

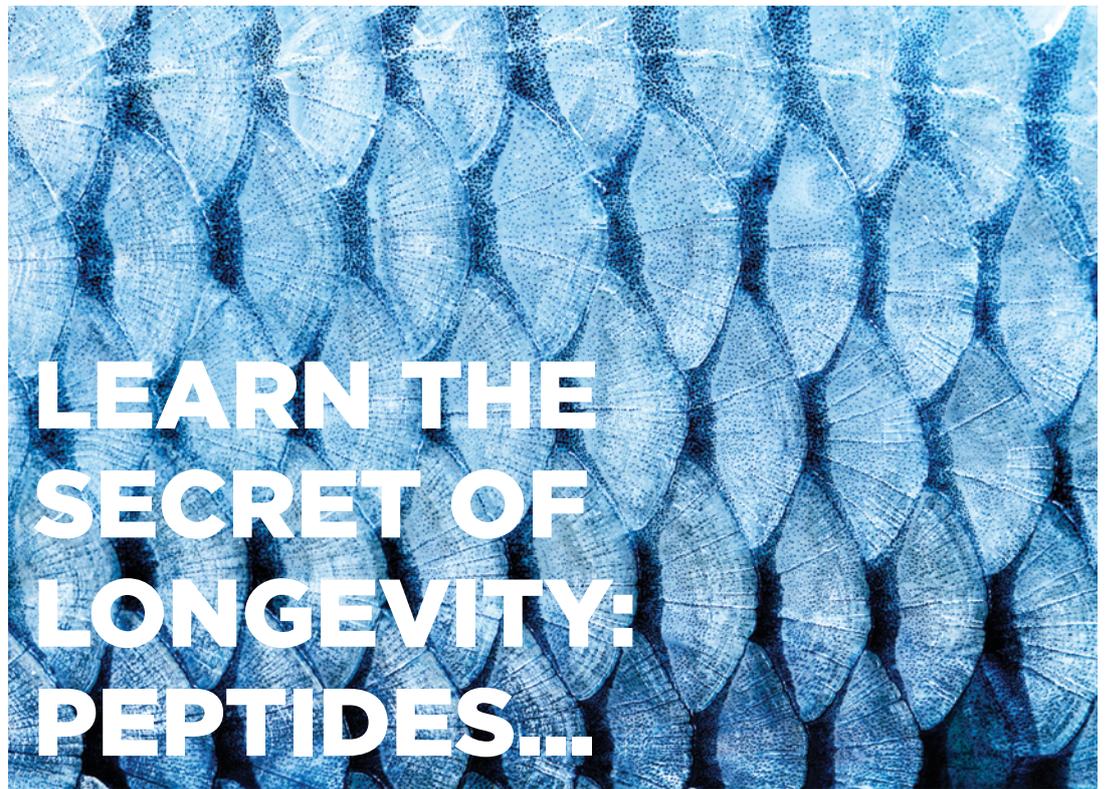
A large, clear glass hourglass is the central focus of the image. It is filled with bright green sand. The sand is piled up in the top bulb and is falling into the bottom bulb. The background is a plain, light grey color.

become a supercentenarian

ACCORDING TO SPECIALISTS
- IT'S POSSIBLE

Experts' opinion on
current approach to
anti-ageing medicine
and gerontology

International Symposium
Geneva, May 27/2017



Whenever wishing someone to live a long life, reaching the age of 100, have you wondered, whether achieving this beautiful goal was actually possible? Scientists from all over the world have also been asking themselves this question and the conclusion is unanimous: it is becoming much more probable!

Experts' opinion on current approach to anti-ageing medicine and gerontology. International Symposium, Geneva, May 27/2017.

According to the specialists sitting in Geneva a longer life in amazing shape is possible.

It is possible to slow down the ageing process by regular peptide supplementation.

