

The Horrid History of Cell Culture and its future

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The history of cell culture is a fascinating mix of black art and serendipity that has evolved over several decades into a precise science and indispensable tool. Yet this evolution is not without problems and controversies that remain alarmingly prevalent to this day, impacting scientific research in terms of reproducibility. Despite the actions of whistleblowers, who were ignored or even fired while other scientists whose integrity may be questioned had success, the use of misidentified, cross-contaminated cell lines spread out.

60 years following the isolation of the first human cell line, the ATCC Standards Development Organization released in 2010 the consensus standard for researchers to guarantee cell lines identity used in scientific studies, but the bad practice of using unauthenticated, over-passaged or cross-contaminated cell lines is still a long way from disappearing.

Fortunately, more and more high impact factor reviews now require the authentication of the cell lines used in studies prior to publishing, for the sake of integrity and reproducibility in Science.

Automation of chromatography liquid with AKTA™ pure

Jean-Philippe BOURSIER, Chromatography specialist

GE Healthcare Life Sciences

Liquid chromatography is the major technique used for proteins and biomolecules purification. This approach is always difficult to follow and time consuming. GE Healthcare Life Sciences has designed a new type of system, easier to use, with a high level of automation allowing more experiments with less time spent in front the system.

AKTA™ pure is a flexible and intuitive chromatography system for fast purification of proteins, peptides, and nucleic acids from microgram levels to tens of grams of target product. AKTA™ pure is a reliable system where hardware and UNICORN™ software are designed to work together with columns and chromatography media to meet any purification challenge. The system has been developed with 14 different valves type offering a huge capacity of different type of automation. The loop valve is one of the most important options for creating new automation approach. The loop valve support 5 loops for 5 automatic samples injections, for analytical or preparative approach, with a high degree of security. The scientist can run several injections automatically night and day, without any risk of cross-contamination.

IREPA LASER

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