



PRESS RELEASE | PORCHEVILLE, FRANCE – FEBRUARY 29, 2024

GENEVOLUTION launched a new miniaturized Cell Transformation Assay with fluorescent labelling as a reliable alternative method to identify non-genotoxic carcinogen substances in Food Contact Material extract

The Cell Transformation Assays (CTAs) aim to predict the carcinogenic potential of chemicals. The method is designed to evaluate the effects of chemicals on the growth of specific cell types and their potential progression through a transformation process from being normal cells to fully malignant cells. The method is using Bhas 42 cells, a 3T3 mouse fibroblast cell line transfected with several copies of the Ras gene allowing a cell transformation process described by the formation of foci characterized by deep basophilic staining, spindle-shaped cells, multilayer growth, random cell orientation and invasive cell growth into the background monolayer.

Non-intentionally added substances (NIAS) are chemical compounds that are present in food contact materials (FCMs) and could therefore migrate into food, but they are not added for a technical reason during the production process.

The innovation of GenEvolution relies in:

- The miniaturization of the test using 96-well plates to identify genotoxic and non-genotoxic carcinogens using fewer cells, less medium and, most importantly, less test material.
- The fluorescent labeling with BMVC on Bhas 42 cells to perform more accurate, sensitive, and robust quantification
- The transcriptome analysis to identify the impacted cell cycle steps, such as immune response, cell adhesion, apoptosis and cell proliferation.

“Non-intentionally added substances (NIAS) are chemical compounds that are present in food contact materials (FCMs) and could therefore migrate into food with a major safety concern for human health. This innovation is an important step for GenEvolutionN to become an internationally recognized Contract Research Organization dedicated to in-vitro genotoxicity aiming at predicted risk of cancer”, says Isabelle Mouche, co-founder and CEO of GenEvolutionN.

For more information about our DPRA test and how it can transform your product safety evaluation process, please contact Isabelle Mouche at isabelle.mouche@genevolution.fr or visit our website at www.genevolution.fr.

About GENEVOLUTION:

GenEvolutionN is an expert CRO dedicated to In-Vitro Genetic toxicology and toxicology expertise using new Human cell models combined to advanced analytical technologies to anticipate tomorrow challenges and predict the risk of cancer. Hosted within the Seqens’Lab, GenEvolutionN offers a broad portfolio of GLP compliance in-vitro toxicity and genotoxicity test for the pharmaceutical, cosmetic, medical device and food industry. The mission of GenEvolutionN is to contribute to a safer world by providing our customers with innovative and high-quality laboratory, research and advisory services whilst creating opportunities for our employees and generating sustainable value to further enhanced innovation. Driven by an entrepreneurial and innovative spirit, our employees are committed to providing our customers with the highest level of service and quality.

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