



GREEN BIOTECHNOLOGY

Dr. Björn Lárus Örvar

Executive V.P. CSO and Co-Founder

The first and only company in the world producing portfolio
of human growth factors in plants for



STEM CELL RESEARCH SKINCARE PRODUCTS

The growth factors are produced in
bioengineered barley seeds



Barley – our PRODUCTION PLATFORM

OUR PRODUCT LINES

ISOkin[™]



- Human growth factors for stem cell technology and regenerative medicine
 - 25 on market

BIOEFFECT



- “Anti-aging” skin care products with human growth factors

LEADERS IN PLANT BIOETECHNOLOGY



2008

The first in Europe to market product using plant biotechnology



2010

The first in the world to market consumer product using plant biotechnology

The COMPANY

- Founded in 2001
- Tech platform development 2001 – 2008
- Product development started 2007
- 55 employees
- Retail value est. 40 M\$ in 2017
- 38% growth est. for 2016 - 2017

BIOEFFECT 2017



27
markets

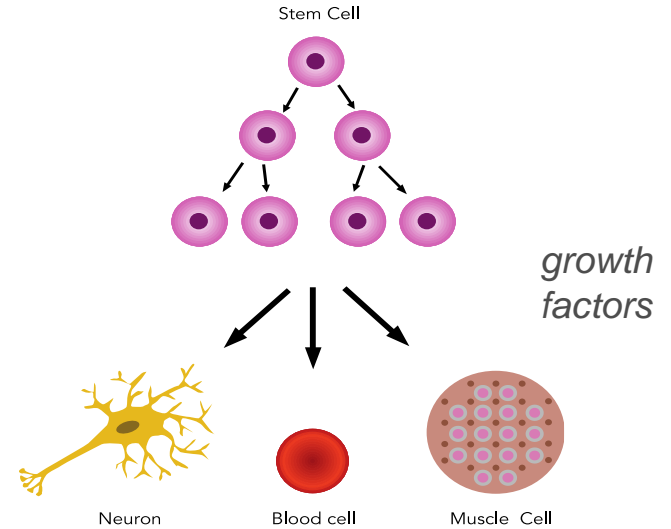


GROWTH FACTORS

WHAT ARE GROWTH FACTORS?

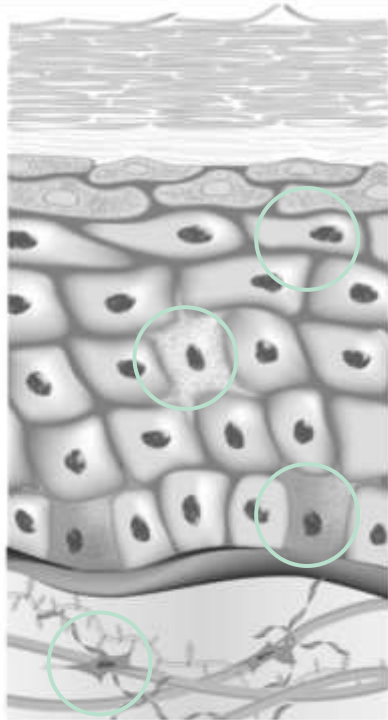
GROWTH FACTORS ARE CELLULAR MESSENGERS

- Control cell differentiation
- Stimulate cell renewal and maintenance of cells
- Important in skin biology
- PROFOUND AFFECT ON AGING



MORE THAN 300 CELL
TYPES!

