Aesthetic medicine is a continually developing field, with a number of companies offering novel approaches to treatment. Rosalind Hill speaks to Robert Daniels, CEO of Elastagen.

IN AN INDUSTRY AS FAST-PACED as aesthetic medicine and dermatology, perhaps it was only a matter of time until a product was developed to rival the botulinum toxins and hyaluronic acids. And after speaking to Robert Daniels, CEO of Elastagen, it would seem that the big breakthrough has finally come.

Elastagen is an Australian-based company pioneering technologies to repair and augment the skin using elastin. Elastin is an essential protein in human connective tissue that is responsible for the elasticity of the skin. It is able to stretch and recoil back to its original position, as seen, for example, in the lungs on inhalation and exhalation, or in the skin when making facial expressions.

The breakdown of the skin’s elastic fibres is a hallmark of ageing, and represents an obvious starting point for skin repair.

‘If we take a step back and consider why you would want an intervention for the skin with elastin-based products, then it quickly becomes clear,’ says Robert.

‘During foetal development and soon after birth, the majority of elastin that the body will have for a lifetime is produced, and after that the body has limited capacity to regenerate elastin following damage, this, coupled with people living for longer and sun damage, results in our skin losing its elasticity as we age.’

‘A cause of skin ageing is the degeneration of elastic fibres in the skin,’ continues Robert.

‘What we are trying to achieve in repairing aged or damaged skin is based on the premise that it is better to treat humans with products specifically designed for humans, in our case a synthetic human elastin. This is a different mindset to the use of other treatments (e.g. animal-based collagen, hyaluronic acid).

Research challenges
The development of Elastagen and its research into elastin-based products offers a novel approach for the future of aesthetic medicine. While the majority of people may conjure up images of over-treatment and the ‘frozen’ face when they think of aesthetic treatments, newer products take the industry and its patients to a much more natural end
point, with a growing understanding of biology, the skin, and knowing how to better heal our patients.

‘On the back of 20 years’ research by Professor Weiss’ Elastin Laboratory at the University of Sydney, we have been able to produce an elastin-based protein at a clinical grade and on a commercial scale,’ says Robert.

‘The next challenge was to formulate products to treat the indications we wanted; the obvious starting point was dermatology, a focus driven by clinicians and those who had watched the scientific development of the product.’

By applying the product—now named Elastatherapy—to the right areas of the skin, the team at Elastagen hope to repair damaged skin with functional elastic tissue. The Elastatherapy product range is comprised of tropoelastin, the building block of elastin, and has the potential to either bulk the skin or rejuvenate and restore elasticity to skin tissue to improve its suppleness.

‘It is a novel therapy in that the treatment is based entirely on synthetic human elastin, cross-linked with a minor hyaluronic acid component. There is no requirement for the toxic cross-linking agents often used in other products.’

The elastin treatment will also stimulate skin cells to grow and lead to the formation of new collagen at the treatment site.

In fact, you can address a number of ageing skin issues with just this one product, and at the same time improve the properties of the skin.

Continuing focus

Despite such a huge breakthrough for Elastagen and the development of Elastatherapy, Robert asserts that it is imperative for the company to remain focused.

For the past 3 years, Robert and his team at Elastagen have focused on their products and the positioning of the company. Now, as they complete their second and third clinical studies, the company hopes to achieve CE mark and introduce the Elastatherapy products to the European market in late 2012.

‘I think that Europe has a long history in the development of new products and treatments in the aesthetic market and the rest of the world has tended to follow,’ Robert explains.

‘Going forward, it’s important to look at different treatment approaches and measure outcomes to more accurately understand the benefits of elastin to the skin. The best way to maximise the potential of the elastin treatments is the next challenge we face.’

Conclusions

The future of aesthetic medicine is certainly exciting when one considers the development and introduction of innovative new products like Elastatherapy, but it is important to rise to the challenge and understand what patients and clinicians want. Robert thinks that this development of the market will continue to go further beyond hyaluronic acid-based products.

‘We’ve got to look beyond the obvious and understand where the market is heading, and what patients and doctors are really looking for in an aesthetic treatment. There are also huge differences in attitudes worldwide, and it’s important to understand and adapt to these different needs.’

Further information www.elastagen.com

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