

Viscofan BioEngineering opens production plant for industrial-scale manufacturing of medical grade collagen

Biotech unit of Naturin Viscofan expands medical technology business

Weinheim, May 31, 2017 – Yesterday, Viscofan BioEngineering, the business unit for biomedical research and development of Naturin Viscofan GmbH has celebrated the inauguration of a production plant for medical collagen products, thereby laying the foundation for the expansion of its activities in medical engineering.

From sausage casings to medical products

Naturin Viscofan is a well-established company that has been producing sausage casings for more than 80 years. The experience and expertise in processing collagen from bovine skin that has been gathered in these decades is now utilized by Viscofan BioEngineering to produce advanced products for cell biological research and regenerative medicine. The product portfolio is based on ultra-pure, native collagen type-I fibers that are offered as membranes of various sizes, forms and thicknesses or as viscous mass. Collagen fibrils are an essential part of the extracellular matrix where they support cell adhesion, growth and differentiation, thereby enabling the development of tissues and organs.

Collagen biomatrices enable novel therapies

Dr. Lluís Quintana, Corporate Manager of Viscofan BioEngineering explains the advantages of the company's collagen scaffolds for the medical market: "The used native collagen is biodegradable, not chemically cross-linked and especially well tolerated. Our membranes are a highly useful tool for surgeries in several ways: They serve as a mobile carrier that delivers and fixes cultured therapeutic cells to a patient's impaired organ and provide a natural environment to maximize cell survival and functionality. Together with their mechanical properties – thin, elastic and yet strong – they represent a unique combination, ideal for surgeries. We are convinced that these versatile novel collagen products can actively contribute to medical progress."

In collaboration with Viscofan BioEngineering the University of Navarra (Spain) is developing a therapeutic collagen membrane in combination with stem cells as an Advanced Therapy Medicinal Product (ATMP) for the treatment of patients with cardiac insufficiency. In preclinical experiments, the stem cell-loaded membrane could improve heart function and blood transport. A clinical phase-I study that will test efficacy and tolerability of the collagen-based implant in patients with cardiomyopathy is in planning and will be funded with 1.26 Million Euro by the Spanish government.

The University of Tübingen has successfully completed preclinical studies with collagenous cell scaffolds for the treatment of urethral stricture, a clinical study is also in preparation.

Together with industrial partners, Viscofan BioEngineering is furthermore pursuing the development of a stable collagen net for hernia surgery and the development of a special membrane for dentistry. The viscous collagen mass that is also produced in the new production plant is suitable for biocompatible coating of medical devices or implants. Viscofan BioEngineering is keen on establishing further collaborations with academic, clinical and industrial partners to develop innovative medical products and therapies.

Custom-fit production plant with proprietary technology

For the manufacturing of medical collagen on an industrial scale, Naturin Viscofan has built a unique production plant. Individual steps of the work-flow such as delivery, raw material processing, collagen mass production, extrusion and packing were copied from the food production process and transferred to the much smaller scale of medical technology manufacturing. This down-scaling required not only the construction of custom-fit machines and infrastructures but also the installation of a separate IT system. Furthermore, all processes had to be standardized and optimized to comply with the challenging regulations of Good Manufacturing Practice (GMP) that ensure a premium medical grade product quality.

José Antonio Canales, CEO of the parent company and global leader Viscofan performed the official inauguration of the GMP-plant on May 30: "We are convinced that our innovative collagen products will be successful in medical research and development and are looking forward to grow into the medical technology market." Bertram Trauth, general manager of Naturin Viscofan is convinced: „Our strong engagement and our special expertise as collagen competence center is now paying off. We have created a state-of-the-art production plant for medical products here in Weinheim that provides us with access to a new business area."

About Viscofan BioEngineering

Viscofan BioEngineering is the biotech business unit of Naturin Viscofan GmbH – a company of the Viscofan group. We apply partly proprietary technologies and standardized extraction methods to process collagen from bovine skin for the development and industrial-scale production of novel collagen biomatrices in research, medical and food grade. The combination of premium products with an exceptional scientific support positions Viscofan BioEngineering at the forefront of regenerative medicine. The comprehensive portfolio is based on collagen membranes, suspension, solutions and hydrolysate to serve cell biology, biomedical and health food markets. The products are suitable for a broad range of novel applications, such as innovative tissue engineering, new surgical procedures, advanced medical devices or improved nutraceuticals. Together with its partners, Viscofan BioEngineering is also developing its own pipeline of products for regenerative medicine.

CONTACT

Dr. Lluís Quintana

Corporate Manager

Viscofan BioEngineering

Tel.: +49 (0)6201 / 86-236

E-Mail: quintana@bio.viscofan.com

www.viscofan-bioengineering.com

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Packaging of collagen membrane in the clean room

Elastic collagen membrane for implantations

Collagen membrane for dentistry

Drying tunnel of the new production facility for the manufacturing of medical grade collagen

Fibrous collagen mass for coating of implants and medical devices

Opening of the new production facility on May 30.
From left to right: Dr. Lluís Quintana, Corporate Manager Viscofan BioEngineering, José Antonio Canales, CEO Viscofan S.A., Bertram Trauth, Managing Director of Naturin Viscofan GmbH

Collagen matrices for 2- and 3-dimensional cell culture