GROWTH FACTORS IN THE SKIN

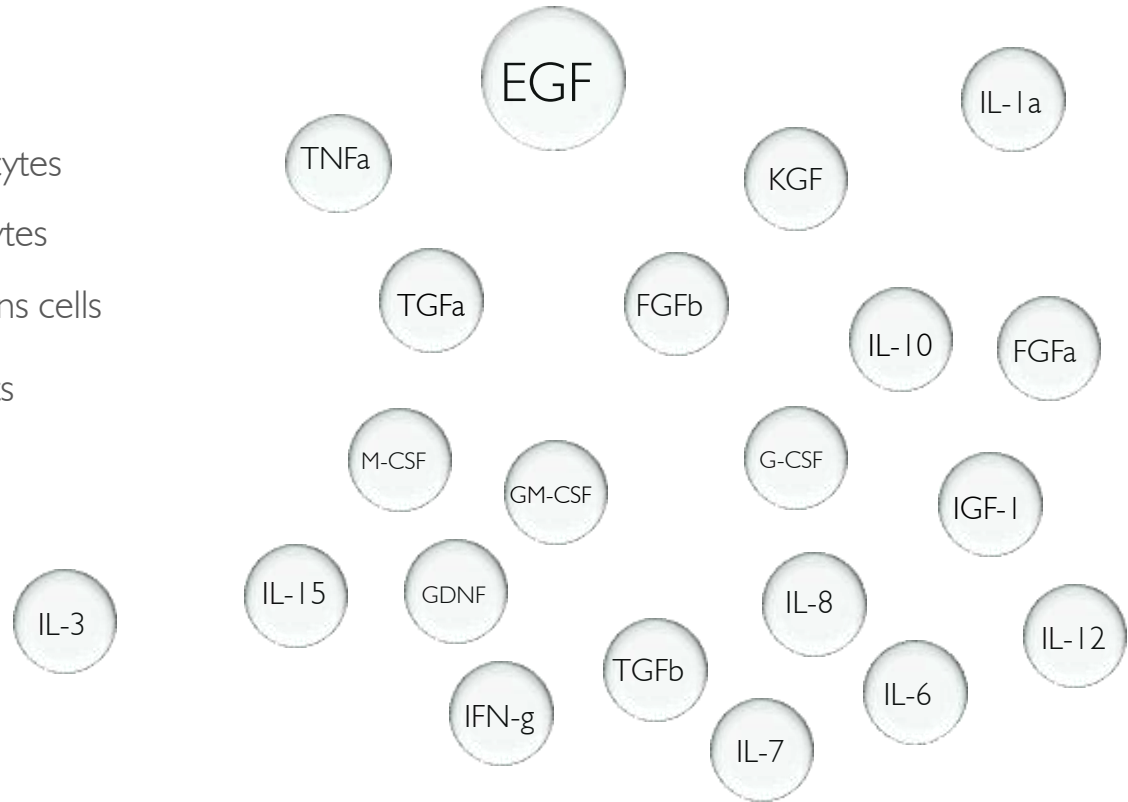


Keratinocytes

Melanocytes

Langerhans cells

Fibroblasts



GROWTH FACTORS FOR TOPICAL APPLICATION

- CHALLENGES



40 \$ per gram



45K \$ per gram



80K – 200K \$ per gram

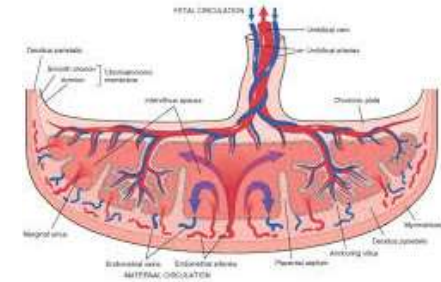
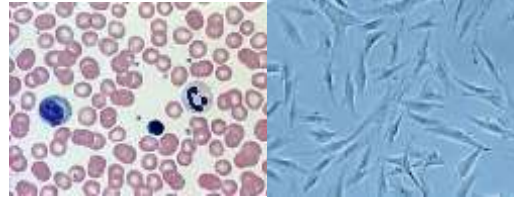
Growth factors are expensive!



OUR TECHNOLOGY

GROWTH FACTORS IN HUMANS – HOW ARE THEY PRODUCED?