Longevity was, therefore, the main topic of the recent international symposium in Geneva (<https://www.swiss-conferences.com/conferences/gerontology-symposium>), during which, gerontologists have presented their new research on slowing down the „inner“ ageing of the organism. According to the specialists, it is possible to increase the lifespan, and remain in a good shape and health at the same time. According to them it takes just a few small changes in our lifestyle to expect spectacular effects. During the conference, 5 ways of achieving longevity were mentioned. Would you like to know what was placed on the top of this list?

The greatest hope is placed in fish collagen peptides

It's their incredible properties that were so keenly highlighted in Geneva - supplementing organism with peptides, both internally and externally, allows postponing the appearance of the ageing signs. Peptides are nothing but chains of bioactive amino acids, which trigger the secretion of human growth hormone (HGH). They also facilitate fat metabolism, bone growth, and muscle tissue growth. Prof. Vladimir Khackevich Khavinson, the former President of the European section of the International Association of Gerontology and Geriatrics (IAGG), who's been



Doctors in Brazil are already successfully using tilapia skin in the treatment of wounds in hospitals' burn units.



dealing with peptides since the times of the Cold War, explains that human organism, after reaching the age of 20, slows down the production of the HGH at the rate of up to 14% per decade. Since the protein production is essential for the functioning of human organs and organism as a whole, we need tools that would stimulate the cells' activity in this field - the answer is found in peptides. Research conducted on laboratory animals proves that regular peptide supplementation results in increased longevity, suppression of carcinogenesis and significant improvement of kidney regeneration and fur condition.

To the rescue of the burnt skin

Peptides' unique properties are being used all around the world, not only on the field of struggle for longevity and great looks. Scientists from Brazil are conducting a project

(<https://youtu.be/4V-H3qU5Gbg>) in which the fish skin (Tilapia species) is used in the treatment and healing of the burn wounds. Patients included in this program were involved in accidents that resulted in 2nd and 3rd-degree burns, which are very painful and difficult to heal at the level of skin regeneration. Not to mention the psychophysical condition of the victims. Thanks to poultices - special bandages prepared from a sterilized fish skin, patients do not experience pain and the convalescence period is much shorter compared to traditional treatments. Without a daily bandage change and side effects caused by high daily consumption of painkillers, but with almost immediately visible results, patients are able to enjoy the fast recovery. Can you see what a powerful tool has been granted to us by nature? And it's within your reach!

Peptides will stimulate our cells' activity in the process of protein production which is essential for the functioning of human organs and organism as a whole.

Great results in burn units in Brazil thanks to the use of tilapia skin.



What is Biopeptide Complex and what makes it unique worldwide?

Method of extraction of bioactive proteins from fish skin developed by the team led by prof. UG, dr hab. A. Frydrychowski is unique and has been patented.

First inventions of the WellU laboratories were based on the extraction of collagen from selected species of freshwater fish. During their work, scientists working on the project were obtaining so called peptide and amino acid residues. Being already aware of the importance of amino acids and peptides for the organisms, they commenced further research that has been ongoing for over 14 years. In the process, it was decided to isolate amino acids and short peptide chains from the fish skin and to increase their density several times. The result? A product that is one of a kind on a global scale, created with Biopeptide Complex, that is a unique mixture of bioactive peptides of fish collagen and amino acids.

Long-term research of the WellU scientists lead to very interesting discoveries. It was revealed that acidic substances obtained from the fish skin in temperature that does not exceed 16°C contain, apart from the macromolecular proteins – collagen and elastin, a significant amount of small peptides. They are built from 7-29 amino acids

deriving from the aforementioned groups of proteins.

Unique method for unique results

The method of so called **cold extraction**, patented by prof. Frydrychowski, turned out to be a unique way of extracting fish collagen peptides from the fish skin without losing their biological activity, which is **crucial, considering peptides' effect on the human organism.**

Exceptional technologies on which the production process is based lead to the acquisition of the **essential active substances** from the skin of different species of fish and combining them with other '**life-giving substances**'. This combination in the form of a mixture called Biopeptide Complex proves to be incredibly effective. It is the actual **power source of Nutrivi and Larens products** that use the peptide complex as their key ingredient.

