



DELAYS

Cell cultures can take **60+ days** to complete, a long time to wait for a failed result.

REDUCED REVENUE

Each cell culture can cost anywhere from **\$100-\$900*** depending on the application. Failed cultures and the costs of repeating processes can lead to missed revenue that quickly adds up.



REPUTATIONAL DAMAGE

Paying clients expect results; every time you fail to deliver has an impact.

SAFETY CONCERNS

Cell culture failures can affect the integrity of other analytical processes.



INACCURATE PREPARATION AND FORECASTING

if you don't know that processes will work, you cannot manage workloads and plan effectively.

BEST PRACTICES

TO AVOID CELL CULTURE FAILURE

Build a more profitable, efficient and successful lab by reducing, mitigating and eliminating the most common causes of cell culture failure.

1 KEEP ACCURATE RECORDS

Identify issues and learn from mistakes with proper record-keeping and by sharing insights.



2 ENSURE PROPER STORAGE

Ensure correct storage temperatures and conditions to prevent cells or culture media becoming contaminated.

3 THAW CELL STOCK CORRECTLY

Prepare stock for culture by following the manufacturer's guidance to thaw successfully.



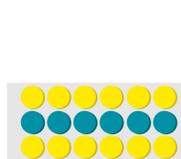
4 LIMIT FLUORESCENT LIGHT EXPOSURE

In some culture media fluorescent light can produce oxidising hydrogen peroxide molecules and cytotoxic free radicals which can kill cells. To combat these effects, minimise exposure to fluorescent light and/or use media unaffected by fluorescent light.

5 REMEMBER LAB BEST PRACTICES

Ensure that you follow standard best practices in the lab

- keep equipment clean
- observe aseptic procedures
- work on cell lines separately to prevent cross-contamination.



6 PROVIDE PERFECT CULTURE CONDITIONS

Every cell line is different and each needs a specific set of culture conditions to give it the best chance of success.

7 ENABLE ADEQUATE CELL MOBILITY

Some cells require the ability to migrate or propagate suspended in solution - ensure the most relevant environment.



8 USE AN EFFECTIVE SUBSTRATE

Find an accommodating, biocompatible substrat that can cater for a specific cell line's individual needs.