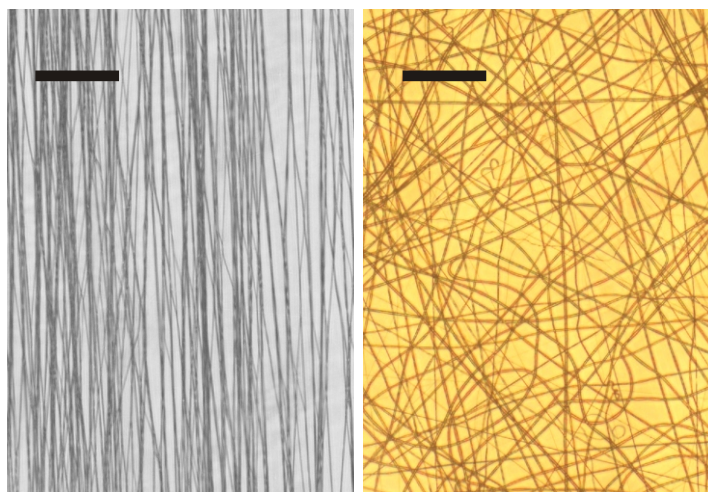


Celartia and Nanofiber Solutions start a collaboration for the development of high efficiency 3-D cultures, for Research and drug discovery uses.

Nanofiber Solutions develops and markets patented electrospun fiber multiwell plate technologies for cell culture providing three-dimensional (3-D) networks. These 3-D substrates better mimic tissue *in vivo* environments and thus facilitate faster screening and more effective cell research. As a result, researchers are able to more accurately study the effects of various chemical compounds on cell behavior. This is especially true as researchers attempt to model and measure cell migration (i.e., metastasis) from the primary tumor, by measuring cell migration and growth in a much more realistic environment.

Nanofiber Solutions has developed a product, referred to as the Interactive MicroEnvironMent System (IMEMS), capturing aspects of the physical and chemical characteristics of the tissue microenvironment to allow researchers to test the effects of neighboring cell populations. Cells cultured in the IMEMS have genes that can be up-regulated by as much as 340-fold in the presence of neighboring cells.

Celartia will develop, in cooperation with Nanofiber Solutions, advanced products where 3-D environment will be included in Petaka, where pH is auto-controlled (no external supply of CO₂ is needed) and dehydration is negligible for days, therefore the cultures could be developed in environments where hyperoxia, hypoxia, hypothermia, hypothermia is achievable under strict control. In these Petakas microgravity, vacuum conditions and hyperbaric conditions can be also studied.



Nanofiber Solutions technologies products. Left. Aligned nanofibers 3-D structure inside Petakas. Right. Random oriented nanofibers providing a 3-D network inside Petaka.

Bar = 10 micrometers