### Bioactive Collagen Peptides (BCP<sup>®</sup>) stimulate the body's own collagen metabolism







### Collagen – The Body's Protein!

Collagen is a major component of the human body. About 30% of our total body protein is collagen. Collagen is crucial for mobile joints, stable bones, healthy muscles, strong ligaments and tendons, smooth skin, glossy hair and healthy nails. It is one of the primary structural proteins of connective tissues and also abundant in blood vessels, intervertebral discs, the blood-brain barrier, the cornea, dentin and the intestinal wall – a vital component of our whole body.

# Bioactive Collagen Peptides (BCP<sup>®</sup>) stimulate collagen metabolism

GELITA BCP<sup>®</sup> include a range of specific peptides optimized for targeted health benefits. They directly stimulate the metabolism of target connective tissue cells involved in collagen biosynthesis. The peptides are derived from a highly controlled production process and characterized by their unique peptide fingerprint. GELITA BCP<sup>®</sup> also provide a number of physiological and technical benefits making them the perfect supplement to realize innovative product ideas in the fields of health, beauty and sports nutrition.

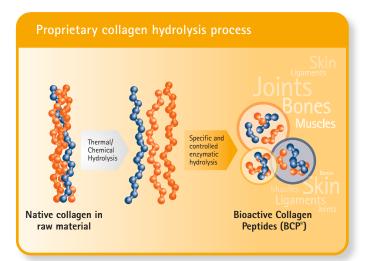


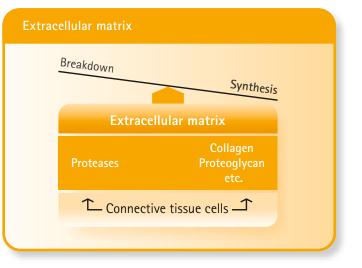
### The benefits of Bioactive Collagen Peptides (BCP<sup>®</sup>) to the extracellular matrix are based on two mechanisms:

- 1) Stimulate cell metabolism
- 2) Supply of typical collagen amino acids as valuable building blocks

#### Bioactive Collagen Peptides (BCP®)

Skin Health	Fibroblasts	VERISOL®
Joint Health	Chondrocytes	FORTIGEL®
Bone Health	Osteoblasts/Osteoclasts	FORTIBONE®
Ligaments/Tendons	Ligamentocytes/Tenocytes	<b>TENDOFORTE</b> <sup>®</sup>
Body Toning	Muscle cells/Resistance exercise	<b>BODYBALANCE®</b>
Endurance	Mitochondria/Endurance performance	PeptENDURE <sup>®</sup>







#### BODYBALANCE<sup>®</sup> – Improve and maintain fitness and shape

Collagen is an important protein source, providing the nutrients required for the many processes that take place in muscles and cells. Physically active people especially have an increased requirement for protein supply. But elderly populations can also benefit from regular supplementation of protein because aging is associated with loss of muscle mass and muscle strength along with an increase in body fat.

With BODYBALANCE<sup>®</sup>, GELITA offers specific Bioactive Collagen Peptides (BCP<sup>®</sup>) optimized to support body toning and increase of muscle strength in combination with resistance exercise. Protein consumption is one of the most crucial nutritional factors for maintaining muscle mass and muscle function while aging –



specifically after moderate age appropriate exercise. Make the most of it by using an optimized, highly bioavailable protein source.

Several randomized, placebo-controlled, double-blind studies have shown the potential of BODYBALANCE<sup>®</sup>. **Please contact us for more detailed information.** 

- Body toning increasing lean body mass and decreasing body fat
- Improving muscle-fat-balance and body composition
- Maintaining muscle and strength for freedom and independence





# FORTIBONE<sup>®</sup> – Healthy aging with strong and stable bones

Bone atrophy, loss of bone density and bone stability is a problem particularly post-menopausal women have to deal with. But not only them. Osteoporosis is a major public health threat for many million citizens over 60-years-old worldwide. To remain strong, bones need more than calcium. Collagen is at least as important to keep the skeletal system healthy.

FORTIBONE<sup>®</sup>, the specific Bioactive Collagen Peptides (BCP<sup>®</sup>) from GELITA stimulates osteoblast to increase production of extracellular bone matrix which is the essential framework for calcium mineralization. In addition, FORTIBONE<sup>®</sup> regulates degenerative processes by reducing protease production in osteoclasts. FORTIBONE<sup>®</sup> supplies the body with basic components for a strong and stable bone structure. This mechanism supports overall bone density, stability and exibility.

Pre-clinical and clinical research is already showing the positive effect of FORTIBONE<sup>®</sup> on the bone structure. Several scientific studies demonstrate an increase in bone mineral density – **for more information, please contact us.** 

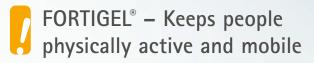
- Improving bone mass density
- Supporting bone stability and flexibility
- Stimulating bone matrix formation



More than 55 % of the population aged \_\_\_\_\_ about 50 worldwide suffers from Osteoporosis. Osteoporosis

Normal bone





Today, every fourth person suffers from joint problems and the number continues to increase. The principal cause is wear and tear of the joint cartilage brought by age, over exercise and stressed joints.

With FORTIGEL®, GELITA offers an innovative ingredient to support joint health and mobility. Optimized specific collagen peptides of FORTIGEL® have been shown to stimulate cartilage regeneration.

