



## CREATING LIFE WITH Nano-FiberDISK

Innovation in the field of **3D Cell Culture** provides nanofibers structure with free-standing

### ST1 CO., LTD.

Develops and manufactures novel type of fibrous scaffolds for 3D cell culture, based on advanced technology in electrospinning and 3D bioprinting.

We extend business field to biomaterials, medical devices, tissue engineering, etc.

#### Registered in U.S. and EU Patents:

- US: 10,420,861 B2 / EU: 3162387
- Nanofiber mat with printed polymeric frame, manufacturing method, and its application to cell culture and nanofibrous membrane for guided bone regeneration



ST1's innovative 3D bioprinting technique solves the problem of conventional nanofibers and enhances mobility of the nanofibers. Users can select the thickness, the orientation of nanofibers and frame pattern on the surface of nanofibers according to the intended use.

The **free-standing 3D structure** allows the shape to be maintained during cell cultivation, and this improves the handling convenience. Moreover, this **Nano-FiberDISK** mimics human extracellular matrix (ECM). In additions, **Nano-FiberDISK** can be used with standard container such as 24, 48 or 96 well-plate.

You can choose thickness, frame pattern depending on experimental condition. You can also select orientation of fibers depending on the cell; for Unalign - isotropic morphological cell (matrix cell, cancer cell etc.) or for Align - anisotropic morphological cells (muscles cell, nerves cell etc.). Furthermore, our fiber materials are biocompatible, biodegradable-PCL(Polycaprolactone) nanofiber and frame.

The 3D Cell Culture technology of the new generation of ST1 allows maximizing the quality of consistency -batch to batch consistency- due to its uniform thickness and controlling of diameter.

#### Field of Study and Utilization

- 3D cell cultures and experiments using various normal/diseased/ stem cells.
- Tissue engineering and cell therapy
- Various bio-chips (multi functions besides porous thin film)
- Hydrogel or hydrogel-cell support
- Various cell cultivations support, also membrane

#### Creating Life for Next Generation!

The team of ST1 look forward to seeing you at [Stand 948](#)

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**Keywords** 3D cell culture, Nanofiber, Electrospinning, 3D printing, Tissue engineering, Tissue regeneration