In harmony with nature

Amino acids, peptides and other proteins



included in WellU products are provided in **exact proportions needed**, just as they appear in nature. We do not isolate one, two or three amino acids, or particular peptide chain. The role of WellU laboratories is limited to researching various fish species and obtaining those extremely important substances in **biologically active form**.

Why skin only?

It is the fish skin that contains the **highest amount of desired components of the best quality**. Nutrivi and Larens products are created on the basis of the extracts of freshwater fish and saltwater fish living in moderate and warm climate. These include, among others, **different varieties of carps that**

belong to the healthiest species. They feed on plankton and algae. Their bodies contain a lot of meat and acids, but also amino acids, peptides, collagen and other proteins. For the Nutrivi production we also use the **Atlantic salmon, which is unusually rich in amino acids and peptides**. Very probably it is the healthy environment inhabited by this fish that we have to thank for such an accumulation of the beneficial elements.

The mixture of the active substances from the already mentioned fish species brings the **best nutritive results**, thanks to which WellU products are particularly effective in the field of supporting a **whole range of regenerative and healing processes in the organism**.



Interview with prof. UG, dr hab. Andrzej Frydrychowski

Breakthrough discoveries based on the advanced technology combined with the teachings of the Far East and folk medicine are, without doubts, an innovation. It can be called a concept's 'substructure' for Nutrivi's nutraceuticals and Larens' cosmeceuticals, the recipes of which are being developed under the supervision of prof. Frydrychowski (a.k.a. prof. Frydrych). It is thanks to him that we already know the important role of nutrients, with particular emphasis on amino acids, peptides, collagen and other proteins

for the human organism. The invention of the method of obtaining fish collagen and confining it, along with other precious amino acids, in the Biopeptide Complex, turned out to be a revolutionary breakthrough.

Professor, the results of the therapies conducted with the use of fish collagen peptides in the Biopeptide Complex are simply breathtaking. How could this be explained?

The technology used by us to obtain the fish peptides, which includes, among others, the method known as 'cold extraction' is **absolutely one of a kind**. Hence the results obtained during the use of products with Biopeptide Complex are unique as well.

The unmatched effects are achieved by many vital factors that are secured by our technology. To name one, it includes obtaining peptides of **correct parameters**, meaning preserving the right length of the peptide chain thanks to the adequate composition of the amino acids. Another important aspect is **retaining its 3D structure** as well as the **accurate physiological proportion of their amount in the composition of peptides**.

Why peptides? What made the world of science turn to them when looking for ways to develop the branch of medicine dealing with ageing?

Among other factors, because of the fact that peptides exhibit **species non-specificity**, which is to say, they have the same

Fish peptides, especially those obtained from the fish skin with our unique method, exhibit species non-specificity that allows them to affect human beings so greatly.



Cold extraction allows maintaining the appropriate length of the peptide chains of correct amino acids' sequence.

Our patented technology known as 'cold extraction' allows preserving the 3D structure of the peptide chains, thanks to which our products influence particular receptors in the human organism.

Due to the high biological activity, only a small dose is needed to affect the organism.

effect on different species. It means that **peptides of fish origin will actively affect human organism as well**. A similar case can be observed for example with the thymic hormone, thymosin. It is obtained from the calf thymus and yet works on human beings. That's why peptides extracted with accurate technology – like the one developed by us – prove so spectacular. We would **not be able to achieve that with commonly known hydrolyzates**.

What makes the peptides from the Biopeptide Complex so different from the already mentioned hydrolyzates that are largely present on the market?

As I have mentioned, we obtain our fish peptides in low temperature following the method we developed. It guarantees the **preservation of their spatial structure** and allows them to maintain their biological activity and healing properties. Hydrolyzates have the same composition of the amino acids and similar structure, but their 3D structure is disrupted by the method of extraction and as a result their **biological activity is significantly lower**.

Furthermore, thanks to preserving the 3D structure of the peptide chains, it is possible

to **direct them at particular receptors** that can be activated only when the special structure is maintained. This is not possible with hydrolyzates either.