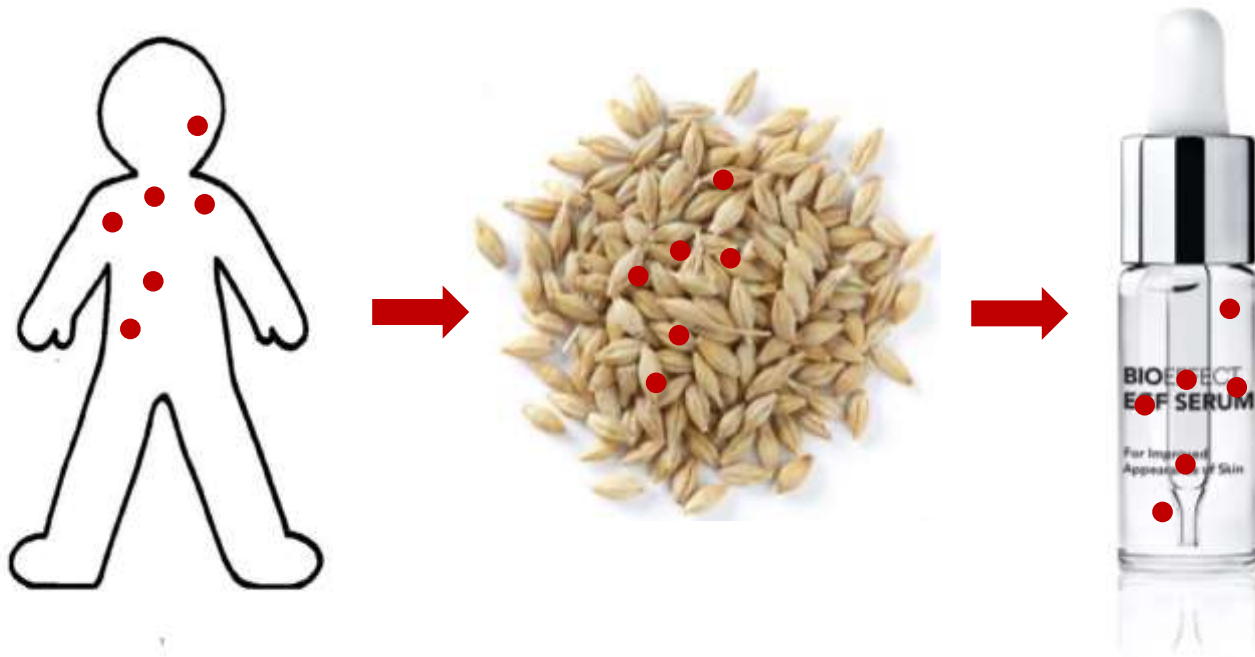
- Extraction from human /animal tissue
 - neonatal, placental, urine, blood



- Biotechnology - GMO
 - E.coli
 - Yeasts
 - Chinese hamster ovary cells



EGF IS NATURAL IN THE SKIN





The DNA program is inserted into
barley stem cells



Plants produced
from **single stem cell**



Geothermal greenhouse with negative CO₂ footprint



130.000 bioengineered barley plants producing growth factors
grown for 90 days in high-tech greenhouse

An aerial photograph of a geothermal power plant. A large, white, rectangular building with a corrugated metal roof is the central feature. A dark, winding road or path leads from the right side of the frame towards the building. The surrounding landscape is a vast, green, grassy field. In the far distance, a hazy horizon line suggests a body of water or distant land under a bright, overcast sky.

GEO THERMAL

NEGATIVE CO₂ FOOTPRINT

VOLCANIC PUMICE

GEOLOGICALLY FILTRATED WATER

ONLY SOLD IN PREMIUM DOORS AROUND THE WORLD

- High-end department stores
- High-end perfumeries
- Niche/lifestyle stores
- Spas and aesthetic clinics
- Beauty e-commerce
- Travel retail
- Selected pharmacies

