

## Press Release

# Ready-to-use, synthetic surface cultureware for human induced pluripotent stem cells (hiPSCs) coming to market

Hamburg, April 2018

The major aim during the multi-passage cultivation of pluripotent stem cells (PSCs) is to preserve their differentiation and growth potential. Here, the proper selection of a defined culture system that consists of a growth surface and culture medium is crucial. The commonly used biological coating materials for PSC expansion are based on either mouse embryonic fibroblast feeder layers or animal-derived protein mixtures. However, these coating materials represent complex and non-defined growth surfaces that frequently lead to an insufficient experimental reproducibility. This disadvantage is exacerbated by variable lot-to-lot quality and purity of coating media, by use of undefined growth factors and extracellular matrix (ECM) components known to sustain cell adhesion and pluripotency, as well as by a potential pathogen contamination risk during preparation and storage. Therefore, to ensure robust cell performances in downstream applications, fully synthetic, animal-component-free culture systems have always been of great interest in this context.

In contrast to other types of stem cells, synthetic and ready-to-use culture systems are currently not available for human induced PSCs (hiPSCs). In June 2018, Eppendorf will bring a novel, synthetic and ready-to-use surface for hiPSCs, hMSCs and other ECM-dependent cells to the market. This surface is made up of fibronectin-derived motifs to support cell attachment by mimicking native ECM proteins. Furthermore, it allows expansion of stem cells in xeno-free and restrictive culture conditions, aiming to provide a completely defined culture system for PSCs without animal or human components. According to the manufacturer, this novel surface supports consistent and robust growth rate of hiPSCs with all pluripotent-specific characteristics over at least 20 passages.

Eppendorf CCCadvanced™ FN 1 motifs cell culture plates and flasks will be introduced to the scientific community at the ISCT conference in Montreal. Additional information on detailed expansion analysis is available at

<http://www.eppendorf.com/appnote389> and  
<http://www.eppendorf.com/appnote390>

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**About Eppendorf AG:**

Eppendorf is a leading life science company that develops and sells instruments, consumables, and services for liquid handling, sample handling, and cell handling in laboratories worldwide. Its product range includes pipettes and automated pipetting systems, dispensers, centrifuges, mixers, spectrometers, and DNA amplification equipment as well as ultra-low temperature freezers, fermentors, bioreactors, CO<sub>2</sub> incubators, shakers, and cell manipulation systems. Consumables such as pipette tips, test tubes, microliter plates, and single-use bioreactor vessels complement the range of highest-quality premium products.

Eppendorf products are most broadly used in academic and commercial research laboratories, e.g., in companies from the pharmaceutical and biotechnological as well as the chemical and food industries. They are also aimed at clinical and environmental analysis laboratories, forensics, and at industrial laboratories performing process analysis, production, and quality assurance.

Eppendorf was founded in Hamburg, Germany in 1945 and has more than 3,000 employees worldwide. The company has subsidiaries in 26 countries and is represented in all other markets by distributors.

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