What else is there to gain from the bioactivity of peptides?

As they demonstrate **high biological activity** even in small doses, it's enough to provide them in compact amounts. For instance, the daily dose of the Nutrivi's peptide drink is just 40-50 ml.

What about the absorption and assimilation of peptides fish from the Biopeptide Complex?

Our peptides get through to the organism in **90%**. It's an impressive result, as other, cheaper products require digestive enzymes to work and many people suffer from secretion disorders due to the medicines that they take or inhibitors of protein pump (such as medicines blocking the secretion of the hydrochloric acid in the stomach).

What kind of effects on organism and health can we expect with the use of the Nutrivi and Larens' products with peptides?

Peptides marked by us have an **incredibly wide spectrum of activity**. They exhibit,



Parts of the fish skin extraction's process (Biopeptide Complex).

among others, clinically proven **anti-inflammatory and anti-allergic properties** that are much higher than those found in peptides obtained with different technologies. Polypeptides demonstrate an activity that contributes to the immunological, suspensional and cytotoxic responses – which makes them helpful both in **prophylaxis and prevention**, as well as in **treating various diseases**.

They influence the thermal shock proteins, i.e. HSP70, which allows them to remarkably accelerate cell regeneration and tissue repair. It can be observed during the **treatment of burns, frostbites, and wounds and during the post-surgical recovery**.

As signal peptides they influence fibroblasts **triggering higher production of collagen** – which is vital for the state of all organs built from collagen: starting with nails, through skin, hair, gums, eyeballs to bones and cartilage.

We know that the research on influence and significance of peptides is now blooming. As a doctor and scientists, what do you reckon to be most interesting?

The spectrum of peptides' properties truly is awe-inspiring and brings a lot of hope. For example, it was observed that peptides can

activate and regulate some genes, like those in diabetes. Some are modifiers of the organism's biological response, meaning they affect the immunological system increasing its efficiency. When dealing with tumors, they demonstrate **properties that stabilize the level of albumins**.

And how would you compare peptides of the natural origin, like those found in Biopeptide Complex, with synthetically produced ones?

The most significant difference which makes natural peptides superior is that **their influence on the organism is more physiological** than one of the synthetic peptides. Whereas the size and the scope of the stimulation, for example, anti-inflammatory properties of natural peptides are **strictly dependent on the needs of the organism at given time**.

Peptides serve the important issue of **re-establishing disrupted homeostasis** by activating only those metabolic paths that are essential at the given moment. This is assured by their natural specificity. That's why it is so advantageous to maintain good health and condition to **regularly use products containing biologically active, natural peptides** found in the Biopeptide Complex as a preventive measure.

Biopeptide Complex's peptides get through to the organism in approximately 90%.

Research on cell cultures and numerous reports from patients show that our fish skin peptides also stimulate the activity of HSP, hence significantly accelerate the regeneration of cells and tissues.

When dealing with a tumor, our peptides prove to stabilize the albumins' level.



Research and scientific work regarding fish collagen peptides

Among the smaller peptides one can most often find chains consisting of 7 up to 29 amino acids deriving from the following proteins:

- collagen I a 1
- collagen I a 2
- collagen I a 3
- collagen VI a 3
- collagen VII
- pro- collagen VIII a 2
- decorin
- lumican
- histone
- histone H2A
- histone H2B
- histone H4

