δypha

ABOUT THE δYPHA PROJECT

The goal of δypha is to improve cell culture and drug testing with automated and continuous fluidic control in standard cell culture plates.

The international consortium has received a European Innovation Council Transition grant of 2.5 million euros for bringing Sync Biosystems' technology from pilot to product.

Industrial and research leaders, integral members of the consortium, participate as end users: Charles River Laboratories, Princess Máxima Center for Pediatric Oncology and Bambino Gesù Children's Hospital. With dedicated showcases, they will demonstrate how the technology impacts their drug development assays and their search for better therapies for patients.

To translate the results from the in vitro technology to patient-relevant levels, consortium partner ESQlabs will develop specific physiologically-based computational models.

OUR SOLUTION

Sync Biosystems solves this problem by connecting cell culture devices to their fluidic control system. The technology is based on a specifically designed adapter, connecting standard cell culture devices to the automated fluidic control system, thereby allowing the supply of user-defined drug concentrations at any given point in time.

This gives cell culture biologists the ability to control how the medium or drug concentrations change over time, without changing their regular workflow. Based on clinical data we know that the order and timing of supplying different drug combinations can have a huge effect on the ability to kill tumor cells. With the δypha technology we can now test different drug combinations in an informed and automated manner.

PROJECT PARTNERS

esqLABS
WE EMPOWER HEALTH CARE

DEMCON

SYNC BIOSYSTEMS
Part of the Demcon group

Princess máxima center
pediatric oncology

charles river

Bambino Gesù
OSPEDALE PEDIATRICO

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