

# RETINOL

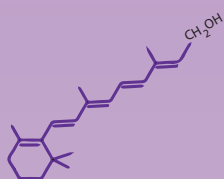
## THE ALL-TIME HERO IN ANTI-AGEING

*But do you know all about its efficacy?*

### Retinol in cosmetics

1930 | DISCOVERY ..... 1947 | PRODUCTION ..... 1980s | COSMETIC RESEARCH ..... 1990s | MARKET RECOGNITION ..... TODAY

The discovery of Retinol



DSM pioneered the large scale industrial synthesis and production of vitamins



DSM opened the door for vitamins in cosmetics with the first efficacy studies



Retinol's position as the gold standard in anti-ageing is firmly established



36% ↓ OVERALL PHOTOAGING<sup>1</sup>

84% ↓ MOTTLED PIGMENTATION<sup>1</sup>



CROW'S FEET FINE LINES<sup>1</sup> ↓ 44%

CHEEK WRINKLES<sup>1</sup> ↓ 52%

### Did you know that Retinol also helps..?



Lighten age spot appearance <sup>1,2</sup>



Smoothens cellulite appearance <sup>3</sup>



Speeds up cell turnover <sup>4</sup>



Improve even skin tone and texture <sup>1,2</sup>

1. Randhawa M. et al. One-year topical stabilized retinol treatment improves photodamaged skin in a double-blind, vehicle-controlled trial. J Drugs Dermatol. 2015, 14(3)27 1-276
2. K. Sato et al. Depigmenting mechanisms of all-trans retinoic acid and retinol on B16 melanosome cells. Biosci. Biotechnol. Biochem., 2008, 72 (10): 2589-2597
3. Am Kligman, A Pagnoni & T Stoudemayer. Topical retinol improves cellulite. Journal of Dermatological Treatment. 1999, 10:2, 119-125
4. G. Bellemere et al. Antiageing action of retinol: from molecular to clinical. Skin Pharmacol Physiol 2009, 22: 200-209