Protein	Found peptide	A	B	C	A deg
Collagen Ia1 (<i>Danio rerio</i> , <i>Oncorhynchus mykiss</i>)	FTAQPKERAPDFPRHFRA LMCHPINKSGEYVTFDQGCNQD IAQPAQEKAPDFPRHF SGLPGFIPFPGRGRSGEMGP QMPGERGAAGLPGKGD	15 1 1	18 1 1	4 1 1	
Collagen Ia2 (<i>Danio rerio</i>)	TSGGYDEYR LRGHPGLQMPGPNPNSGDSGPA MFGPNPNSGDSGAAGIAGPSGPRGPA PGFVGVKGDSDGVKGE		1 1 1	1 1 3	
Collagen Ia3 (<i>Danio rerio</i>)	GDPLRGGV FPGPKGT PGLQGRGD AGKEQDRGARGKGPAGRPGEAG GRTGDRGEAGFAGPAGSGPAGALGPA		4 1 1	3 1 4 8 1	
Collagen IVa1 (<i>Danio rerio</i>)	PGLQIRGD PGIPGTRGD PKGDRGQQQPFGERGATGEGGPPGIP			1 2	2 2
Protein homologous with Collagen VIa3 (<i>Tetraodon nigroviridis</i>) (six repetitions in the gene of the sequence: LLDGSDGTRSGFPAMRDF)	LLDGS DGRSGFPAMRDF PRGKDVVFLLDGSDGTRSGFPAMRDF DRVSVYQYDRD RGGAVRVTGAALQVVRD		16	8 4 1	
Protein similar to Collagen VII (<i>Danio rerio</i>)	GEQGEKGPAGPQPTGRAIGERGPEGP			1	
Procollagen VIIIa2 (<i>Mus musculus</i>)	GPRGRGLAGD				1
Decorin (<i>Danio rerio</i>)	ELGSNPLSSSGVDNGAFADLRKVSIVR FSNPVFWVQPIIT HLDGNKIKVTAD ILVNNKITIIMAKFSSLINL	1	3 3 2 2	5 1 2 3	
Protein similar to vertebrate lumican (<i>Danio rerio</i>)	DLSFNKKTIPEINSELEHL LQVSENKLLKPSGVPASLLML	6 6	13 3	16 7	
Histone H2A (<i>Danio rerio</i>)	AVLLPKTERPKAS ILELAGNAARDHKTR AVRNDEELNKLGGVITAGQGVLPNIQA	6 1 1	7 1 1	10 1 1	
Histone H2B (<i>Rattus norvegicus</i>)	SSTAAVLAQLRVPYEMPEPTKSVPAFK KVLKQVPPDTGISSKAMGIMNS	1 1			
Histone H4 (<i>Mus musculus</i>)	YTHAKRRTVTAMD				2

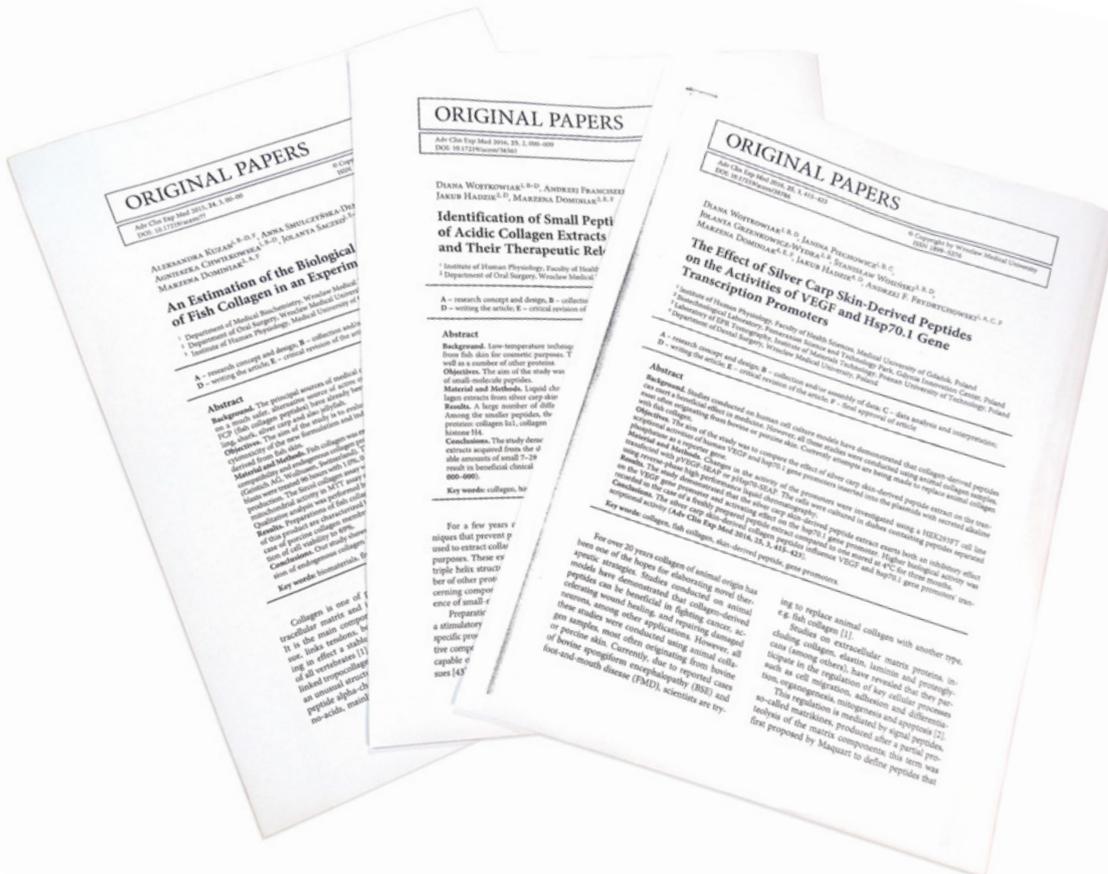
Research proved that Biopeptide Complex includes, among others, whole families of amino acids specified below and significant amounts of peptides.

