



## Identifying the Source

The scientific community has open access to the human genome, but Nu Skin®'s breakthrough ageLOC™ science gives us the ability to interpret it in a meaningful way.

In a recent discovery, Nu Skin® along with anti-ageing and genetics experts identified key groups of genes called **Youth Gene Clusters**. Nu Skin® believes that finding and identifying these functional groups of genes is crucial to addressing ageing at its source.

Clinical study results, genomic analyses and substantiated research have led Nu Skin® scientists to identify genes that share characteristics associated with youthfulness.

The expression of these genes is responsible for the signs of ageing on our skin.

## The Science of ageLOC™

### Proprietary Science

Nu Skin® is taking the science of **anti-ageing** to the next level by studying the human genome. In collaboration with leading scientists, Nu Skin® identified what is called **age-related super markers** or **arSuperMarkers**. These arSuperMarkers (arNOX, genes and other skin markers) are the components of body chemistry that influence how we age. They are the **ultimate sources** of ageing and link some genes to skin health. Nu Skin®'s exclusive ageLOC™ science focuses specifically on targeting these sources.



## Reactivating the balance of youth

Once these key groups of genes have been identified, it is necessary to understand how their activity can reflect a more youthful skin profile. Reactivating this profile is a subtle balancing process, it is not as simple as turning them all on or off. Some skin markers may need to be turned down and others turned up. Nu Skin®'s proprietary ageLOC™ science creates new opportunities to support younger looking skin.

## Scientific Foundation

In anti-ageing science, the Nu Skin® team is leading the way. By modelling skin and human tissue in laboratory experiments, Nu Skin® has learned how crucial genes are to a youthful appearance. In fact, in order to retain a youthful appearance, we now understand how to regulate the production of arSuperMarkers, reflecting a visibly younger looking skin.

This revolutionary discovery is based on Nu Skin®'s exclusive collaborations with leading scientists around the globe, millions of dollars in development and years of combined anti-ageing and genetic research.

### LOOKING FORWARD

By creating an exclusive partnership with the founders of LifeGen Technologies, Dr. Richard Weindruch and Dr. Tomas Prolla, Nu Skin® has access to more than 30 years of research into the genetics basis of ageing. LifeGen Technologies' pioneering and ongoing research is expected to yield further important data to understand the ageing process and how to preserve youth. Indeed, their findings have been so groundbreaking that they are published in the most prestigious scientific journals in the world.

ageLOC™  
Science\*

## arSuperMarkers & the 8 signs of ageing

arSuperMarkers

8 Signs of Ageing

Skin Structure

Fine Lines & Wrinkles

Pigmentation

Skin Structure

Hydration

Discolouration

Cellular Turnover

Uneven Skin Tone

Radiance

Hydration

Pore Size

Texture, Smoothness

Dr. Joseph Chang

Chief Scientific Officer

EVP Product Development

\* This is only a selection of meaningful arSuperMarkers.

*"There is no doubt that in order to retain a youthful appearance, genes must maintain their youthful activity patterns. By analysing human tissue at the genetic level, we've learned the crucial role of genes expression in retaining one's youth."*