

IN VITRO **toxicity** TESTING

Hepatotoxicity - Neurotoxicity - Cardiotoxicity

HEPATOTOXICITY TESTING

Hepatotoxicity is the leading cause of drug withdrawals in late-stage drug development (about approximately 30% of all drug withdrawals).

In order to avoid the potential hepatotoxic effects of lead compounds, Celther Polska developed a fast and accurate hepatotoxicity tests using induced hepatocytes, derived from iPS cells. This highly relevant model is optimized for high-throughput screening.

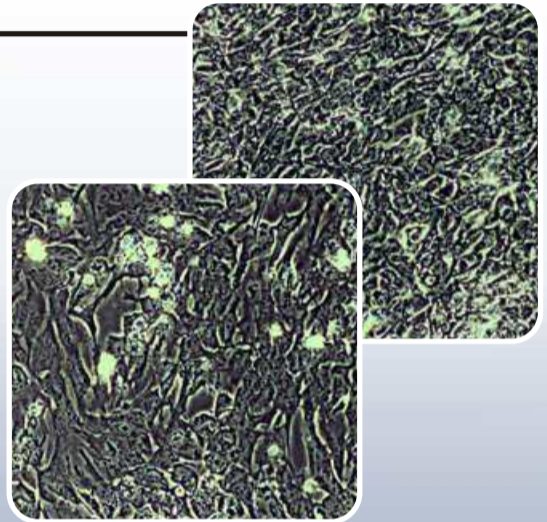
NEUROTOXICITY TESTING

Neuronal tissue is composed of highly sensitive cells that can be easily damaged by cytotoxic agents. It is therefore vital that all drug candidates are tested for neurotoxicity.

To enable testing of compounds with potential therapeutic activity, Celther Polska has developed neurotoxicity tests based on induced neural stem cells, derived from iPS cells. Such tests can be streamlined and carried out in a high-throughput fashion, therefore eliminating the toxic compounds at the early stages of drug development.

CARDIOTOXICITY TESTING

Celther Polska has started to offer in vitro cardiotoxicity testing based on induced human cardiomyocytes derived from iPS cells. These cells are specifically designed to support drug discovery and improve the predictability of drug efficacy and toxicity screens, weeding out ineffective and potentially toxic compounds at early stage of drug development before significant time and resources have been invested.



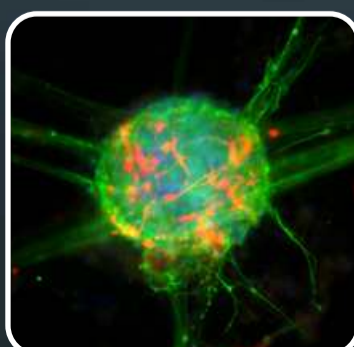
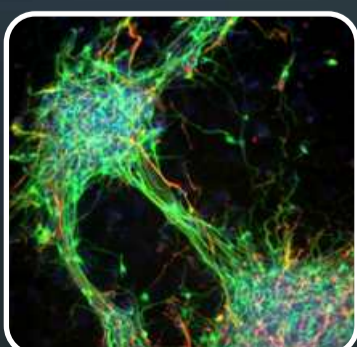
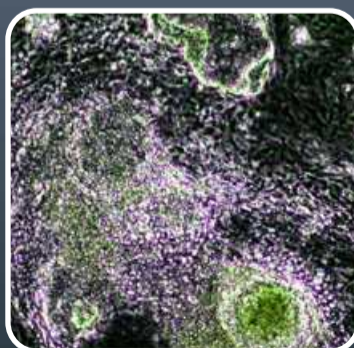
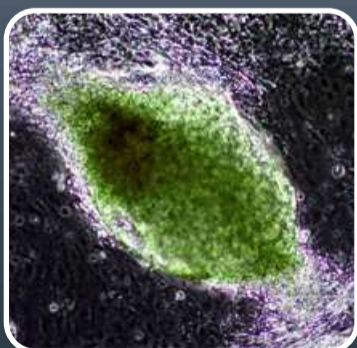
ADVANTAGES OF *IN VITRO* TOXICITY TESTING:

- Provides useful information to clarify toxicity generation and its mechanism
- High throughput allows for direct comparison of multiple compounds tested under the same conditions
- Allows for potential optimization of the concentration ranges in regard to the toxic doses
- Effects of tested compounds on proliferation or survival rates can be tested, along with their kinetics
- Time saving: eliminates toxicological compounds in the early phase of drug discovery process

EXEMPLARY TOXICOLOGY TESTS:

- Apoptosis and necrosis
- Senescence
- Cytostatic effect
- Influence on differentiation
- Cell observation in real-time

In case you are interested in other tests not mentioned above, please contact our sales department by e-mail: edyta.wodzinska@celther.com



CONTACT

**Celther Polska Sales
Department:**

+48 42 681 25 25

edyta.wodzinska@celther.com

www.celther.com