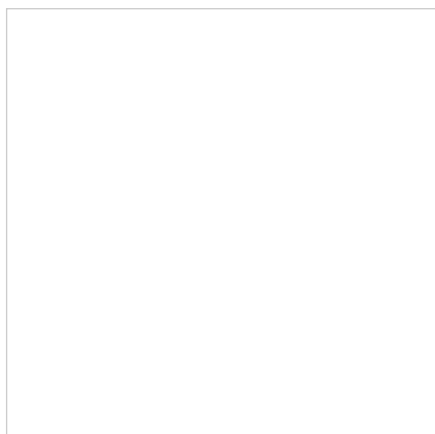
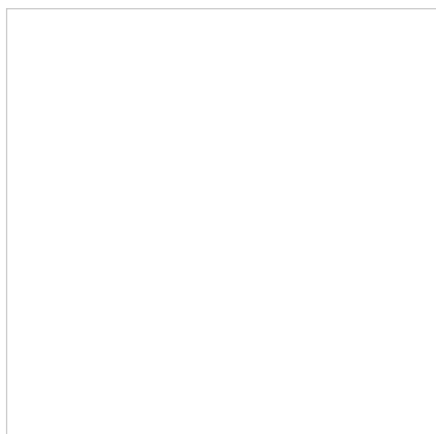


Life Sciences

# Possibilities Made Real

Organogenesis inc.  
LIVING TECHNOLOGY





## The Challenge

Organogenesis, Inc., a world leader in regenerative medicine, was looking for a technology that would enable the effective growth and delivery of living tissue on demand to medical practitioners and their patients around the world. Specifically, the company was looking for an efficient way to grow Apligraf®, a living cell-based therapy system. Apligraf is designed to kick start the healing process in patients with chronic wounds – wounds which fail to heal by the body’s own efforts. Apligraf provides the cells and proteins needed to effectively accelerate healing and achieve healing in wounds formerly unresponsive to traditional treatments like diabetic foot and venous leg ulcers.

To effectively grow Apligraf, Organogenesis needed to find a cell-culture surface technology that would grow the tissue quickly and with a large enough surface area to meet doctors’ and patients’ needs.

## The Breakthrough

Knowing of its history and expertise in the life-sciences industry, Organogenesis turned to Corning for a solution to its cell-culture challenge. Corning closely collaborated with Organogenesis to address its unique needs, leading to the development of the 75mm Corning Transwell® cell-culture insert, which would enable the growth of Apligraf.

Corning’s Transwell insert is designed to produce a cell-culture environment that closely resembles that of the human body. By providing a unique permeable membrane, cells are able to carry out metabolic activities in a more natural fashion, differentiating into tissue as they would naturally within the body. The 75mm version of Corning’s Transwell insert, the largest in the industry, also allowed Organogenesis to grow tissue in sizes needed to help patients with larger skin wounds.

## The Impact

Regenerative medicine is vital in restoring and repairing tissue in patients with a variety of different ailments. In the U.S. alone, roughly three million patients, young and old, suffer from chronic wounds, which represents a cost of more than \$10 billion to the healthcare system each year.

Utilizing Corning’s Transwell technology, Organogenesis was able to effectively develop Apligraf, position it as the first bio-engineered cell-based therapy for the treatment of chronic wounds, and receive approval from the U.S. Federal Drug Administration. With the ability to quickly and efficiently grow Apligraf tissue in larger sizes, Organogenesis is able to help patients with chronic wounds heal faster and with more certainty. Organogenesis is now able to help patients with chronic wounds heal more successfully, improving their quality of life.

Since its development, Apligraf, made possible by Corning’s Transwell technology, has been used on many thousands of chronic wound patients. Organogenesis continues to look for additional applications for the technology, including the treatment of burns and rare genetic and skin diseases.

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