By keeping people physically active and mobile, FORTIGEL<sup>®</sup> can improve quality of life. More than 15 studies have been conducted proving the effect of FORTIGEL<sup>®</sup> on joint health improvement. **Please contact us for further information.** 

 Stimulating the body's own mechanisms for maintaining healthy joints and mobility

Femu

Patella

Fibula

Meniscus

Tibia

Improving activity-related joint discomfort

Change in the joint cartilage after 3 months (tissue sections)



Oesser S et al. (2007) Osteoarthritis Cartilage 15: C61-C62, 94, adapted



#### VERISOL<sup>®</sup> – Beauty from Within with the natural power of collagen

Skin properties are known to be affected by endogenous and environmental factors including aging, ultraviolet radiation, hormones and nutrition. These factors along with the natural process of aging cause the skin to lose its firmness, which results in wrinkles and a loss of elasticity. The major structural component of skin is collagen, it represents about 80% of the dry weight of skin.

VERISOL<sup>®</sup> can stimulate skin metabolism and counteract the loss of collagenous extracellular matrix from the inside. Consumers who ingest VERISOL<sup>®</sup>, the natural Bioactive Collagen Peptides (BCP<sup>®</sup>) specially optimized for beauty applications, can experience noticeably firmer and smoother skin with





fewer wrinkles. The positive effect of VERISOL® also shows an improved skin surface structure, reduced cellulite and faster nail growth with reportedly less chipping of fingernails.

Several scientific RCT experiments (randomized placebo – controlled trials) investigated the potential of VERISOL<sup>®</sup>. **For details, please contact us.** 

- Higher skin elasticity
- Reducing of wrinkles



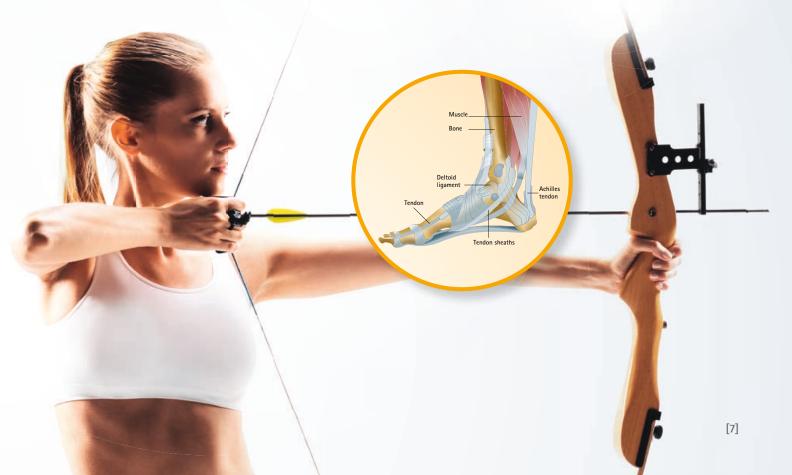
PeptENDURE® Performance Peptides



PeptENDURE<sup>®</sup> is relevant to athletes of all levels engaged in endurance exercise such as swimming, biking, and running. It maximizes training effects to increase performance and speed in the long term. For brand owners it offers a unique opportunity to stand out from the crowd and cultivate brand loyalty. PeptENDURE<sup>®</sup> is supported by preclinical research that demonstrates an increase in mitochondrial density and by high-level clinical research. **For details, please contact us.** 

## TENDOFORTE<sup>®</sup> – Strengthen ligaments and tendons

Tendons and ligaments deliver a high performance during the span of a human lifetime. Made of collagen fibers, they are the connecting elements between bones, and muscles and bones. Aging and straining may restrict their functionality and thus increase the risk of injury. TENDOFORTE<sup>®</sup>, the specific Bioactive Collagen Peptides (BCP<sup>®</sup>) from GELITA, are designed to increase health and quality of ligaments and tendons. Pre-clinical and clinical research is demonstrating the positive effect of TENDOFORTE<sup>®</sup> on ligaments and tendons. For details, please contact us.



# GELITA<sup>®</sup> Collagen Peptides – preserve quality of life

- BODYBALANCE<sup>®</sup> Increasing lean body mass and decreasing body fat
- FORTIBONE<sup>®</sup> Improving bone stability and flexibility
- FORTIGEL<sup>®</sup> Supporting mobility and joint health
- VERISOL<sup>®</sup> Increasing elasticity, reducing wrinkles of skin, improving skin surface structure, reducing cellulite and promote nail growth
- TENDOFORTE<sup>®</sup> Strengthening ligaments and tendons
- PeptENDURE<sup>®</sup> Increasing sports performance

#### GELITA promotes

- clean label (no E numbers)
- highly digestible food
- non-allergenic food
- scientific evidence

#### Make innovative product ideas a reality! GELITA Bioactive Collagen Pep most diverse applications, incl

GELITA Bioactive Collagen Peptides (BCP<sup>®</sup>) can enhance the most diverse applications, including dairy products, functional foods, dietary supplements, coated tablets and beverages.

GELITA excludes any warranty and/or liability for any and all claims arising from or in relation with statements made regarding its ingredients, including but not limited to claims based on allegedly misleading advertising and/or a violation of applicable local statutes and regulations. The positioning as well as the packaging, labelling and advertising of the client's products with GELITA's ingredients falls solely within the responsibility of the client, who must rely solely on the scientific studies to create their claims. The statements in this document have not been evaluated by the Food and Drug

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