Harrods

KaDeWe

Lane Crawford

■ L E
B O N
M A R
C H É
RIVE GAUCHE



SEPHORA

NET-A-PORTER
The world's favorite online luxury fashion destination



SOKOS

HARVEY
NICHOLS

HYUNDAI
DEPARTMENT STORE

SANAHUNT
LUXURY CONCEPT STORE

colette
213 RUE SAINT-HONORÉ 75001 PARIS

LIBERTY
LONDON

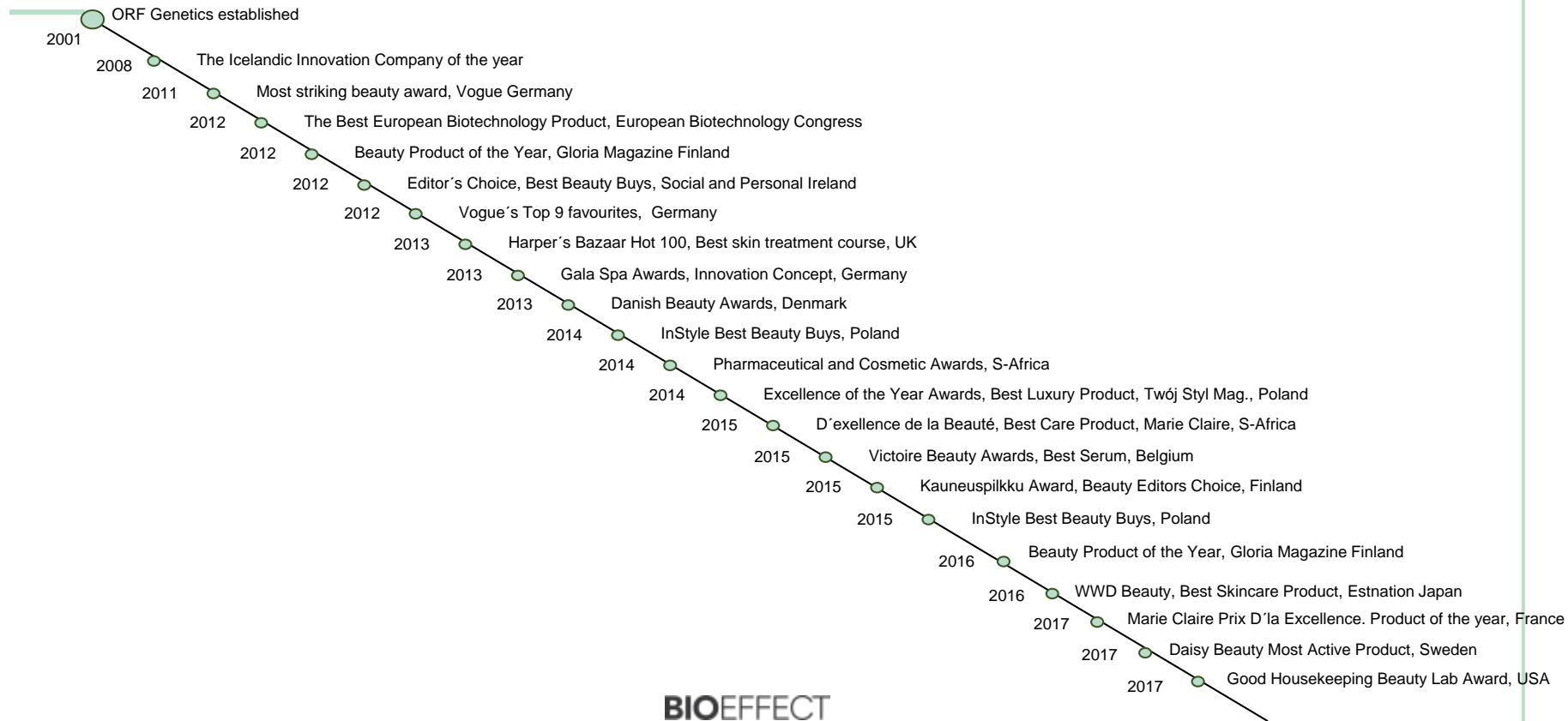
GLOBUS
SAVOIR VIVRE

M[★]agasin

Le BON MARCHÉ – Sept 2017



Over 25 International Awards



Iceland's Best Known Consumer Band

IN ONLY 6 YEARS – OVER 1500 ARTICLES IN INTERNATIONAL PRESS



