

3D Oriented Collagen Gels - Unlimited Potential and Field of Application

Collagen gels have been produced as cell culture substrate for over fifty years. However, they are unoriented unlike the native collagen in the human body. A common method in literature for creating oriented collagen gels is the use of a high strength magnetic field to induce the orientation of the collagen fibers during fibrillogenesis. This method requires the use of a strong magnetic field, 0.5-5 Tesla depending on gel dimensions, making it impractical for commercial production.

From 2008, ATREE Inc. started a sponsored research on preparing oriented collagen gels with Stanford University and ATREE Inc. has established a process which is flexible to design and produce any size and any direction of orientation for collagen scaffolds used as 3D environments in tissue engineering.

The ultimate advantage of using oriented collagen gels is that cells can be cultured in an environment similar to that of human body and that the cell growth is realized along the direction of the orientation.

We strongly believe that our 3D oriented collagen gels will be useful biomaterials for regenerative medicine and tissue engineering.

Taro Saku, CEO

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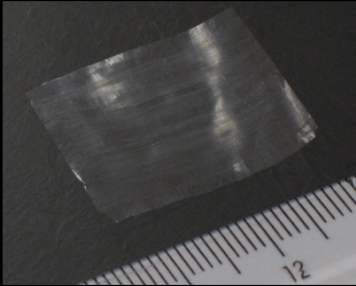
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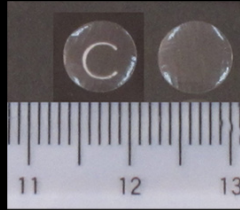
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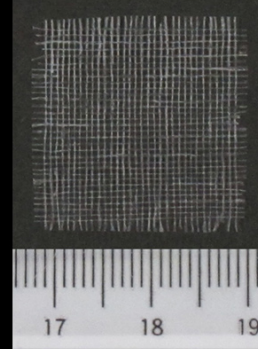
● **Oriented collagen sheet**



● **Oriented Collagen Domes**



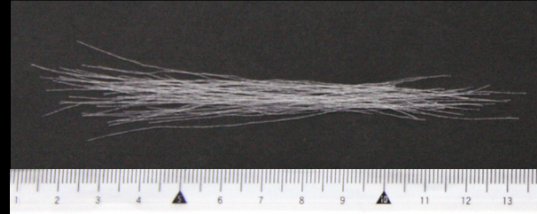
● **Oriented Collagen Mesh**



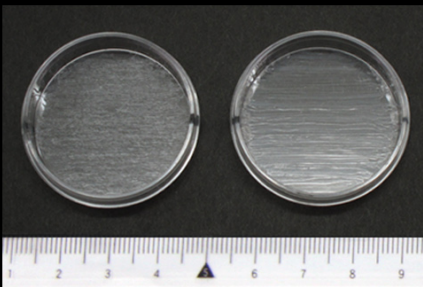
● **Oriented Collagen Tubes**



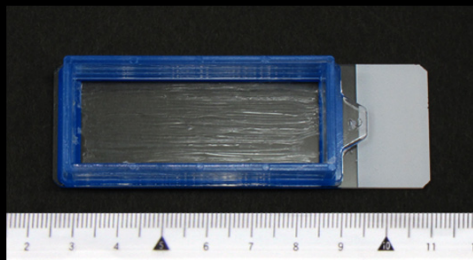
● **Oriented Collagen Strings**



● **Oriented Collagen Coated Dishes**



● **Oriented Collagen coated CultureSlide®**



Atree Inc. Three Dimensional Oriented Collagen Gels / Unlimited Potential & Area of Application

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