As presented above, the Biopeptide Complex is particularly rich and absolutely unique. However, apart from its composition, what matters is the method of the extraction which directly reflects in the efficiency of products that contain the Biopeptide Complex.

Our research, as well as thousands of reports from all around the world, prove that the Biopeptide Complex stands a chance to become one of the most effective antiageing tools in the world.

Amino acids present in the Biopeptide Complex:

- aspartic acid
- glutamic acid
- serine
- glycine
- histidine
- arginine
- threonine
- alanine
- proline
- tyrosine
- valine
- methionine
- cysteine
- isoleucine
- leucine
- phenylalanine
- lysine



BIOPEPTIDE
COMPLEX

LONGEVITY SECRET

*experts recommend,
we already have the solution:
fish collagen peptides*

COSMETOLOGY / REHABILITATION / REGENERATION
/ HEALTHY NUTRITION / PROFILAXIS



collagen peptide gels

repair / regeneration
moisturizing
firming
lifting of the skin

serum hair & body repair spray

care
moisturizing
nourishment
regeneration

peptide drink health & beauty

regeneration and
strengthening
of the skeletal
system, cartilage
and joints' tissues

supporting the
immunological system
faster recovery after
sicknesses, surgeries
and injuries

strengthening
skin, hair, nails
and all organs
built with
collagen protein



The Biopeptide Complex's results

Wide spectrum of application:

COSMETOLOGY / REHABILITATION / REGENERATION /
HEALTHY NUTRITION / PROFILAXIS



Cosmetic and dermatological results after **3 months** treatment with the Biopeptide Complex products.



Skin irritated after low level laser therapy - **1 day** after the use of Biopeptide Complex products.

Hands with Atopic Dermatitis (AD) after **1 week** of Biopeptide Complex treatment.



Sunburn, **1 day** treatment with Biopeptide Complex.



Patient after removal of the heel osteosynthesis material – post-surgical wound, **6 weeks** of treatment with Biopeptide Complex.



Patient using Biopeptide Complex after dental treatment **2, 3 and 9 days** after the treatment.

