



## **HCS Pharma expects 90% success rate on Cancer drugs tests due to recreation of organs in-vitro with BIOMIMESYS® technology**

**Results of new technique are a boost to Cancer research and a huge progress leap in comparison to current 2D technologies that generate 90% failures**

**Paris, 8 March 2022** - Cancer is the second cause of death in the world and has been steadily increasing for the last fifteen years according to the Foundation for Medical Research. HCS Pharma, a promising French start-up, is developing in-vitro organs through its BIOMIMESYS® technology, an innovation that is already benefiting cancer treatment research.

### **Creating in-vitro organs for drugs trials**

To better understand the evolution of cancer cells and to test drugs, clinicians need samples of healthy or diseased organs. The HCS Pharma teams have developed an approach that enables the reconstitution of a healthy or diseased organ in the laboratory.

BIOMIMESYS® is the only system currently capable of reproducing artificial organs or tissues grown in the laboratory from a small quantity of human or animal cells. In concrete terms, it works as follows:

An organ in a human body consists of cells that are attached to a solid scaffold and bathe in a viscous hydrogel environment. BIOMIMESYS® technology, also known as Hydroscaffold(™), combines the reproduction of a solid scaffold to which cells can attach using adhesion proteins and a hydrogel-like environment. Organs or tissues are then created by populating the cells in this Hydroscaffold(™).

This revolutionary technology therefore allows in vitro tests to be carried out in conditions close to those of the human body's organs. In vitro tests are a critical step in the development of new drugs. They enable the efficacy of a molecule to be validated and its non-toxicity to be tested as close as possible to biological reality.

### **Extremely promising results**

Initial results achieved alone or in partnership with several cancer research institutes (CNRS, INSERM within the ONCOLille Institute) show that it is possible to stop the proliferation of cancer cells and therefore the progression of the tumor by targeting the cells that generate this stress.

Recognised as a "Deep Tech Pioneer" by the Hello Tomorrow challenge in 2020, HCS Pharma was awarded by the prestigious NHRI (National Health Research Institute) of Taiwan during BIO ASIA Taiwan 2021.

BIOMIMESYS® is the result of more than 20 years of academic research and industrial development by a team of 5 researchers led by Nathalie Maubon, President and Scientific Director of HCS Pharma, 22 years of experience in biotechnology alongside Zied Souguir, PhD, Senior Researcher in Biomaterials and inventor of this technology in its current form / CIO and Elodie Vandenhoute, PhD / COO, Project Director in Biology.

### **About HCS Pharma**

HCS Pharma is a biotechnology company that develops and distributes products for growing human or animal cells in an artificially created organ-like environment. Its technology is based on a 3D cell culture system that best replicates the biological environment and enables better results for research and biological testing. HCS Pharma's flagship product is BIOMIMESYS® Hydro scaffold (™) which is offered to its customers from various industries such as pharmaceutical, dermo-cosmetic and food industries.

To learn more: <https://invest.hcs-pharma.com/>

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