ASTERION
Global Alliance

GENETIC ENGINEERING IN DERMATOLOGY

Building a new skin under the perspective of dermal science
and revolutionary technology

INVESTOR INTRODUCTION
EDITION 2017

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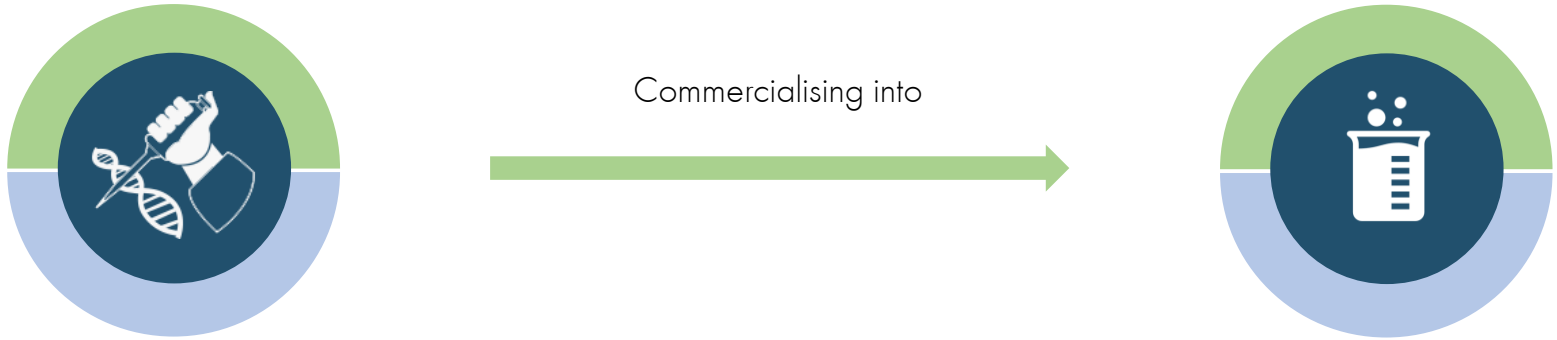
INTRODUCTION

Asterion Global Alliance is a Barcelona based biotech startup, focused on genomic engineering, DNA sequencing and the development of human recombinant proteins with a complex 3D structure. the company is currently one of the few companies to combine epigenetics, proteomics and transient gene expression technology to turn plants into bio-factories. After 5 years of rigorous R&D in designing its platform, the company now develops growth factors, precursor proteins, and peptides to be used for dermatological applications.



Human recombinant proteins expressed in plants

Highly specific anti-aging skincare

TECHNOLOGY STEP 1 & 2

EXPRESSION VECTOR CONSTRUCT

Proteins or (poly)peptides cannot be developed through chemical synthesis, but need a living cell to occur. The synthetic human gene of interest of the protein we wish to obtain, is cloned into a plant-based expression vector.

VACUUM AGROINFILTRATION

The leaves of the plants are mechanically vacuum infiltrated with the plant-based expression vector, containing the gene of interest, which accumulates in the leaves. The DNA transcript is amplified and translated within the leaves of the plant for 7 days.

TECHNOLOGY STEP 3 & 4

HARVESTING, PROCESSING & FILTRATION

After 7 days the leaves are harvested and processed, obtaining a biomass that contains the protein of interest. The biomass is membrane filtered so that the cell debris can be removed and the protein remains in the supernatant.

PURIFICATION, ANALYSIS & LYOPHILIZATION

The protein is purified by sequencial chromatography (Affinity and Anionic exchange FPLC), serological activity assays are performed and purity is determined by SDS-PAGE. The final protein is Lyophilized (freeze dried) for long term stabilization.

DEVELOPMENT OF TROPOELASTIN

Tropoelastin (ELN) is the fundamental building block for elastin formation

There is only one ELN gene available in the human genome

ELN expression is substantially turned down during the aging process

In negotiation with a forbes 500 company for B2B sales of raw material

Tropoelastin will be commercialized as TROPO-E under the companies' brand label: MITOSIS

LAUNCH OF TROPO-E

Our multi-approach to counterattack premature aging

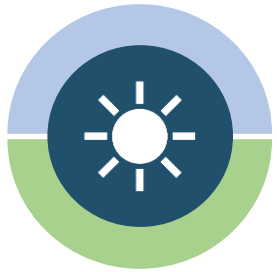
PREMATURE AGING

TROPO-E will be sold under our label MITOSIS as an intensive treatment to combat the 4 major predispositions when it comes to premature aging. The formula itself mimicks the skin's natural defense system and triggers cell-to-cell communication to activate the synthesis of the main Extra Cellular Matrix proteins of the skin: Elastin, Collagen and Hyaluronic Acid.

Having said so, our formulations are based upon reducing the chemical load of the skin and work with as little as 15 ingredients. All of our key active ingredients are bench mark molecules with an extensive background in dermal research and have proven their proof of efficacy. This way, our brand will be disruptive towards many skincare brands that still hold on to the "everything but the kitchen sink approach" of formulating.

Protein Breakdown

Free radical damage



Sun damage & hyperpigmentation

Inflammation & glycation

TROPO-E is formulated without any potentially harmful ingredients such as PEG's, silicones, DEA, Phtalates, synthetic fragrance, parabens, synthetic fillers, etc.

SALES REGIONS

In the 1st phase 2017 - 2019

- Belgium | Netherlands | Luxemburg
- Germany | Austria | Switzerland
- France | Spain | Italy | Portugal

2nd phase 2019 – 2021: UK – Scandinavia – Eastern Europe

SHORT MARKET ANALYSIS

Market analysis of the cosmetics industry shows that it remained resilient even in difficult economic periods. The market knows an increasing demand, which has never been impacted by economic crisis, with consumers aspiring for better quality products and eager for new technology and ideas.

The skin care market is a supply-driven market fueled by innovation, consumers are always looking for quality, performance and perceived results. The dermocosmetics products that combine cosmetics and dermatological action to preserve the health and beauty of skin, grows at a steady rate of 5% a year. The dynamism stems from the strong consumer appeal of products combining efficacy and safety with excellent value.

From a geographical point of view, the market remains strong on all continents. Even Western Europe stays steady and still knows growth of nearly 3%. The new markets continue to attain increasing levels of growth. Mainly Asia-Pacific and Latin America are strong.

The Digital Media has emerged as a crucial dimension for the brands, with consumers constantly looking for tips and recommendations. The internet is increasingly integrated into the buying process with the rise of digital and social networks. The demand for high end cosmetics and skin care is rapidly growing and is more stable compared to other mass cosmetics. The demand for high end cosmetics is also caused by a growing awareness of consumers and demand for innovative products. Consumers are much more concerned about the ingredients and the effectiveness of the products.

Important to say that in the total cosmetics market, the skin care segment is the biggest part with almost 25% of the total turnover. Not only is skin care the biggest part but also knows the most rapid growth and it is anticipated to stay that way.

ADVANCING THE
SCIENCE OF LIFE