**BIOPEPTIDE
COMPLEX**

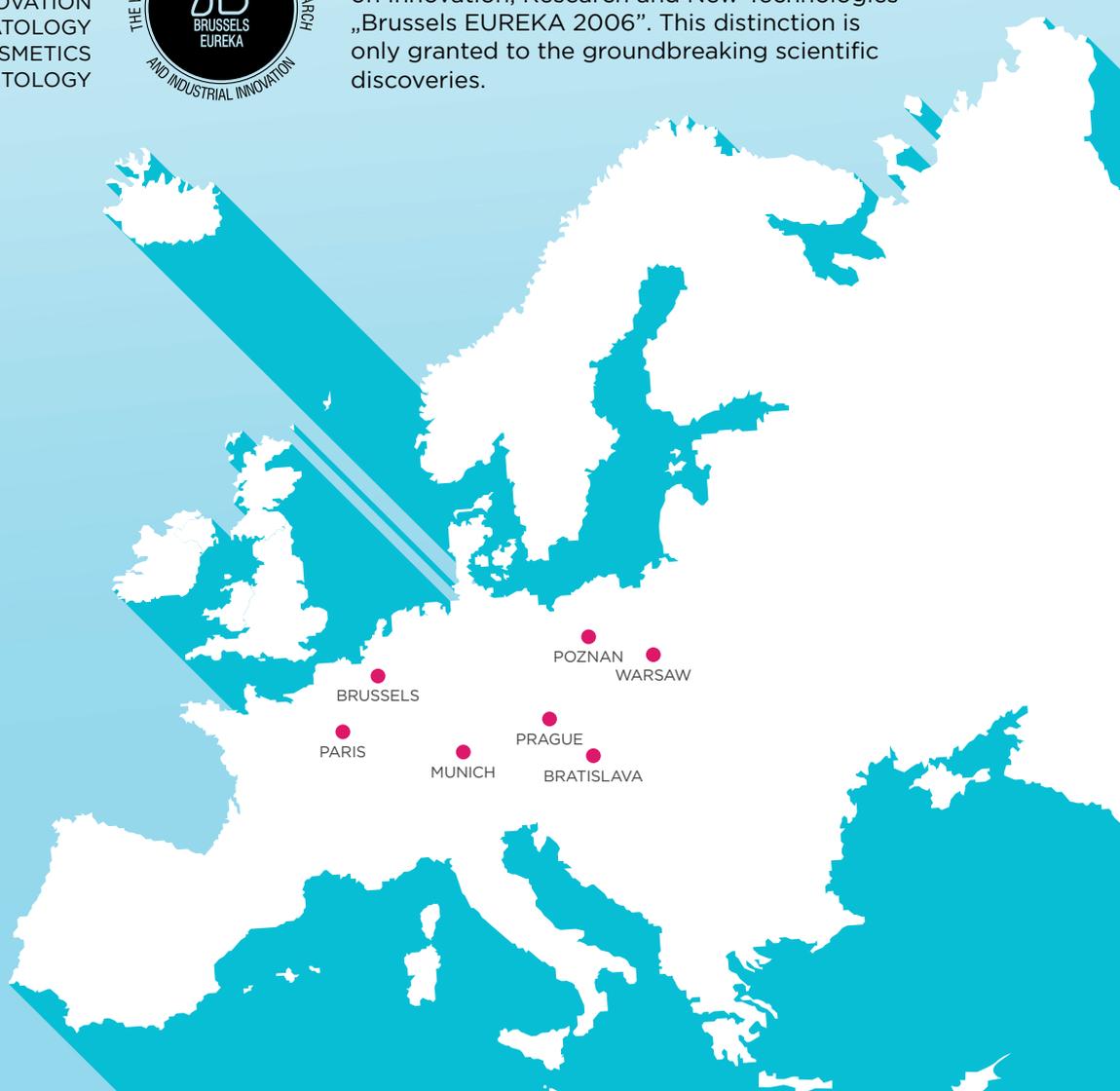
Awards and distinctions in Europe



The Biopeptide Complex awarded in the fields of:
 INNOVATION
 STOMATOLOGY
 COSMETICS
 COSMETOLOGY



We would like to particularly emphasize the silver medal won during the 55th World Exhibition on Innovation, Research and New Technologies „Brussels EUREKA 2006”. This distinction is only granted to the groundbreaking scientific discoveries.



www.wellu.eu

wellgroup