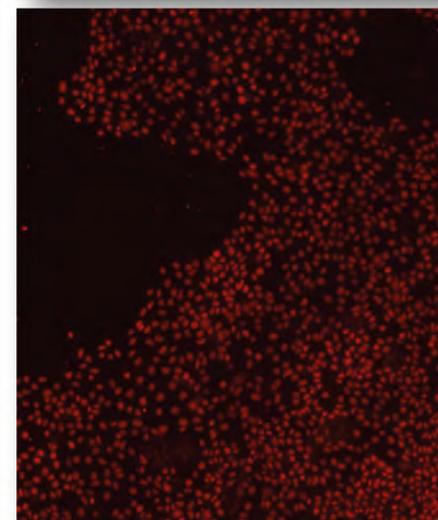
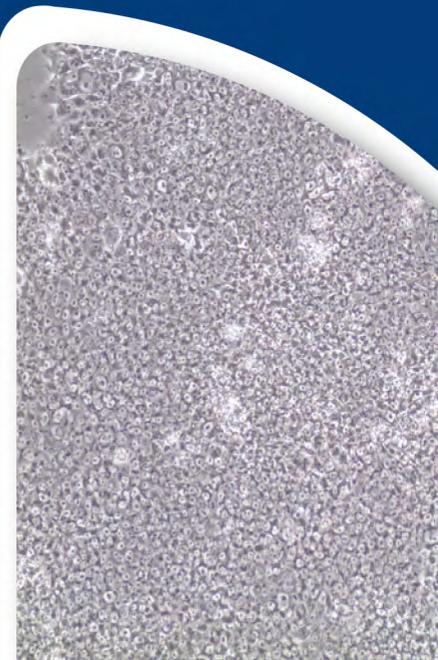




Products & Services

Human stem cells-based products for disease modeling & drug discovery



Human pluripotent stem cell-based research tools for better medicines

Background:

The advent of cell reprogramming and induced pluripotent stem cells (iPSC) provides unique opportunities for deriving disease- and patient-specific cell types for all somatic tissues, which then serve as human in vitro models for studying the cellular and molecular phenotype of the disease. At the same time, these disease models represent drug discovery tools enabling compound screening, validation and toxicity testing in an authentic human cell- and disease-specific background.

Custom iPSC Services for Neurological Disease Modelling and Drug Screening:

Custom Cell Culture

Based on a range of established differentiation protocols we offer custom generation and manufacturing of functional iPSC-derived neural cell types. We provide and develop cryopreservation stages for various iPSC-derived neuronal subtypes to underpin your assay development and screening programs.

- Variety of disease-specific neuronal subtypes
- Astroglial lineages
- It-NES[®] (neural stem cells)
- It-NES[®] Neurons



Product Description

It-NES[®] Neurons are derived from human induced pluripotent stem cells from healthy and diseased donors [1,2]. They originate from a homogenous and pure population of long-term self-renewing rosette-type neural stem cells (It-NES[®]), a highly standardized and well characterized population. The use of It-NES[®] and the derived Neurons in industrial and biomedical applications has been documented in several publications, including modeling of disease-specific neurodegeneration [3,4,5,6] drug screening [7], and transplantation studies in rodent stroke [8] and spinal cord injury [9] models.

Phenotyping & Assay Development

For iPSC-based assay development existing off-the-shelf solutions are often not available. We offers custom development services for your (phenotypic) bioassays, process development or basic research. Our team of molecular and cellular biologists will work with you to deliver a tailor made cellular solution for your needs in neurological disease modeling and drug screening programs.

StemCell Consulting

Process development
Automated cell culture solutions

Stem Cell Consulting:

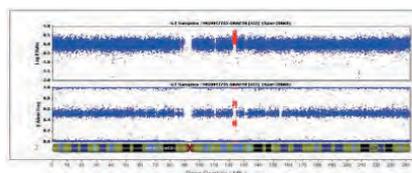
The highly science- and technology-driven iPSC-based biomedical industry needs help to integrate scientific information into their concepts and actions. Our mission is to create risk and benefit awareness to strike a balance between precaution and innovation in iPSC-based process development. Complemented by more than 10 years experience in automated cell culture process development we can provide tools and processes to turn innovation into products and processes.

Genomic Quality Control Service:

We offer genomic quality control of your stem cell lines encompassing chromosomal integrity and differentiation staging as an important step to the success of your research. Benefit from the experience of one of the leading European service provider for microarray analysis using Illumina and Affimetrix.

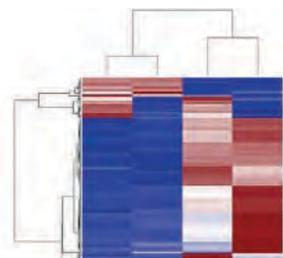
Molecular karyotyping

- Screening for chromosomal abnormalities down to 50kb
- High sensitivity (15-20%) for mosaic detection
- Only 200ng of gDNA required
- Genetic fingerprinting to evaluate sample origin
- Pathogenetic prediction possible



Differentiation staging

- Whole transcriptome profiling using Illumina or Affimetrix microarray
- Analysis of 27,000 RefSeq genes
- Only 500ng of total RNA required as starting material
- Bioinformatic service
- Pathogenetic prediction possible



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Customer Information

If you are interested in accessing life&brain's products and services please contact us: cellsolutions@lifeandbrain.com

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